February 2023 Data Report
Springdale Cleaners
Portland, Oregon
ECSI No. 2290

Prepared for:
Oregon Department of Environmental Quality
Task Order No. 71-18-5

June 26, 2023
1469-03

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1.0 Introduction

This report describes the field activities and presents the results of the February 2023 monitoring event conducted at the Springdale Cleaners site (the Site) located at 6337 SW Capitol Highway in Portland, Oregon (Figure 1). On behalf of the Oregon Department of Environmental Quality (DEQ), Apex Companies, LLC (Apex) conducted routine groundwater and vapor sampling as part of the interim remedial measure monitoring program implemented at the Site. The groundwater monitoring was done in general accordance with the *Interim Remedial Action Work Plan* (Ash Creek, 2009). Vapor sampling was completed in general accordance with the *Vapor Mitigation Interim Remedial Action Work Plan* (Ash Creek, 2012) with deviations discussed in **Section 1.3**. This data summary report was prepared for the DEQ under Task 5 of Task Order No 71-18-5.

1.1 Purpose

The purpose of the completed sampling is to assess the current groundwater quality at the Site, the effectiveness of the groundwater and vapor mitigation interim remedial actions that have been completed at the Site (including the 2022 supplemental interim action groundwater injections), and the effect of the interim actions on indoor air quality in the Site building and the building immediately adjacent to the west.

1.2 Scope of Work

To accomplish these objectives, the scope of work that is described in this report consists of the following general tasks:

- Measure water levels in Site groundwater monitoring wells (the locations of which are shown on Figure 2);
- Collect groundwater samples from 14 groundwater monitoring wells (including JEMW-1, JEMW-2, JEMW-4, JEMW-5, JEMW-6, MW-1, MW-2, MW-3, MW-4, MW-5-20, MW-6-20, MW-7, MW-8, and MW-9);
- Analyze each of the collected groundwater samples for volatile organic compounds (VOCs) and two selected samples for dissolved gases (methane, ethane, and ethene; discussed further in **Section 1.3**);
- Collect seven ambient air samples (six interior samples and one exterior sample) and analyze for VOCs to assess air quality in the occupied breathing spaces and surrounding vicinity (discussed further in **Section 1.3**);
- Collect two sub-slab vapor samples from the monitoring points installed in the western building (discussed further in **Section 1.3**);
- Continue the operation and maintenance of the onsite vapor mitigation system; and

- Prepare a brief summary report discussing the Site activities and analytical results.

1.3 Deviations from the Scope of Work

Due to failure of the laboratory-supplied equipment, there was insufficient vapor volume in the sampling canisters for ambient samples from within Springdale Cleaners and the BE Salon (North). These samples could not be analyzed.

2.0 Background

This section presents a description of the Site and its geology and hydrogeology and summarizes the results of previous environmental activities performed at the Site.

2.1 Site Location and Description

The Springdale Cleaners operates within a strip mall located at 6337 SW Capitol Highway in Portland, Oregon (the Site location is shown on Figure 1 and a Site Plan is shown on Figure 2). Various businesses occupy the other spaces in the mall and have been impacted by chloroethene VOCs (particularly tetrachloroethene [PCE] and its degradation byproducts such as trichloroethene [TCE], cis-1,2-dichloroethene [DCE], and vinyl chloride [VC]) that have volatilized from subsurface sources. A similar building is located west of Springdale Cleaners and contains veterinary offices. This building has also been impacted by chloroethene VOC solvent vapors originating from the Site-related contamination.

2.2 Geology and Hydrogeology

The soil types encountered at the Site generally consist of shallow sandy silts and silty sands that transition to finer-grained clayey sands, clayey silts, and sandy clays with increasing depth. A distinct clay zone has been encountered at the Site at depths of about 20 feet below the ground surface (bgs) and appears to extend to a depth of at least 25 feet bgs, the maximum exploration depth at the Site. The land surface slopes gently to the south-southwest.

Shallow groundwater encountered in area monitoring wells has been observed at the Site at depths of between 2 and 7 feet bgs (shallower to the south), though free water has been first encountered during drilling activities at a depth of about 12 feet bgs and then gradually rises in the shallow monitoring wells to the final static water levels (suggesting that the upper soil unit is acting as a confining unit for an underlying confined aquifer). The depth of saturated soil in the confining unit is generally similar to the depth to groundwater (i.e. 2 to 7 feet bgs), though groundwater flow in this soil is significantly slower and thus may vary from observed groundwater depths at any given time due to delays in response to upward piezometric pressures from the underlying aquifer or downward pressures from precipitation events. The groundwater

gradient observed in groundwater monitoring wells at the Site is generally on the order of 0.04 to 0.06 feet per foot (ft/ft) to the south-southwest, varying in magnitude seasonally.

2.3 Previous Work

1999 Hydrogen Release Compound Injection. Hydrogen Release Compound (HRC) manufactured by Regenesis, Inc. (Regenesis) was injected in 1999 to address high concentrations of PCE. Two types of HRC were used: (1) approximately 1,900 pounds of regular HRC were injected near monitoring wells MW-2 and MW-4 to address dissolved-phase contamination; and (2) approximately 700 pounds of slow-release HRC were injected near JEMW-4 to address a more highly contaminated source area. Decreases in PCE and TCE concentrations were observed in both treatment areas, though the impact in the area of slow-release HRC was considerably greater (and for a longer duration). Based on this work, Site biochemical conditions were determined to be favorable for enhanced bioremediation via reductive dechlorination despite concentrations that are indicative of dense non-aqueous phase liquids (DNAPL), with significant effects of slow-release HRC in DNAPL areas still evident nine years after treatment. However, the fine-grained nature of Site soils complicates the delivery of the bioremediation substrates.

2008 Focused Site Assessment. During May and June 2008, additional site assessment work was done at the Site to collect Site data to better characterize the magnitude and extent of areas requiring treatment. From this work, it was determined that chloroethene VOCs are present in soil, groundwater, and vapor in the vicinity of the Site building at concentrations that exceed conservative risk-based concentration (RBC) screening level values (SLVs). The areas with the highest residual concentrations of chloroethene VOCs (in soil, groundwater, and soil vapor) exist beneath the Site building, particularly along the utility corridor on the west side of the building. Analytical results indicated that enhanced biodegradation of the impacted soil and groundwater in the vicinity of the historical HRC injection points resulted in the successful breakdown of chloroethene parent compounds, but that the rate of biodegradation may be limited by a scarcity of micronutrients.

2008 Bioremediation Pilot Study and Groundwater Monitoring. A pilot injection of the Regenesis 3DMe product at the Site was completed in November 2008. A total of 3,350 gallons of solution were injected into multiple application points (including within the building, beneath the utility corridor located along the west side of the building, and in a series of direct-push points angled beneath the utility corridor). Another 480 gallons of product were applied to a trench installed in the space west of the Site building. The subsequent observation of 3DMe material in monitoring wells MW-7 and MW-8 suggests that significant dispersal of the material occurred during the injection.

Approximately seven months after the initial injections of 3Dme product, collected data indicated a significant increase in reductive dechlorination activity in the immediate vicinity of the injections, though the observed extent and magnitude of total molar chloroethene VOCs remained relatively consistent with prior

sampling events. However, analysis of natural attenuation parameters suggested that the rate of degradation may be hampered by the lack of available nutrients.

2010 Vapor Mitigation Interim Action. In February 2010, an Interim Remedial Action was implemented with a focus on addressing vapor exposures. The interim action included: completion of explorations and soil-gas sampling in the greenway west of the Site building; completion of one deep boring west of the Site building; installation of a new groundwater monitoring well (MW-9); installation of a ventilation system to evacuate chloroethene solvent vapors from the utility corridor beneath the Site building; and completion of a soil vapor extraction (SVE) pilot test to assess the operating parameters and soil vapor effluent concentrations that could be achieved with an SVE system.

No elevated concentrations of VOCs were identified in soil samples, and there did not appear to be a viable preferential pathway for vapors to migrate through soil from the eastern building to the western building. Elevated concentrations of chloroethene VOCs were detected in the groundwater sample collected from the new monitoring well. Analytical results in the soil vapor samples showed that chloroethene hydrocarbon concentrations are below the RBCs for soil gas. The areas of highest PCE and TCE concentrations in groundwater were found in wells JEMW-5, MW-6-20, and MW-9. Elevated chloroethene levels in groundwater were found to extend beneath the south end of the western building and were correlated with the highest PCE and/or TCE concentrations encountered in soil vapor. The ambient air sample collected from this area was also impacted by chloroethene VOCs. Based on these observations and the shallow depth to saturated soil (about 3 feet bgs at the time of this sampling), it was concluded that the concentrations of chloroethene VOCs in soil vapor are likely originating from chloroethene VOCs in groundwater and not from the lateral migration of vapors in unsaturated soil.

2011 Vapor Monitoring. Air monitoring was conducted in April and August 2011. For the western building, concentrations of PCE and/or TCE observed in the two sampling events remained above the RBCs in three of the four tenant spaces (excepting the Hillsdale Veterinary Clinic). In general, the concentrations of PCE in the western building were lower than in the eastern building, but the TCE concentrations were markedly higher. This was likely attributable to the migration of groundwater that continued to degrade PCE to TCE as a result of the interim action groundwater treatment.

Sub-slab vapor monitoring results beneath the western building showed that the PCE and TCE concentrations were consistently below the revised RBCs. A strong correlation between the distribution of sub-slab TCE and PCE concentrations and the ambient air concentrations in the western building suggested that the PCE and TCE in ambient air were predominantly due to the intrusion of the sub-slab vapors. Adjustments were made to the building HVAC system prior to these sampling events to reduce these potential influences by increasing the pressure within the building; however, the sub-slab sample results indicated that these adjustments were not sufficient on their own to remedy the situation. Results from the outdoor ambient air samples collected in the median area between the buildings and from the building roofs

in the vicinity of the HVAC system intakes (nearest the existing ventilation discharge stack) were low or non-detect.

2012 Vapor Mitigation Interim Action. Interim remedial action activities were performed in September through November 2012 to facilitate the control of vapor intrusion into the western building and to improve groundwater conditions contributing to vapor intrusion. Site activities included the installation of vapor collection points along the eastern edge of the western building, the installation of four bioremediation substrate injection wells, and the application of 3DMe bioremediation substrate to enhance the bioremediation of chloroethene solvent hydrocarbons in groundwater. Groundwater monitoring and soil vapor/ambient air sampling were conducted to measure the effectiveness of the mitigation measures.

Chloroethene VOCs were detected in each of the six wells sampled. Each of the six wells showed a decrease in PCE and TCE concentrations (most by an order of magnitude or more). The monitoring wells also showed an increase in DCE and VC concentrations (with the exception of DCE in well MW-5-20). Groundwater concentration trends showed strong evidence of reductive dechlorination as a result of the bioremediation injections.

Chloroethene VOCs were detected in five of the six indoor ambient air samples. Overall, the concentrations of total molar chloroethenes in indoor air were observed to have a decreasing trend with the exception of BE Salon, which had an increasing trend. Chloroethene VOCs were also detected in each of the three sub-slab vapor monitoring points. PCE, TCE, and DCE concentrations in VP-4 and VP-5 (beneath the yoga studio and Bellamy Studios, respectively) were the lowest that had been observed. Chloroethenes in indoor ambient air samples were below the occupational inhalation RBC in each of the samples, with the exception of PCE in the Key Bank breakroom (which exceeded the RBC by a factor of 1.2).

2013 Supplemental Vapor Mitigation Interim Remedial Action. Interim remedial action activities were conducted in May through September 2013 to improve air quality in the Site building and the building immediately to the west. Site activities included modification of the existing vapor collection system followed by soil vapor and ambient air sampling to measure the effectiveness of the system modifications. Soil vapor/ambient air sampling was conducted in October 2013 to measure the effectiveness of the system modifications. Chloroethene VOCs were detected in each of the eight indoor ambient air samples collected in the eastern and western Site buildings, and in each of the three sub-slab vapor monitoring points, with concentrations that were relatively highest in monitoring point VP-5 (located beneath the Bellamy Studios space). No exceedances of the RBCs for chloroethenes were observed in the ambient air or sub-slab samples during the October 2013 monitoring event.

2016 Bioremediation Injections. A bioremediation injection was completed in August and September 2016. Approximately 3,150 gallons of solution were injected into multiple application points

(interior monitoring points, the utility corridor core beneath the west side of the building, previously installed injection wells, selected groundwater monitoring wells, and the previously installed exterior injection trench).

Prior to the bioremediation injection of 3DMe, an application of Bio-Dechlor Inoculum Plus (BDI Plus) was applied to the site wells. BDI Plus is an enriched microbial solution that enriches the natural microbial consortium with several species of dehalococcoides (a microbial strain known to facilitate the complete reductive dechlorination of PCE). The subsequent observations of 3DMe material in groundwater monitoring wells MW-6-10 and MW-6-20 suggest that significant dispersal of the material occurred during the injection, or the injected material encountered a preferential pathway also intersected by the monitoring wells.

Bi-Monthly System Inspection. Beginning in July 2015, Apex inspected the vapor collection system on a bi-monthly schedule to confirm its operating condition and to drain water from both the system knockout and the lateral pipe cleanout. These routine system checks have allowed for periodic system restarts, repair of the electrical relay switches, and the repair of system piping that had become loose. Since the bi-monthly inspections began in July 2015, approximately 65 gallons of water have been removed from the system (which has been managed as investigation-derived waste [IDW] as discussed in Section 3).

2022 Bioremediation Injections. A bioremediation injection was completed in August and September 2022. A total of 5,390 gallons of EOS Pro (emulsified oil), BAC-9 (microorganisms), and Clean-ER (zero valent iron [ZVI]) were injected into the subsurface during the expanded groundwater IRM activities. Slower-than-expected injection rates were encountered; therefore, solutions were concentrated and injected into fewer locations than originally planned. Injections were discontinued due to the discharge of a milky white fluid observed in Fanno Creek approximately a quarter mile southwest of the Site. Despite the work stoppage and slow injection rates, the majority of the EOS product was distributed across the Site through the 12 active and three passive injections that were completed.

During the monitoring event conducted directly after the injections (October 2022), the average PCE concentration in groundwater was about 35 percent lower than the average concentration calculated for groundwater samples collected during the pre-injection event. The average TCE concentration in groundwater decreased by 24 percent between the pre- and post-injection monitoring events. The average concentration of DCE was similar between the pre- and post-injection monitoring events. The average concentration of VC increased by 133 percent, consistent with an increase in reductive dechlorination activity.

3.0 Field Activities and Findings

3.1 Groundwater Monitoring

Groundwater Levels. On February 22, 2023, groundwater levels were measured in Site monitoring wells to the nearest 0.01 foot bgs. During this monitoring event, the measured depths to groundwater ranged from 2.21 feet (MW-8) to 7.50 feet (MW-2) and groundwater elevations ranged from 83.89 feet above mean sea level (msl) at the south end of the Site (JEMW-6) to 93.76 feet above msl at the north end of the Site (JEMW-1). These elevations are similar to historically observed groundwater elevations. In general, the groundwater gradient observed at the Site is to the south-southwest, with an overall average of about 0.043 ft/ft (also consistent with historical observations). Groundwater elevations are included in Table 1.

Monitoring Well Sampling. On February 22 and 27, 2023, groundwater samples were collected from 14 selected monitoring wells (JEMW-1, JEMW-2, JEMW-4, JEMW-5, JEMW-6, MW-1, MW-2, MW-3, MW-4, MW-5-20, MW-6-20, MW-7, MW-8, and MW-9). The locations of these wells are shown on Figure 2. Detailed groundwater sampling procedures are described in the Purging and Sampling Methods section below.

Purging and Sampling Methods. After groundwater levels were measured, each of the selected monitoring wells were purged with a peristaltic pump. Field parameters (including temperature, pH, dissolved oxygen [DO], oxidation-reduction potential [ORP], and electrical conductivity) were monitored using a multi-parameter meter and a flow-through cell to assess the effectiveness of purging activities. Field parameters are listed in Table 1. Field documentation of purging and sampling activities is included in Appendix A. Wells JEMW-4 and JEMW-5 ran dry before completion of the stabilization and were then allowed to recharge before sampling. Once field parameters stabilized or the wells recharged, groundwater samples were collected using laboratory-supplied sample containers marked with identifying information and maintained under chain-of-custody (COC) protocols.

Handling of Investigation-Derived Waste. IDW consisted of decontamination water, purge water, and personal protective equipment (PPE). Decontamination and purge water were placed in an accumulation drum stored onsite. Personal protective equipment was disposed of as solid waste.

3.2 Limited Air and Sub-Slab Monitoring

Ambient Air and Sub-Slab Vapor Sampling. Samples were collected from six indoor ambient air sampling locations, one outdoor air sampling location, and two sub-slab vapor points. The ambient air sample locations included sampling from within the former Key Bank space; State Farm; former BE Salon space front; former OmBase Yoga space; and the veterinary clinic. The one outdoor ambient air sample was collected in the median space between the two buildings. The vapor point samples were collected from existing sub-slab vapor monitoring points located within the former BE Salon space and former OmBase

Yoga space (Figure 2). Both of these spaces are currently vacant and used occasionally by the veterinary clinic.

Barometric pressures were essentially stable over the duration of the sampling from February 23 through 28, 2023, increasing slightly from 29.49 inches of mercury (inHg) to 30.34 inHg over the eight-day period. The ambient air samples were collected in accordance with the methods described in Appendix C (Sampling and Analysis Plan [SAP]) of the Vapor Mitigation Interim Remedial Action Work Plan (Ash Creek, 2012). The samples were collected in laboratory-supplied 6-liter Summa canisters.

4.0 Chemical Analyses and Results

4.1 Analyses Performed

Groundwater Samples. Groundwater from each sampled groundwater monitoring well was analyzed for VOCs by U.S. Environmental Protection Agency (EPA) Method 8260D, and selected samples (MW-7 and MW-9) were also analyzed for dissolved gases (methane, ethane, and ethene) by Method RSK175.

Ambient Air and Sub-Slab Vapor Samples. The ambient air and vapor samples collected during the February 2023 event were analyzed for selected VOCs by TO-15 analysis.

Quality Assurance and Quality Control. Quality assurance/quality control (QA/QC) procedures were used throughout this project. The review in Appendix B includes the QA assessment for this project. This QA assessment includes sampling and custody procedures, QA sampling analyses (such as analysis of duplicates), detection limit goals, and laboratory QC and QA reporting. In summary, the review noted that the data are of acceptable quality and are suitable for their intended purposes.

4.2 Groundwater Chemical Results – VOCs

Table 2 summarizes the analytical results for the chloroethene VOCs and Table 3 presents the methane, ethane, and ethene results from the two selected groundwater samples. Historic concentrations are shown in Appendix C. The concentrations of key VOCs (PCE and associated degradation compounds) and dissolved gases (methane, ethane, and ethene) are shown on Figure 3. The analytical laboratory reports are included in Appendix B and trend plots are in Appendix D.

Chloroethene VOCs were detected in 10 of the 14 sampled monitoring wells, excepting JEMW-1, JEMW-2, MW-1, and MW-3. Total chloroethene VOC concentrations were relatively highest in well MW-5-20 (consistent with prior monitoring events).

Tetrachloroethene. PCE concentrations ranged from non-detect in 10 wells to a concentration of 99,800 micrograms per liter (µg/L) in MW-8, although two of those non-detect values had significantly elevated detection limits due to the dilution of the sample required for analysis. The average PCE concentration observed in February 2023 was similar to that observed in the previous monitoring event (7,705 µg/L compared to 7,276 µg/L). These post-injection concentrations are lower than the pre-injection event in May 2022, which had an average PCE concentration of 11,257 µg/L. Average concentrations are shown in Table 4.

Degradation Byproducts. TCE was detected in five wells with detected concentrations ranging from an estimated concentration of 0.235 µg/L in JEMW-4 to 10,200 µg/L in well MW-8, with an overall average concentration of 1,219 µg/L. The average TCE concentration in February 2023 increased by about 45 percent compared to October 2022 (from 840 µg/L to 1,219 µg/L). The detected concentrations of cis-DCE, trans-DCE, and VC were relatively highest in MW-5-20, which is consistent with prior results. The average concentrations of cis-DCE, trans-DCE, and VC were consistent with the previous monitoring event.

Total Molar Ethenes. Assessment of total molar ethene concentrations can be used to evaluate changes in the total population of the chloroethene molecules as the degradation continues from the chloride-saturated PCE (the heaviest molecular weight of the chloroethenes) through the relatively chloride-poor VC, without biasing the evaluation of the concentration data based on the different molecular weights of each compound. Total molar ethene concentrations observed in JEMW-5, MW-2, MW-4, MW-5-20, MW-6-20, and MW-9 were decreased in February 2023 as compared to the October 2022 event. Concentrations in JEMW-4, MW-7, and MW-8 were increased as compared to the October 2022 event. Monitoring wells JEMW-5 and MW-9 showed the relatively lowest total molar concentrations that have been observed in these wells. The average concentration of total molar ethenes across the Site has remained relatively stable since April 2020. A summary of concentrations of the chloroethene VOC compounds observed in the February 2023 monitoring event are presented in Table 2 and are shown on Figure 3.

Risk-Based Screening. Concentrations of detected chloroethene VOCs were compared to the applicable DEQ risk-based screening levels. The detected groundwater concentrations were compared to the lower of the two potentially relevant screening levels (the DEQ RBC for the occupational exposure from vapor intrusion to indoor air, and the RBC for excavation worker exposure to impacted groundwater). Table 2 lists detected concentrations and the screening levels for each analyte. Analytical results that exceeded applicable screening levels have been shaded in the table.

PCE was detected above relevant RBCs in MW-5-20 and MW-8 (with a maximum of a factor of 18). TCE was also above the relevant RBCs in well MW-8 (by a factor of 3.4). Cis-1,2-DCE was detected above the RBC in wells MW-5-20, MW-7, and MW-8 (with a maximum of a factor of 33). Vinyl chloride was detected above the RBC in wells JEMW-5, MW-5-20, and MW-6-20 (with a maximum of a factor of 56). None of the applicable RBCs were exceeded in wells MW-1, MW-2, MW-3, MW-4, MW-9, JEMW-1, JEMW-2, JEMW-4,

and JEMW-6 (perimeter wells on the northern, eastern, and southern edges of the Site). These exceedances are generally consistent with prior monitoring events.

Reductive Dechlorination of PCE. Evidence of reductive dechlorination (the stepwise substitution of a chlorine atom on a saturated chloroethene molecule with a hydrogen atom) was observed in most monitoring wells (at varying degrees) during this event and is discussed in more detail below. Concentration trend plots for select monitoring wells are available in Appendix D.

Through reductive dechlorination, it is expected that each successive stage would be characterized by a reduction in the concentration of the more saturated chloroethene and a corresponding increase in the less saturated chloroethene (e.g., PCE concentrations would decrease while TCE concentrations increase, then in sequence the TCE concentrations would decrease while DCE concentrations would increase, and the pattern would continue until the final reduction of vinyl chloride to ethene). Given the extended-release nature of the substrate and the tight clays and silty clays encountered in the top 15 to 20 feet of the subsurface (where the majority of the wells are screened), significant reductions in chlorinated VOC concentrations are not expected for at least six months to a year. Expected results include a decrease in PCE concentrations and an initial increase of the associated degradation products (*i.e.* TCE, DCE, and VC) followed by significant decreases in the byproduct concentrations as the microorganisms continue the reductive dechlorination process.

PCE and total molar chloroethene concentrations detected in the groundwater samples collected from monitoring wells JEMW-5, MW-5-20, JEMW-6, and MW-9 decreased during the February 2023 monitoring event as compared to October 2022. Additionally, total molar chloroethenes in JEMW-5 are at an all-time low concentration. Additional groundwater monitoring is needed to assess contaminant concentration trends in these wells and other site monitoring wells as treatment progresses.

4.3 Groundwater Chemical Results – Dissolved Gases

Concentrations of methane, ethane, and ethene were detected in both sampled wells (MW-7 and MW-9). The detected concentrations of methane (which range from 11,600 µg/L to 11,700 µg/L) are indicative of microbial degradation of organics through processes other than the reductive dechlorination of the chloroethene hydrocarbons.

The ethene and ethane detections are normal byproducts of the degradation of PCE (particularly ethene, which is encountered in proportionally greater concentrations). The relatively higher ethene concentration in MW-7 suggests that reductive dechlorination continues to occur in the vicinity of this well. The concentrations of dissolved gases generally decrease with distance from the Cleaners and are relatively lower in concentration in the vicinity of MW-9.

4.4 Ambient Air and Sub-Slab Vapor Results – VOCs

Table 4 summarizes the analytical results for chlorinated VOCs in the collected ambient air samples (the locations of each sample are shown on Figure 2). Table 5 presents the analytical results from the two sub-slab vapor sample (VP-4 in the OmBase Yoga, and VP-6R in the BE Salon). The concentrations of key VOCs (PCE and associated degradation compounds) are shown on Figure 4. The analytical laboratory reports are included in Appendix B.

Ambient Air Samples. Chlorinated VOCs were detected in each of the six indoor ambient air samples. PCE was detected in each of the indoor samples with concentrations ranging from 2.66 µg/m^3 (in BE Salon) to 12.3 µg/m^3 (in OmBase Yoga). The average PCE detection from February 2023 was 5.80 µg/m^3, which is significantly decreased from 11.2 µg/m^3 in October 2022. TCE was detected in three locations (OmBase Yoga and both BE Salon locations) at concentrations ranging from 1.96 µg/m^3 to 3.54 µg/m^3. The highest total molar VOC concentration was encountered in State Farm Insurance (0.169 micromoles per meter cubed [µmol/m^3]).

Plots of PCE, TCE, and total molar ethene concentrations in the ambient air samples are included in Appendix E. The concentrations of VOCs in the indoor air samples have fluctuated significantly following the completion of the groundwater and vapor interim actions. Samples from State Farm and Key Bank were relatively stable. The BE Salon, OmBase Yoga, and Hillsdale Veterinary Clinic samples had relatively lower concentrations in February 2023 compared to the previous sampling events.

Sub-Slab Sample. Two sub-slab samples were collected during the February 2023 event from sample points VP-4 and VP-6R, which had detections of PCE, TCE, DCE, and VC. These concentrations were generally lower than the October 2022 sampling event.

Risk-Based Screening. Concentrations of chlorinated VOCs detected in the ambient air samples were compared to DEQ risk-based screening levels (occupational air inhalation RBC). Table 4 lists detected concentrations and the screening levels for each analyte. No concentrations exceeded applicable RBCs during this monitoring event. The sub-slab vapor sample was compared to DEQ risk-based concentrations for occupational exposure to soil gas. None of the detections exceeded these RBCs. It is anticipated, however, that the forthcoming 2023 revision to DEQ's vapor intrusion guidance may result in changes to this conclusion and it is recommended that the concentrations be re-evaluated following the finalization of the new guidance.

5.0 Conclusions

The gauging and sampling of 14 groundwater monitoring wells was completed in February 2023. Apex collected six indoor ambient air, one outdoor ambient air, and two sub-slab vapor samples during this event.

Chloroethene VOCs were detected in 10 of the 14 monitoring wells sampled during the February 2023 event. On average, the PCE, TCE, and DCE concentrations in February 2023 were higher than observed in the prior monitoring event (October 2022) but remained below the concentrations observed during the pre-injection monitoring event in May 2022. The average vinyl chloride and total molar ethene concentrations in February 2023 decreased compared to October 2022. The consistently elevated concentrations of chloroethenes in MW-7, MW-8, and MW-5-20 suggest that additional PCE mass is present as a source area in the vicinity of these wells, reflected in the targeting of this area with the 2022 treatment injections.

MW-8 and MW-5 are the only wells sampled during the February 2023 monitoring event that exhibited exceedances of the RBCs for either PCE or TCE. The degradation byproducts DCE and/or VC, however, were detected at concentrations above their RBCs in five wells. The results in northern, eastern, and southern perimeter wells indicate low or non-detectable concentrations of chloroethene VOCs.

Overall, the reduction of PCE and TCE concentrations has been significant since completion of the Bioremediation Pilot Study in 2008, and the total molar chloroethene concentrations for the site remain significantly lower than historical highs, suggesting that the bioremediation efforts have successfully reduced the mass of the chloroethenes in groundwater. PCE and TCE concentrations remain significantly below pre-interim action levels, though several wells show significant variability in the chloroethene concentrations (particularly in wells MW-6-20 and MW-8).

PCE and total molar chloroethene concentrations detected in the groundwater samples collected from monitoring wells JEMW-5, MW-5-20, JEMW-6, and MW-9 decreased during the February 2023 monitoring event as compared to October 2022. While the degradation of the chloroethene VOCs continues to occur across the Site, it is evident that residual source mass remains beneath the Site building (in the vicinity of, or closely upgradient of, monitoring wells MW-7 and MW-8). This likely source area was the target of the focused-area treatment which included more aggressive treatment compared with the larger area of the dissolved phase plume during the 2022 bioremediation injections. It is anticipated that the injections will continue to decrease the chloroethene concentrations through both biotic and abiotic pathways (via the reductive dechlorination and ZVI injections, respectively). The observed short-term increase in concentrations of the associated byproducts (i.e., TCE, DCE, and VC) are consistent with the increase in reductive dechlorination, which is expected to be followed by significant decreases in the byproduct concentrations as the microorganisms continue the reductive dechlorination process. This has been observed at the Site with historical work and is expected to recur with this injection (with additional effects from the abiotic influence of the ZVI).

6.0 References

Ash Creek Associates, Inc. (Ash Creek), 2009. *Interim Remedial Action Work Plan, Springdale Cleaners, ECSI No. 2290, Portland, Oregon*. November 24, 2009.

Ash Creek, 2012. *2012 Vapor Mitigation Interim Remedial Action Work Plan, Springdale Cleaners, ECSI No. 2290, Portland, Oregon.* March 14, 2012.

Table 1
Groundwater Elevations and Field Parameters
Springdale Cleaners
Portland, Oregon

Well ID and Casing Elevation (in feet)	Sample Date	Depth to Water (feet)	Groundwater Elevation (feet)	Field Parameters				
				pH	Temperature (°C)	Conductivity (mS)	DO (ppm)	ORP (mV)
JEMW-1 (98.09)	10/26/2021	5.09	93.00	6.22	16.8	381.1	0.57	-43.4
	5/24/2022	NA	--	6.55	16.9	330.6	4.20	-142.4
	10/31/2022	4.80	93.29	6.42	17.6	386.7	0.86	-54.9
	2/22/2023	4.33	93.76	5.82	14.16	767.0	0.00	-42.5
JEMW-2 (93.10)	10/26/2021	4.86	88.24	6.19	16.4	324.2	0.67	-48.6
	5/24/2022	NA	--	6.47	15.8	313.6	4.90	-191.2
	10/31/2022	4.35	88.75	6.40	16.9	323.7	0.90	-45.9
	2/22/2023	4.65	88.45	6.72	14.15	408	0.58	-21.6
JEMW-3 (89.83)	10/25/2021	Well Inaccessible						
	5/24/2022	Well Inaccessible						
	10/31/2022	Well Inaccessible						
	2/22/2023	Well Inaccessible						
JEMW-4 (94.17)	10/26/2021	6.21	87.96	6.08	15.8	759	1.80	-51.4
	5/24/2022	NA	--	6.22	14.7	1029	5.50	-37.3
	10/31/2022	8.60	85.57	6.15	16.2	1091	0.79	-62.8
	2/22/2023	2.41	91.76	Well Dewatered				
JEMW-5 (90.68)	10/26/2021	3.00	87.68	Well Dewatered				
	5/24/2022	NA	--	Well Dewatered				
	10/31/2022	10.59	80.09	Well Dewatered				
	2/22/2023	3.26	87.42	Well Dewatered				
JEMW-6 (87.04)	10/27/2021	3.17	83.87	6.18	15.7	186.6	4.11	52.9
	5/24/2022	NA	--	6.29	14.7	419.9	5.00	-174.5
	10/31/2022	3.00	84.04	6.43	15.9	359.7	3.80	-40.6
	2/22/2023	3.15	83.89	6.59	13.25	579	1.56	23.7
MW-1 (NA)	10/25/2021	5.49	--	6.04	16.8	140.0	4.37	126.5
	5/24/2022	NA	--	5.97	16.0	128.2	12.2	118.2
	10/31/2022	5.49	--	6.05	17.0	104.2	6.58	-22.7
	2/22/2023	4.59	--	6.02	13.6	182.0	5.82	203
MW-2 (NA)	10/25/2021	5.88	--	5.86	16.9	264.0	0.48	116.8
	5/24/2022	NA	--	5.88	16.9	245.2	2.70	209.2
	10/31/2022	12.49	--	5.31	16.6	1145	0.13	-26.4
	2/22/2023	7.50	--	6.26	14.08	932	0.20	-8.2
MW-3 (NA)	10/25/2021	4.50	--	6.37	15.8	255.6	195	-56.5
	5/24/2022	NA	--	6.17	15.0	268.0	2.80	247.5
	10/31/2022	NA	--	6.32	15.2	74.3	1.78	-43.1
	2/22/2023	3.45	--	5.67	12.7	366.0	0.00	-3.2
MW-4 (NA)	10/25/2021	2.08	--	6.03	16.3	382.0	0.92	-24.3
	5/24/2022	NA	--	6.2	16.4	234.6	2.10	217.2
	10/31/2022	5.40	--	6.04	16.4	365.7	0.24	-64.1
	2/22/2023	3.94	--	5.65	13.71	539.0	0.00	-42.7

Please see notes at end of table.

Table 1
Groundwater Elevations and Field Parameters
Springdale Cleaners
Portland, Oregon

Well ID and Casing Elevation (in feet)	Sample Date	Depth to Water (feet)	Groundwater Elevation (feet)	Field Parameters				
				pH	Temperature (°C)	Conductivity (mS)	DO (ppm)	ORP (mV)
MW-5-10	10/25/2021	3.82	89.36	--	--	--	--	--
(93.18)	5/24/2022	NA	--	--	--	--	--	--
	10/31/2022	NA	--	--	--	--	--	--
	2/22/2023	NA	--	--	--	--	--	--
MW-5-20	10/26/2021	4.48	88.40	5.81	16.3	2,526	0.69	-48.1
(92.88)	5/24/2022	NA	--	--	--	--	--	--
	10/31/2022	3.33	89.55	5.92	16.4	3,009	0.47	-83.7
	2/22/2023	2.27	90.61	5.42	13.7	3,804	0.00	-46.9
MW-6-10	10/25/2021	2.92	--	--	--	--	--	--
(88.79)	5/24/2022	NA	--	--	--	--	--	--
	10/31/2022	NA	--	--	--	--	--	--
	2/22/2023	NA	--	--	--	--	--	--
MW-6-20	10/27/2021	2.96	85.74	6.05	16.0	493.2	0.53	-45.4
(88.70)	5/24/2022	NA	--	--	--	--	--	--
	10/31/2022	7.71	80.99	6.25	15.4	530	0.61	-137.5
	2/22/2023	2.66	86.04	5.49	14.5	976	0.00	-251
MW-7	10/26/2021	5.11	--	Well Dewatered				
(NA)	5/24/2022	NA	--	Well Dewatered				
	10/31/2022	5.38	--	Well Dewatered				
	2/22/2023	6.63	--	5.86	14	2227	0.00	-69.7
MW-8	10/26/2021	2.78	--	6.28	15.8	390.9	3.13	13.3
(NA)	5/24/2022	NA	--	--	--	--	--	--
	10/31/2022	2.48	--	6.28	17.5	630	8.76	-101.3
	2/22/2023	2.21	--	5.84	14.23	563	0.00	-51.4
MW-9	10/27/2021	2.02	85.26	5.50	16.2	378.0	0.54	24.2
(87.28)	5/24/2022	NA	--	--	--	--	--	--
	10/31/2022	10.74	76.54	6.05	16.2	840.0	0.28	-175.3
	2/22/2023	3.96	83.32	6.31	12.18	967.0	0.27	28.3

Notes:
°C = Degrees Celsius.
mS = MicroSiemens.
DO (ppm) = Dissolved Oxygen (parts per million)].
mV = Millivolts
-- = Not Measured
NA = Not Available
ppm = parts per million

Table 2
Groundwater Sampling Analytical Results: Chloroethene VOCs
Springdale Cleaners
Portland, Oregon

Monitoring Well ID	Sample Date	Analyte Concentration in µg/L					Total Molar VOCs in µmol/L
		PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	
JEMW-1	10/26/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
	5/23/2022	<1.00 UJ	<1.00 UJ	**0.393 J**	<1.00 UJ	<1.00 UJ	**0.024 J**
	11/1/2022	**0.558 J**	**0.222 J**	**0.480 J**	<1.00	<1.00	**0.023**
	2/22/2023	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
JEMW-2	10/26/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
	5/24/2022	<1.00 UJ	<1.00 UJ	**0.176 J**	<1.00 UJ	<1.00 UJ	**0.022 J**
	11/1/2022	<1.00	**0.231 J**	**0.233 J**	<1.00	<1.00	**0.020**
	2/22/2023	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
JEMW-4	10/26/2021	<1.00	**0.226 J**	**24.6**	**6.14**	**163 J+**	**2.9**
	5/24/2022	<1.00 UJ	**0.313 J**	**2.58 J**	**3.42 J**	**5.04 J**	**0.148 J**
	11/1/2022	**0.538 J**	**0.287 J**	**2.87**	**4.75**	<1.00	**0.092**
	2/27/2023	<1.00	**0.235 J**	**57.5**	**3.94**	**7.98**	**0.766**
JEMW-5	10/26/2021	**96.4 J**	**47.5 J**	**18,500**	**430**	**6,410 J+**	**299**
	5/24/2022	**157 J**	<200 UJ	**16900 J**	**710 J**	**7250 J**	**299 J**
	10/31/2022	**127 J**	**45.6 J**	**8,550**	**401**	**2,870**	**139**
	2/22/2023	<50.0	<50.0	**3,340**	**474**	**2,860**	**85**
JEMW-6	10/27/2021	**0.612 J**	**1.08**	**29.2**	<1.00	**0.369 J**	**0.324**
	5/24/2022	**3.65 J**	**2.25 J**	**87.3 J**	**7.34 J**	**326 J**	**6.23 J**
	11/1/2022	**2.08**	**1.16**	**27.4**	**4.29**	**138.0 J-**	**2.56**
	2/22/2023	<1.00	**0.275 J**	**7.43**	**2.04**	**144**	**2.41**
MW-1	10/25/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
	5/23/2022	<1.00 UJ	<1.00 UJ	<1.00 UJ	<1.00 UJ	<1.00 UJ	<1.00 UJ
	11/1/2022	**0.493 J**	<1.00	<1.00	<1.00	<1.00	**0.025**
	2/22/2023	<1.00	<1.00	<1.00	<1.00	<1.00	**0.025**
MW-2	10/25/2021	**1,170**	**886**	**1,580**	**545**	**251 J+**	**39.7**
	5/23/2022	**1170 J**	**161 J**	**149 J**	**6.00 J**	<1.00 UJ	**9.89 J**
	11/1/2022	**37.6 J**	**29.2 J**	**7,960**	**101**	**337**	**88.99**
	2/22/2023	**24.6 J**	<50.0	**2,270 J**	**28.7 J**	**595**	**33.57**
MW-3	10/25/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
	5/23/2022	<1.00 UJ	<1.00 UJ	<1.00 UJ	<1.00 UJ	<1.00 UJ	<1.00 UJ
	11/1/2022	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
	2/22/2023	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
MW-4	10/25/2021	<5.00	**3.72 J**	**125**	**2.45 J**	**37.5 J+**	**1.96**
	5/23/2022	**5.48 J**	**64.4 J**	**115 J**	**1.39 J**	**3.55 J**	**1.78 J**
	11/1/2022	**1.16**	**0.937 J**	**482**	**10.1**	**158**	**7.62**
	2/22/2023	<1.00	<1.00	**18.8**	**0.554 J**	**25.3**	**0.61**
MW-5-20	10/26/2021	<10,000	<10,000	**647,000**	**3,830 J**	**37,300**	**7,378**
	5/24/2022	**29500 J**	**5660 J**	**658000 J**	**2390 J**	**24400 J**	**7423 J**
	10/31/2022	**41,800**	**3,140**	**614,000**	**3,690 J**	**84,900**	**8,006**
	2/27/2023	**5490 J**	<10,000	**593,000**	**2430 J**	**49,700**	**7,008**
MW-6-20	10/27/2021	**3,120**	**565**	**9,880**	**1,040**	**5,890**	**230**
	5/24/2022	**756 J**	**675 J**	**12600 J**	**1030 J**	**5620 J**	**240 J**
	10/31/2022	**591**	**877**	**7,030**	**252**	**4,680**	**160**
	2/22/2023	**1,520**	**817**	**5,430**	**84.9 J**	**3,140**	**123**

Please see notes at end of table.

Table 2
Groundwater Sampling Analytical Results: Chloroethene VOCs
Springdale Cleaners
Portland, Oregon

Monitoring Well ID	Sample Date	Analyte Concentration in µg/L					Total Molar VOCs in µmol/L
		PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	
MW-7	10/26/2021	<5,000	<5,000	**171,000**	**2,410 J**	**6,540 J+**	**1,928**
	5/24/2022	<2,000 UJ	<2,000 UJ	**98800 J**	**1160 J**	**2540 J**	**1085 J**
	11/1/2022	<2,000	**436 J**	**90,100**	**912 J**	**1,830**	**977**
	2/27/2023	<2,000	<2,000	**148,000**	**1570 J**	<2,000	**1,572**
MW-8	10/26/2021	**63,200**	**4,700**	**39,900**	<2000	**1,140 J**	**857**
	5/24/2022	**125000 J**	**7790 J**	**43400 J**	**468 J**	<2,000 UJ	**1282 J**
	10/31/2022	**58,300**	**7,220**	**93,400**	**714**	**1,070 J**	**1,394**
	2/22/2023	**99,800**	**10,200**	**78,900**	**529 J**	<2,000	**1,515**
MW-9	10/27/2021	<5.00	**1.65 J**	**127**	**34.2**	**154**	**4.15**
	5/24/2022	**8.32 J**	**1.92 J**	**53.2 J**	**33.1 J**	**48.1 J**	**1.72 J**
	10/31/2022	**0.704 J**	**2.76**	**54.3**	**37.8**	**30.1**	**1.46**
	2/22/2023	<1.00	**2.06**	**31.5**	**25.4**	**23.1**	**0.98**
	Vapor Intrusion RBC	48,000	3,700	> S	> S	880	--
	Excavation Worker RBC	5,600	3,000	18,000	180,000	960	--
Average Concentrations							
	October 2021	**5,364**	**979**	**63,441**	**664**	**4,135**	**767**
	May 2022	**11,257**	**1,104**	**59,293**	**415**	**2,943**	**739**
	October 2022	**7,276**	**840**	**58,686**	**438**	**6,858**	**770**
	February 2023	**7,705**	**1,219**	**59,361**	**368**	**4,178**	**739**

Notes:
µg/L = Micrograms per Liter
PCE = Tetrachloroethene
TCE = Trichloroethene
DCE = Dichloroethene
VOCs = Volatile Organic Compounds
µmol/L = Mircomoles per Liter
< = Not Detected Above the Method Reporting Limit
ND = Not Detected
-- = Not Analyzed or Not Available
Bolded concentrations indicate detected concentration of listed analyte.
Shaded concentrations indicate concentration exceeds lower of one or more RBCs:
Concentration exceeds lower of Vapor Intrusion or Excavation Worker RBC.
Concentration exceeds both Vapor Intrusion and Excavation Worker RBCs.
J = Data results are estimated values. Concentrations associated with this qualifier are approximate.
J+ = Data results are estimated values and may be biased high.
J- = Data results are estimated values and may be biased low.
UJ = The not detected result is estimated at the reporting limit.
Half the non-detect value is used in Total Molar VOC and Average concentrations

Table 3
Groundwater Sampling Analytical Results: Dissolved Gases
Springdale Cleaners
Portland, Oregon

Monitoring Well ID	Sample Date	Analyte Concentration in µg/L		
		Methane	Ethane	Ethene
MW-7	10/26/2021	**6,650**	**19.7**	**4,560**
	5/24/2022	**8,840**	**21.2**	**6,590**
	11/1/2022	**1,660**	<13.0	**1,130**
	2/27/2023	**11,700**	**48**	**7,060**
MW-8	10/26/2021	**835**	<13.0	**64.4**
	5/24/2022	--	--	--
	11/1/2022	--	--	--
	2/27/2023	--	--	--
MW-9	10/26/2021	--	--	--
	5/24/2022	**13,700**	**367**	**1,360**
	10/31/2022	**6,470**	**130**	**553**
	2/22/2023	**11,600**	**241**	**399**

Notes:
µg/L = Micrograms per Liter
< = Not Detected Above the Method Reporting Limit
ND = Not Detected
-- = Not Analyzed
Bolded concentrations indicate detected concentration of listed analyte.
J = Data results are estimated values. Concentrations associated with this qualifier are approximate.

Table 4
Ambient Air Sampling Analytical Results
Springdale Cleaners Site
Portland, Oregon

Sample	Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	Total Molar VOCs
		Concentrations in µg/m^3					µmol/m^3
Indoor Air Samples - East Building							
Springdale Cleaners	10/25/2021	**18.5**	**33.8**	<3.17	<3.17	<2.04	**0.365**
6337	5/27/2022	**2.76 J**	<1.07 UJ	<0.793 UJ	<0.793 UJ	<0.511 UJ	**0.017**
	10/31/2022	**17.2**	<1.07	<0.793	<0.793	<0.511	**0.104**
	2/28/2023	*Sample Not Analyzed - Insufficient Volume Due to Equipment Failure*					
State Farm	10/25/2021	**1.72**	<1.07	<0.793	<0.793	<0.511	**0.010**
Insurance	5/27/2022	**7.47 J**	**1.99 J**	**17.8 J**	<0.793 UJ	<0.511 UJ	**0.244**
6335A	10/31/2022	**2.67**	<1.07	<0.793	<0.793	<0.511	**0.016**
	2/28/2023	**4.11**	<1.07	**14.0**	<0.793	<0.511	**0.169**
Key Bank (Rear)	10/25/2021	**5.64**	**1.13**	<0.793	<0.793	<0.511	**0.042**
6335B2	5/27/2022	**8.76 J**	**2.27 J**	**25.0 J**	<0.793 UJ	<0.511 UJ	**0.328**
	11/1/2022	**4.94**	<1.07	<0.793	<0.793	<0.511	**0.030**
	2/28/2023	*Sample Not Analyzed - Insufficient Volume Due to Equipment Failure*					
Key Bank (Front)	10/25/2021	**1.72**	<1.07	<0.793	<0.793	<0.511	**0.010**
6335B1	5/27/2022	**7.81 J**	**1.89 J**	<0.793 UJ	<0.793 UJ	<0.511 UJ	**0.061**
	10/31/2022	**6.16**	**6.48**	**0.939**	<0.793	<0.511	**0.095**
	2/28/2023	**3.37**	<1.07	<0.793	<0.793	<0.511	**0.020**
Indoor Air Samples - West Building							
Hillsdale Veterinary	10/26/2021	**3.73**	<1.07	<0.793	<0.793	<0.511	**0.022**
Clinic	5/27/2022	**1.55 J**	<1.07 UJ	<0.793 UJ	<0.793 UJ	<0.511 UJ	**0.009**
6359	10/31/2022	**5.03**	<1.07	<0.793	<0.793	<0.511	**0.030**
	2/28/2023	**6.56**	<1.07	<0.793	<0.793	<0.511	**0.040**
OmBase Yoga	10/26/2021	*Sample Not Collected - Tenant was not at Site.*					--
6357	5/27/2022	**20.6**	**4.15**	**10.7**	<0.793	<0.511	**0.266**
	10/31/2022	**12.2**	**3.27**	**2.82**	<0.793	<0.511	**0.127**
	2/28/2023	**12.3**	**3.54**	**3.19**	<0.793	**1.35**	**0.155**
BE Salon [North]	10/28/2021	**8.28**	**2.31**	**10.1**	<0.793	<0.511	**0.171**
(Formerly Bellamie	5/27/2022	**51.7**	**10.4**	**44.4**	<0.793	**1.38**	**0.870**
Studios)	10/31/2022	**20.1**	**5.41**	**8.6**	<0.793	<0.511	**0.250**
6351	2/28/2023	**2.66**	**2.07**	**1.54**	<0.793	<0.511	**0.047**
BE Salon [South]	10/28/2021	**7.47**	**2.08**	**10.1**	<0.793	<0.511	**0.165**
(Former Cuts	5/27/2022	**17.1**	**3.72**	**13.6**	<0.793	<0.511	**0.271**
and Chemistry)	10/31/2022	**21.2**	**5.84**	**8.84**	<0.793	<0.511	**0.263**
6349	2/28/2023	<1.07	**1.96**	**1.49**	<0.793	<0.511	**0.030**

Please see notes at end of table.

Table 4
Ambient Air Sampling Analytical Results
Springdale Cleaners Site
Portland, Oregon

Sample	Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	Total Molar VOCs
		Concentrations in µg/m^3					µmol/m^3
Outdoor Ambient	4/12/2021	<1.36	<1.07	**0.872**	<0.793	<0.511	**0.009**
	10/25/2021	<1.36	<1.07	<0.793	<0.793	<0.511	ND
	5/27/2022	<1.36	<1.07	<0.793	<0.793	<0.512	ND
	10/31/2022	**1.46**	<1.07	<0.793	<0.793	<0.511	**0.009**
	2/28/2023	**3.11**	<1.07	<0.793	<0.793	<0.511	**0.019**
DEQ RBC (Occupational)		**47**	**2.9**	**>Pv**	**> Pv**	**2.8**	--
Average Indoor Concentrations							
	October 2021	**6.72**	**5.85**	**2.92**	ND	ND	**0.098**
	May 2022	**13.9**	**5.24**	**13.3**	**1.68**	**0.414**	**0.257**
	October 2022	**11.19**	**2.89**	**2.85**	0.40	ND	**0.114**
	February 2023	**5.80**	**2.52**	**5.06**	0.35	**1.35**	**0.077**

Notes:

µg/m^3= Micrograms per cubic meter.
µmol/m^3 = Micromole per Cubic Meter.
PCE = tetrachloroethene.
TCE = trichloroethene.
DCE = dichloroethene.
NA = Sample was not analyzed for that specific analyte.
ND = Not Detected (Laboratory Reporting Limit not identified).
Bold values indicates a detected concentration of listed analyte.
RBCs: Oregon DEQ Risk-Based Concentration for Occupational vapor inhalation (RBCair; November 1, 2015).
>Pv = Concentration above vapor pressure of analyte (maximum attainable concentration).
B = Analyte was detected in the method blank and associated sample. Result may be biased high.

Table 5
Sub-Slab Vapor Sampling Analytical Results
Springdale Cleaners
Portland, Oregon

Sample	Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	Total Molar VOCs
		Concentrations in µg/m^3					µmol/m^3
West Building Monitoring Points							
VP-4	10/28/2021	*Sample Not Collected - Due to Covid Access Restrictions*					--
	5/27/2022	**38.6 J**	**5.52 J**	**3.39 J**	<0.793 UJ	<0.511 UJ	**0.309**
	11/2/2022	**447**	**7.02**	**1.49**	<0.793	<0.511	**2.76**
	2/28/2023	**17.3**	**5.59**	**20.1**	<0.793	**2.07**	**0.39**
VP-6R	10/28/2021	**22.7**	**8.73**	**35.8**	<0.793	<0.511	**0.572**
	5/27/2022	**539**	**101**	**1,260**	**8.52**	<0.511	**17.1**
	11/2/2022	**270**	**19.2**	**50.3**	**0.808**	<0.511	**2.30**
	2/28/2023	**117**	**8.03**	**28.7**	<0.793	<0.511	**1.06**
	Soil Gas RBC	**47,000**	**2,900**	**>Pv**	**>Pv**	**2,800**	--

Notes:

µg/m^3 = Micrograms per Cubic Meter.

µmol/m^3 = Micromole per Cubic Meter.

Bold values indicates a detected concentration of listed analyte.

Highlighted values exceed relevant RBC screening level.

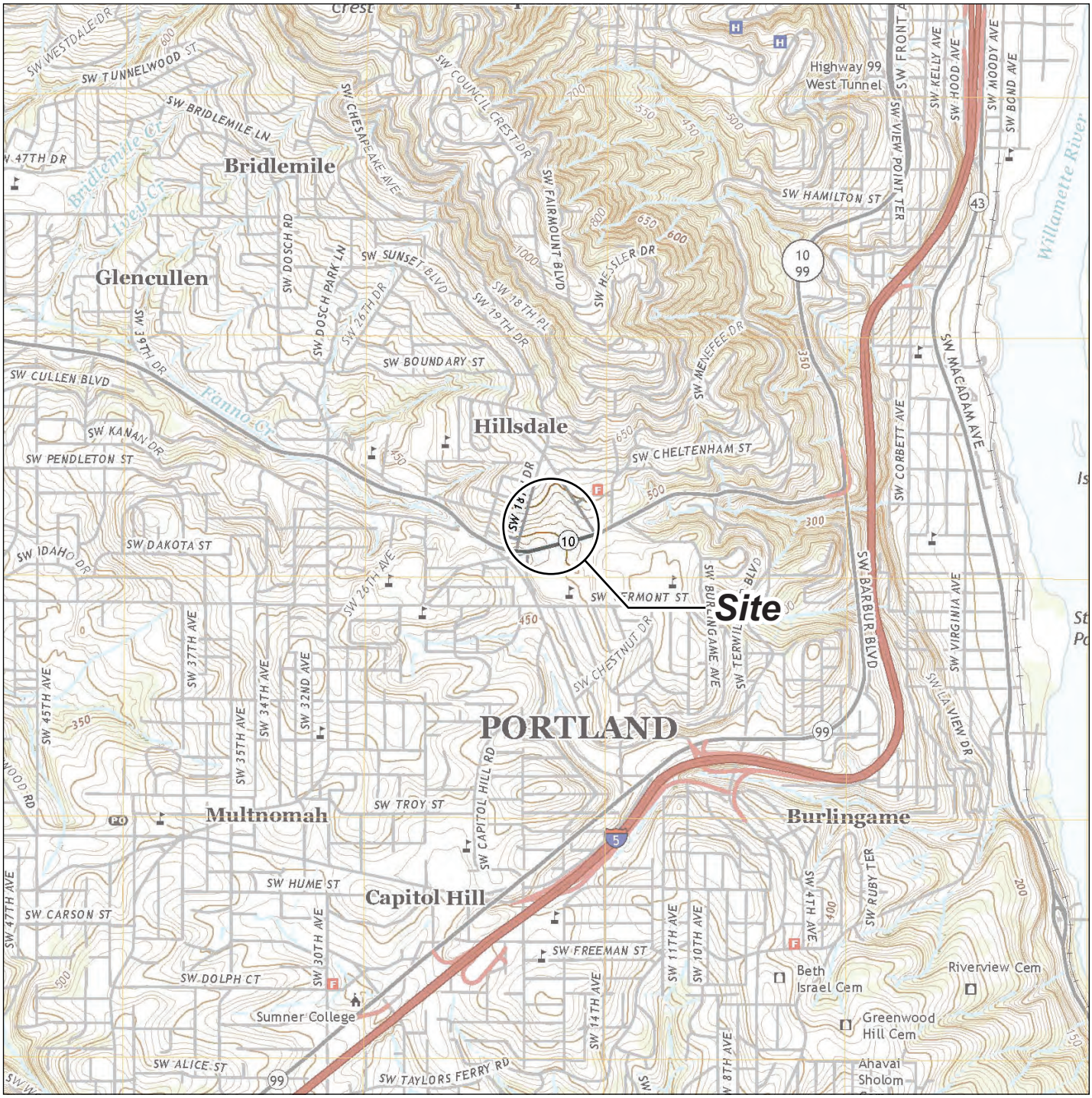
RBCs: Oregon DEQ Risk-Based Concentration for Occupational exposure to Soil Gas (RBCsv; Rev. November 1, 2015).

>Pv = Concentration above vapor pressure of analyte (maximum attainable concentration).

DCE = dichloroethene.

PCE = tetrachloroethene.

TCE = trichloroethene.



Note: Base map prepared from USGS 7.5-minute quadrangle of Lake Oswego, OR, dated 2020 as provided by USGS.gov.

0 2,000 4,000

Approximate Scale in Feet

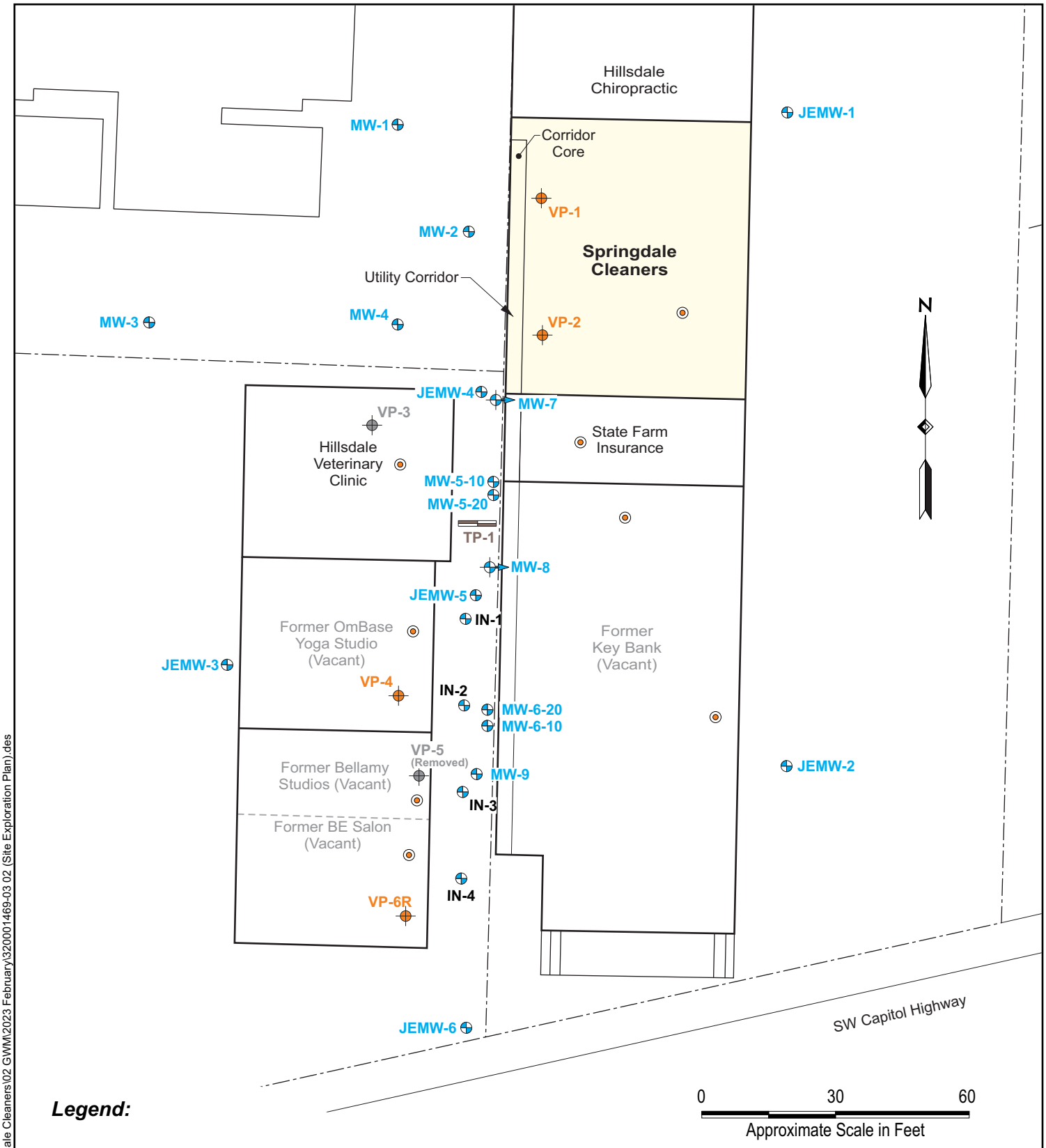
N

Site Location Map

February 2023 Data Summary Report
Springdale Cleaners
Portland, Oregon

Apex Companies, LLC 15618 SW 72nd Avenue Tigard, Oregon 97224	Project Number: 320001469-03	Drawn: JP	Approved: AE	Figure 1
	June 2023			

I:\Client\DEQ\Oregon\320001469-03 Springdale Cleaners\02 GWM\2023 February\320001469-03 01 (Site Location Map).des



Legend:

- Interior Ambient Vapor Sample Location
- VP-1 — Subslab Vapor Point
- TP-1 — Test Pit Trench
- MW-7 — Angled Monitoring Well Location
- MW-4 — Groundwater Monitoring Well Location

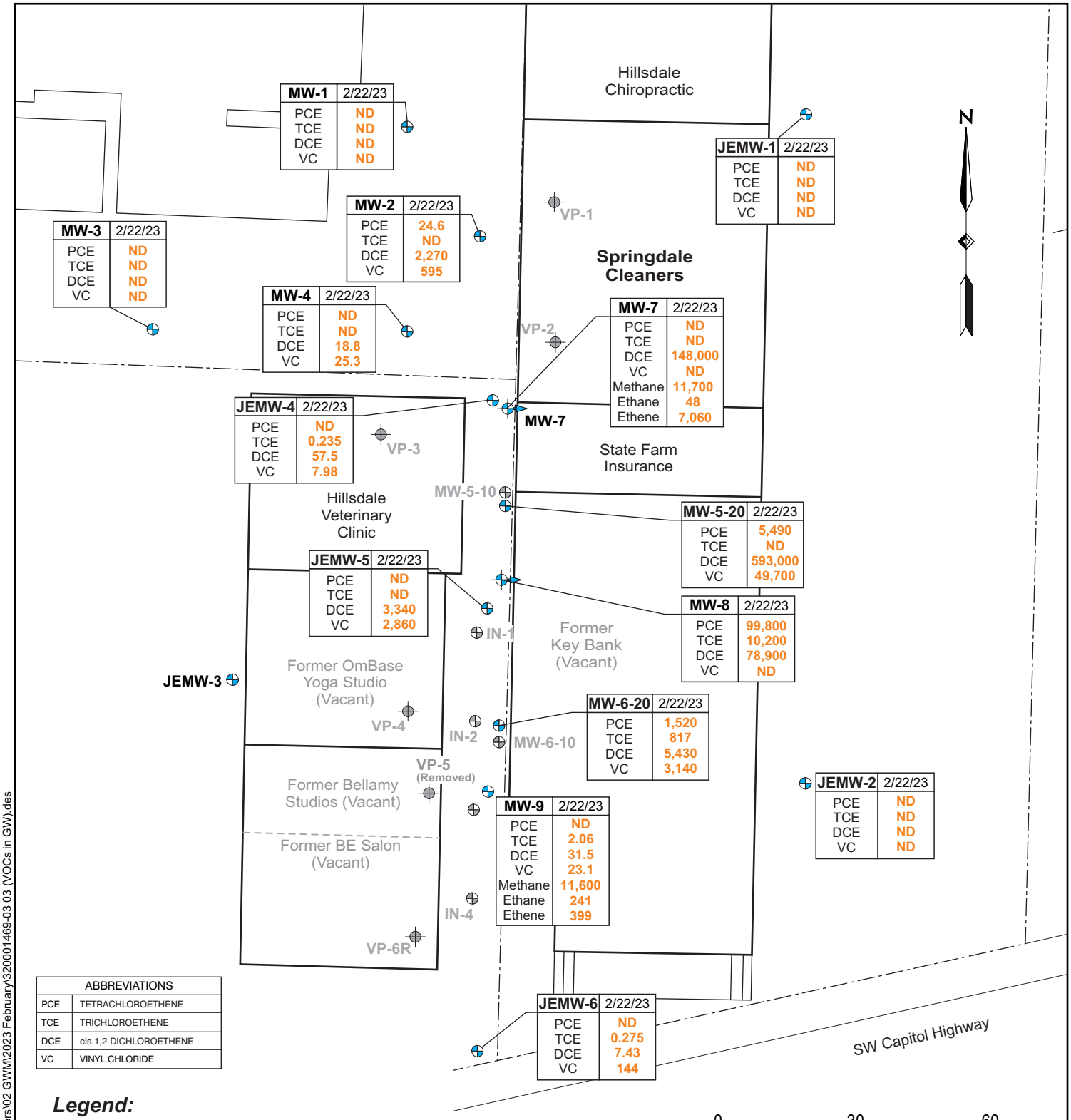
Note: Base map prepared from drawing provided by Jacobs Engineering (2001) and Tax Lot Map as provided by City of Portland GIS (PortlandMaps)

Site and Exploration Plan

February 2023 Data Summary Report
Springdale Cleaners
Portland, Oregon

Apex Companies, LLC 15618 SW 72nd Avenue Tigard, Oregon 97224	Project Number: 320001469-03	Drawn: JP	Approved: AE	Figure 2
	June 2023			

I:\Client\DEQ\Oregon\320001469-03 Springdale Cleaners\02 GWM\2023 February\320001469-03 02 (Site Exploration Plan).des



ABBREVIATIONS	
PCE	TETRACHLOROETHENE
TCE	TRICHLOROETHENE
DCE	cis-1,2-DICHLOROETHENE
VC	VINYL CHLORIDE

Legend:

- **VP-1** Subslab Sample Location/Vapor Point
- **MW-7** Angle Probe/Monitoring Well Location
- **MW-4** Groundwater Monitoring Well Location

JEMW-5	2/22/23
PCE	ND
TCE	ND
DCE	3,340
VC	2,860

Sample Identification

Sample Date

Analyte Concentration in µg/L

ND = Not Detected Above Reporting Limit

Note: Base map prepared from drawing provided by Jacobs Engineering (2001) and Tax Lot Map as provided by City of Portland GIS (PortlandMaps)

VOCs in Groundwater - February 2023

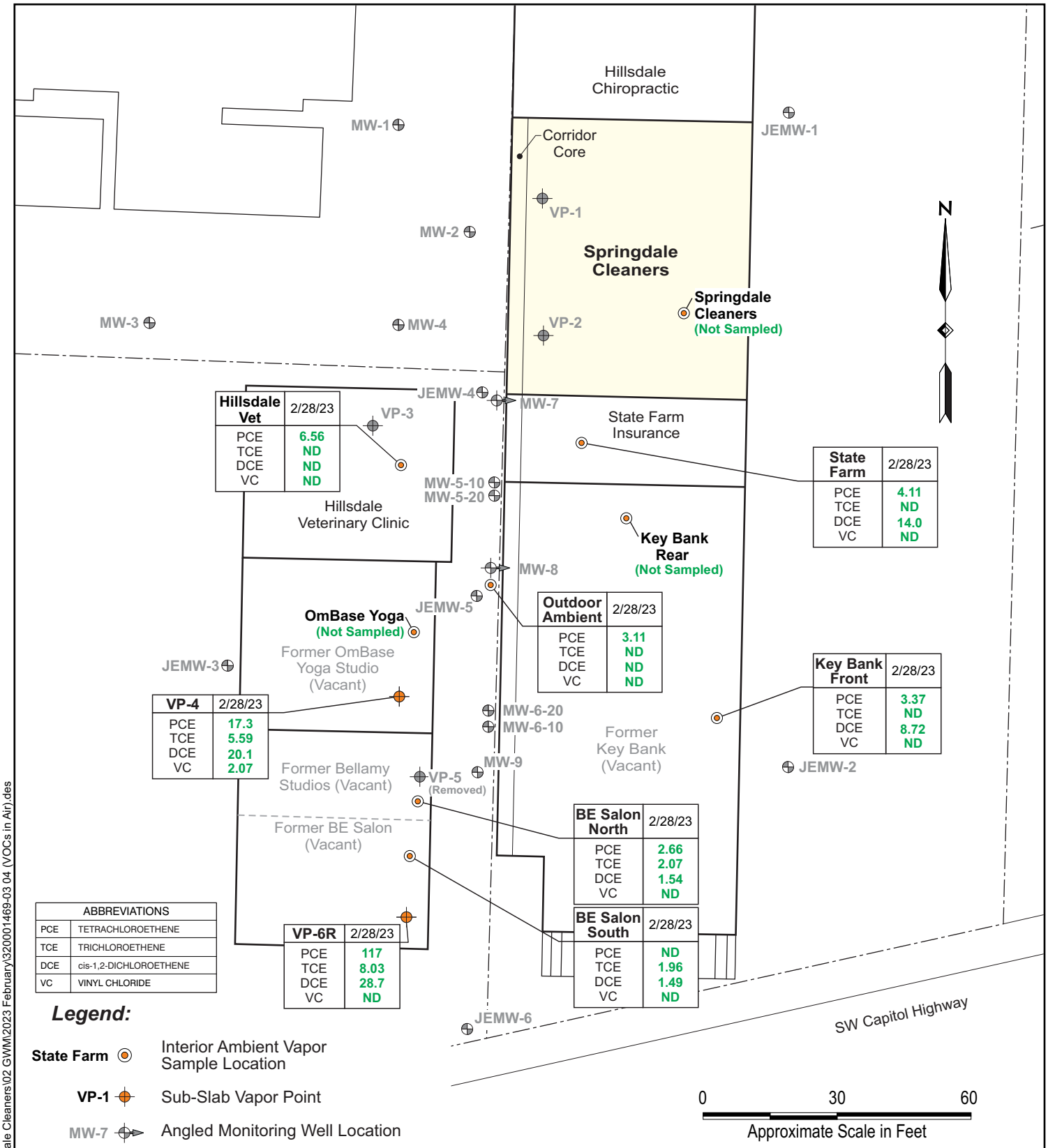
February 2023 Data Summary Report
Springdale Cleaners
Portland, Oregon

Apex Companies, LLC
15618 SW 72nd Avenue
Tigard, Oregon 97224

Project Number:	Drawn:	Approved:	Figure
320001469-03	JP	AE	3

June 2023

I:\Client\DEQ\Oregon\320001469-03 Springdale Cleaners\02 GWM\2023 February\320001469-03 03 (VOCs in GW).des



Note: Base map prepared from drawing provided by Jacobs Engineering (2001) and Tax Lot Map as provided by City of Portland GIS (PortlandMaps)

VOCs in Ambient Air and Soil Vapor - February 2023

February 2023 Data Summary Report Springdale Cleaners
Portland, Oregon

Apex Companies, LLC
15618 SW 72nd Avenue
Tigard, Oregon 97224

Project Number:	Drawn:	Approved:	Figure
320001469-03	JP	AE	4

June 2023

I:\Client\DEQ\Oregon\320001469-03 Springdale Cleaners\02 GWM\2023 February\320001469-03 04 (VOCs in Air).des

Appendix A

Sampling Sheets

WELL GAGING DATA SHEET

APEX

Client:	DEQ	Job Number:	320001469-03
Project:	Springdale	Date:	2/22/23
Weather:	20in/Snow	Sampler:	Alex & Robert
		Time In/Out:	

WATER LEVEL DATA

Well I.D.	Time	Depth to Free Product (feet)	Depth to Water (feet)	Depth to Well Bottom (feet)	Product Thickness (feet)	Water Column Height (feet)	Notes/Other Remarks
MW-1	0954		4.59	28.19			
MW-2	1001		7.50	30.23			White material/cover
MW-3	0956		3.45	20.12			
MW-4	0958		3.94	24.85			
MW-5-20	1017		2.72	19.64			
MW-6-20	1012		2.66	19.80			
D MW-7	1018		6.63	18.02			
MW-8	1015		2.21	12.02			
MW-9	1010		3.96	19.48			
JEMW-1	0951		4.33	22.50			
JEMW-2	0946		4.66	21.80			
JEMW-4	1019		2.41	22.42			
D JEMW-5	1013		3.26	19.22			
JEMW-6	1007		3.15	19.67			

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-1	Job Number:	320001469-03
Client:	DEQ	Date:	2/28/23
Project:	Springdale	Sampler:	RS
Weather:	Snow / rain	Time In/Out:	1134

WELL DATA

Well Depth:	28.14	Well Diameter:	2	Water Height	
Depth to Water:	4.54	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:				Pump Intake Depth:						Comments	
Sampling Method:				Tubing Type:							
Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1155			5.49	0.20	6.15	12.17	176	5.98	177.2		C
1158			7.04	0.20	6.07	13.43	180	5.97	194.6		C
1201			7.79	0.20	6.04	13.59	180	5.84	198.7		C
1204			8.24	0.20	6.02	13.60	181	5.82	203.0		C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-1	Sampling Flow Rate	0.20	Analytical Laboratory:	
Sample Time:	1205	Final Depth to Water:	7.56	Did Well Dewater?	

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-2	Job Number:	320001469-03
Client:	DEQ	Date:	2/22/23
Project:	Springdale	Sampler:	RS
Weather:	Snow / rain	Time In/Out:	12/7

WELL DATA

Well Depth:	30.23	Well Diameter:	2	Water Height	
Depth to Water:	4.83	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:					Pump Intake Depth:						Comments
Sampling Method:					Tubing Type:						
Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1228			5.11	0.20	6.32	13.92	1026	0.45	8.8		C
1231			6.41	0.20	6.33	14.50	999	0.33	-6.7		C
1234			6.01	0.20	6.32	14.25	952	0.25	-10.3		C
1237			7.26	0.20	6.26	14.14	932	0.20	-8.2		C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-2	Sampling Flow Rate	0.20	Analytical Laboratory:	
Sample Time:	1240	Final Depth to Water:	8.13	Did Well Dewater?	

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

Dup - 1

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-3	Job Number:	320001469-03
Client:	DEQ	Date:	2/22/23
Project:	Springdale	Sampler:	A.Evernden
Weather:	Rainy	Time In/Out:	

WELL DATA

Well Depth:	20.10 ft	Well Diameter:	2in	Water Height	
Depth to Water:	4.11ft	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:					Pump Intake Depth:					Comments	
Sampling Method:					Tubing Type:						
Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1228			4.41	0.20	5.87	12.24	363	0	-9.6		Cloudy
1226			21.69	0.20	5.72	12.77	367	0	-3.2		w/
1229			4.86	0.20	5.69	12.89	366	0	-2.3		Material floating
1232			5.06	0.20	5.68	12.83	367	0	-2.7		on
1235			5.14	0.20	5.67	12.65	366	0	-3.2		

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-3	Sampling Flow Rate		Analytical Laboratory:	
Sample Time:	1239	Final Depth to Water:		Did Well Dewater?	

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-4	Job Number:	320001469-03
Client:	DEQ	Date:	2/22/23
Project:	Springdale	Sampler:	A. Evernden
Weather:	Rainy	Time In/Out:	

WELL DATA

Well Depth:	24.85	Well Diameter:	2in	Water Height	
Depth to Water:	3.51	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:					Pump Intake Depth:					Comments	
Sampling Method:					Tubing Type:						
Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1154			3.96	0.20	5.66	13.36	541	0	-22.0		C
1157			4.13	0.20	5.64	13.49	540	0	-35.0		C
1200			4.26	0.20	5.65	13.71	539	0	-42.1		C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-4	Sampling Flow Rate		Analytical Laboratory:	
Sample Time:	1207	Final Depth to Water:		Did Well Dewater?	

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-5-20	Job Number:	320001469-03
Client:	DEQ	Date:	12/7/23
Project:	Springdale	Sampler:	A. Evernden
Weather:		Time In/Out:	1020

WELL DATA

Well Depth:		Well Diameter:	1in	Water Height	
Depth to Water:	2.69ft	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:					Pump Intake Depth:					Comments	
Sampling Method:					Tubing Type:						
Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
											C 96.
1026			11.76	0.20	5.34	13.91	3635	0.62	-31.7		C
1029			11.79	0.20	5.38	13.46	3720	0	-41.1		C
1032			12.40	0.02	5.42	13.70	3804	0	-46.9		C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-5-20	Sampling Flow Rate		Analytical Laboratory:	
Sample Time:	1036	Final Depth to Water:		Did Well Dewater?	

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-6-2.0	Job Number:	320001469-03
Client:	DEQ	Date:	2/2/23
Project:	Springdale	Sampler:	A.Evernden
Weather:	Rain/Snow	Time In/Out:	

WELL DATA

Well Depth:	19.80ft	Well Diameter:	1in	Water Height	
Depth to Water:	2.26 ft	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:		Pump Intake Depth:	Comments
Sampling Method:		Tubing Type:	

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1359			7.93	0.20	5.10	13.81	382	0.19	60.3		C
1402			11.49	0.20	5.02	13.36	511	0	45.3		C
1405			13.83	0.20	5.08	13.65	543	0	31.1		C
1408			15.33	0.21	5.34	14.17	618	0	-3.1		C
1413			17.27	0.20	5.35	14.46	652	0	-5.1		C
1440			14.29	0.20	5.47	14.31	979	0	-25		C
1449			16.61	0.20	5.49	14.51	976	0	-25		

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-6-2.0	Sampling Flow Rate		Analytical Laboratory:	
Sample Time:	1456	Final Depth to Water:		Did Well Dewater?	

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

*Recharge from 1418 to 1446

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-7	Job Number:	320001469-03
Client:	DEQ	Date:	2/27/23
Project:	Springdale	Sampler:	AEverndem
Weather:	Cloudy	Time In/Out:	1040

WELL DATA

Well Depth:	18.02ft	Well Diameter:	1in	Water Height	
Depth to Water:	6.49ft	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:				Pump Intake Depth:						Comments	
Sampling Method:				Tubing Type:							
Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1056			8.18	0.20	5.87	14.12	2316	0	-52.0		Cloudy
1059			8.18	0.20	5.86	13.84	2256	0	-63.3		
1102			8.18	0.20	5.86	14.00	2227	0	-69.7		Clear

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-7	Sampling Flow Rate		Analytical Laboratory:		
Sample Time:	1106	Final Depth to Water:		Did Well Dewater?		
# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-8	Job Number:	320001469-03
Client:	DEQ	Date:	
Project:	Springdale	Sampler:	
Weather:		Time In/Out:	

WELL DATA

Well Depth:	12.02	Well Diameter:	1in	Water Height	
Depth to Water:	1.82ft	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:		Pump Intake Depth:		Comments	
Sampling Method:		Tubing Type:			

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1528			3.94	0.20	5.33	13.19	619	0	6.8		yellow
1532			2.80	0.20	5.46	13.69	590	0	-9		+
1535			3.19	0.20	6.05	14.29	600	0	-33.1		cloudy
1538			3.00	0.20	6.76	13.99	555	0	-43.3		
1541			4.07	0.20	5.91	14.25	564	0	-49.3		
1544			3.98	0.20	5.84	14.23	563	0	-51.4		
1547											

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-8	Sampling Flow Rate		Analytical Laboratory:	
Sample Time:	1545	Final Depth to Water:		Did Well Dewater?	

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-9	Job Number:	320001469-03
Client:	DEQ	Date:	2/22/23
Project:	Springdale	Sampler:	RS
Weather:	Snow	Time In/Out:	1725

WELL DATA

Well Depth:	19.48	Well Diameter:	2	Water Height	
Depth to Water:	3.96	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:		Pump Intake Depth:	
Sampling Method:		Tubing Type:	

Comments

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1541	1741		7.21	0.22	6.30	14.16	965	0.43	48.9		C
1544	1744		8.01	0.22	6.31	13.66	966	0.28	40.6		C
1547	1747		8.56	0.20	6.31	12.77	967	0.24	34.0		C
1550	1750		8.85	0.20	6.32	12.44	966	0.24	31.8		C
1553	1753		9.20	0.20	6.32	12.21	967	0.29	30.7		C
1556	1756		9.40	0.20	6.31	12.19	967	0.27	29.2		C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-9	Sampling Flow Rate	0.20	Analytical Laboratory:	
Sample Time:	1600	Final Depth to Water:	10.21	Did Well Dewater?	

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	JEMW-1	Job Number:	320001469-03
Client:	DEQ	Date:	2/22/23
Project:	Springdale	Sampler:	A. Evernden
Weather:	Rainy	Time In/Out:	

WELL DATA

Well Depth:	22.50ft	Well Diameter:	1in	Water Height	
Depth to Water:	4.05ft	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:		Pump Intake Depth:	Comments
Sampling Method:		Tubing Type:	

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1058			6.69	0.20	6.10	13.57	1276	1.62	33.4		C
1102			7.21	0.20	5.84	13.48	1133	0	-3.4		C
1104			7.21	0.20	5.79	13.82	986	0	-243		C
1107			7.21	0.20	5.79	14.05	870	0	-353		C
1110			7.21	0.20	5.82	14.16	767	0	-425		C
	Sampling										

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	JEMW-1	Sampling Flow Rate		Analytical Laboratory:	
Sample Time:	1118	Final Depth to Water:		Did Well Dewater?	

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	JEMW-2	Job Number:	31000146 9-03
Client:	DEQ	Date:	2/22/23
Project:	Springdale	Sampler:	KS
Weather:		Time In/Out:	1140

WELL DATA

Well Depth:		Well Diameter:	3/4	Water Height	
Depth to Water:	4.35	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:				Pump Intake Depth:						Comments	
Sampling Method:				Tubing Type:							
Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1106			5.24	0.20	6.75	12.92	438	4.03	-30.1		AC
1103			6.11	0.20	6.70	13.72	422	0.94	-26.4		C
1106			6.89	0.20	6.70	13.80	418	0.81	-24.0		C
1109			7.43	0.20	6.72	14.15	408	0.58	-21.6		C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	JEMW-2	Sampling Flow Rate	0.20	Analytical Laboratory:	
Sample Time:	1110	Final Depth to Water:	7.78	Did Well Dewater?	

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	JEMW-4	Job Number:	320014469-03
Client:	DEQ	Date:	2/27/23
Project:	Springdale	Sampler:	AEvernden
Weather:	Rainy	Time In/Out:	

WELL DATA

Well Depth:	22.42	Well Diameter:	1in	Water Height	
Depth to Water:	2.04ft	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:					Pump Intake Depth:					Comments	
Sampling Method:					Tubing Type:						
Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1122			11.78	0.20	5.80	12.08	1173	0	-45.8		C
			Dewatered								

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	JEMW-4	Sampling Flow Rate		Analytical Laboratory:	
Sample Time:	1155	Final Depth to Water:		Did Well Dewater?	

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	JEMW-~~3~~ AE 5	Job Number:	520001469-03
Client:	DEQ	Date:	9/22/23
Project:	Springdale	Sampler:	RJ
Weather:	Snow	Time In/Out:	1525

WELL DATA

Well Depth:	3.26 ft	Well Diameter:	3/4	Water Height	
Depth to Water:	19.22 ft	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:				Pump Intake Depth:						Comments	
Sampling Method:				Tubing Type:							
Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1534				0.60	5.95	13.15	1237	0.4	91.2		C
~~1537~~				0.20							
1540				0.20		dry					

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

JE mw-5

Sample ID:	~~JE MW-3~~	Sampling Flow Rate		Analytical Laboratory:	
Sample Time:	1600	Final Depth to Water:		Did Well Dewater?	

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

Hydrocarbon denies

WELL MONITORING DATA SHEET

APEX

Well I.D.	JEMW-6	Job Number:	320001469-03
Client:	DEQ	Date:	2/22/23
Project:	Springdale	Sampler:	KS
Weather:	Snow	Time In/Out:	1350

WELL DATA

Well Depth:	19.67	Well Diameter:	3/4	Water Height	
Depth to Water:	3.15	Screened Interval:		x Multiplier	
Water Column Length:		Depth to Free Product:		x Casing Volumes	
Purge Volume:		Free Product Thickness:		= Purge Volume	
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:					Pump Intake Depth:					Comments	
Sampling Method:					Tubing Type:						
Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
1406		3.23	0.14		6.57	11.80	447	3.01	31.1		C
1409		3.47	0.20		6.59	11.74	532	1.93	23.4		C
1412		3.54	0.20		6.60	13.11	565	1.67	22.1		C
1415		3.60	0.20		6.59	13.24	579	1.56	23.7		C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	JEMW-6	Sampling Flow Rate	0.25	Analytical Laboratory:	
Sample Time:	1420	Final Depth to Water:	3.65	Did Well Dewater?	

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

Appendix B

Laboratory Reports and Quality Assurance Review

Appendix B – Quality Assurance Review of Laboratory Data

1.0 Introduction

This appendix documents the results of a quality assurance (QA) review of the analytical data for air/vapor and groundwater samples collected during the site assessment activities at the Springdale Cleaners site (the Site) in February 2023. Laboratory analysis of groundwater was performed by Pace Analytical National (Pace) of Mt. Juliet, Tennessee. Copies of the analytical laboratory reports are included in this appendix, including:

Report	Report Date	Sampling Event
L1590589	March 8, 2023	Groundwater Samples
L1590869	March 8, 2023	Ambient Air and Soil Vapor Samples

2.0 Data Validation

The QA review outlines the applicable quality control criteria utilized during the data review process, as well as any deviations from those criteria. Examination and validation of the laboratory summary reports include:

- Analytical preparation and quantitation methods;
- Analytical method holding times;
- Sample handling;
- Chain-of-custody handling;
- Detection and reporting limits;
- Method blank detections;
- Laboratory control samples, matrix spikes, and surrogates to assess laboratory accuracy;
- Laboratory control sample duplicates and matrix spike duplicates to assess laboratory precision; and
- Field duplicates to assess sampling and laboratory precision.

The QA review did not include a review of raw data.

2.1 Data Qualifiers

Any data that is found to have possible bias or error was qualified and flagged. The following are flags with definitions used in this QA review and data tables.

J	Data results are estimated values. Concentrations associated with this qualifier are approximate.

3.0 Analytical Methods

Groundwater samples were analyzed for volatile organic compounds (VOCs) by the United States Environmental Protection Agency (EPA) Method 8260D. Select groundwater samples were also analyzed for methane, ethane, and ethene by RSK175.

Air samples were analyzed by EPA Method TO-15 for tetrachloroethene (PCE), trichloroethene (TCE), cis- and trans-1,2-dichloroethene (DCE), and vinyl chloride.

4.0 Quality Assurance Review

Based on the review of the QA criteria, the data are considered to be of acceptable quality and are suitable for their intended purpose. Further detail of the review is discussed below.

4.1 Holding Times and Sample Receipt

The holding time is the minimum amount of time the sample can be stored before analytes start to degrade and are not representative of initial sampling concentrations. Holding times are defined by analytical methods. The air and groundwater samples included in this QA review were analyzed within the EPA recommended holding times.

Samples were received intact and unbroken upon receipt by the analytical laboratories. Groundwater samples were received by Pace below 6°C and air samples were received at ambient temperature in summa canisters. Groundwater samples were received without headspace in volatile organic analysis (VOA) sampling containers. Samples with an acid preservative were pH checked and were within method-specified criteria.

All chain-of-custodies were appropriately relinquished by the Apex Companies sampler and received by Pace. They were filled out with the correct sample ID, sampling date, sampling time, and analyses requested. There were no discrepancies found between the bottles and the chain-of-custodies received.

4.2 Reporting Limits and Detection Limits

Reporting limits are the lowest concentration an instrument is capable of accurately detecting an analyte. They are determined by the laboratory and are based on instrumentation capabilities, the matrix of field samples,

sample preparation procedures and EPA suggested reporting limits. In some cases, the reporting limits may be raised due to high concentrations of analytes or matrix interferences. Concentrations between the method detection limit and the reporting limit are estimated and 'J' flagged. Method detection limits were below applicable risk-based concentrations (RBCs) for groundwater. Reporting limits were below RBCs for ambient air and soil vapor samples.

4.3 Method Blanks

A method – or laboratory – blank is a quality control sample prepared by the laboratory from an analyte-free matrix and analyzed in an analytical batch along with environmental and other QC samples. It is used to assess laboratory contamination or background interferences.

For analytical batch WG2016489, total petroleum hydrocarbon (TPH) low fraction was detected in the method blank at a trace level between the detection and reporting limit. The associated air samples were not detected for TPH low fraction and laboratory contamination is not suspected.

4.4 Accuracy

Accuracy compares the accepted reference concentration of an analyte to the concentration determined analytically. Accuracy is measured as a percent recovery. This recovery must be within a certain range – or control limit – for the data in an analytical batch to be considered acceptable. The analytical laboratory provides quality control samples and surrogates to help determine the accuracy and acceptability of the data reported. These quality control samples and surrogates are discussed below.

4.4.1 Laboratory Control Samples

Laboratory control samples (LCS) and laboratory control duplicate samples (LCSD) were analyzed by the laboratory to assess the accuracy of the analytical methods. The LCS and LCSDs are prepared from an analyte-free matrix that is spiked with known levels of compounds of concern. The concentrations are measured and compared to the known spiked levels; expressed as a percent recovery. This percent recovery must be within method or laboratory defined control limits for data to be considered acceptable.

Acetone, di-isopropyl ether, 2-butanone (MEK), and 4-methyl-2-pentanone (MIBK) were recovered above the upper control limit for analytical batch WG2015680. The associated groundwater samples were generally not detected for these analytes with the following exception. MEK and MIBK were detected in the groundwater sample collected from well MW-9. Results should be considered estimated with a potential high bias.

4.4.2 Matrix Spikes

A matrix spike QC sample is used to assess the performance of the analytical method by determining potential matrix interferences. Matrix spike (MS) and matrix spike duplicate (MSD) analyses are performed on one environmental sample per analytical batch. A matrix spike sample uses an environmental sample that is spiked with known concentrations of analytes of interest. The matrix spike is then prepared and analyzed with the same analytical procedures as environmental samples in the analytical batch. The resulting concentration of the matrix spike is then compared to the known – or true – values added to the non-spiked environmental sample concentration. This comparison is expressed as a percent recovery. Source samples for MS/MSDs were not from the February 2023 groundwater monitoring event and sample results are accepted based on LCS/LCSD recoveries.

4.4.3 Surrogates

Surrogates are organic compounds that are similar in chemical composition to the analytes of interest but are not likely to be found in the environment. They are spiked at a known concentration into environmental and batch QC samples prior to sample preparation and analysis. Surrogate recoveries for environmental samples are used to evaluate matrix interference, sample preparation efficiency and analysis performance on a sample-specific basis. Surrogate recoveries were within control limits.

4.4.4 Instrument Calibration and Reported Results

The continuing calibration verification exceeded control limits for select VOCs in groundwater. Several non-target VOCs had calibration verification responses below the lower control limit. Detected results should be considered biased low and not detected results have an estimated detection limit.

4.5 Precision

Precision is measured by how close values of duplicate analyses are to each other. These duplicate analyses are prepared from separate aliquots of the same sample and are analyzed at the same (or similar) time. Precision in the field ensures that samples taken are representative of field concentrations; this is demonstrated by field duplicates. Analytical precision is the ability of the laboratory to reproduce results that are similar to each other; this is measured through duplicate analysis of environmental and batch QC samples. Precision is estimated by the relative percent difference (RPD) between the original analysis and the duplicate analysis.

4.5.1 Laboratory Control Samples

The analytical batch LCS concentration of an analyte is compared to the LCSD concentration of the same analyte. The relative percent difference (RPD) is calculated from these two concentrations, which must be below a certain percentage to be considered acceptable. RPD values were within laboratory control limits.

4.5.2 Matrix Spike Duplicate

Similar to the LCS/LCSD, the analytical batch MS/MSD analyte concentrations are also compared to each other and expressed as an RPD. Source samples for MS/MSDs were not from the February 2023 groundwater monitoring event and sample results are accepted based on LCS/LCSD and field duplicate RPDs.

4.5.3 Field Duplicate

A field duplicate is a second field sample collected from a selected sample location. Field duplicate samples serve as a check on laboratory precision, sampling quality, as well as potential variability of the sample matrix. The field duplicate is analyzed and compared to the original sample to assess precision. This comparison can be expressed by the RPD between the original and duplicate samples. Field duplicate samples are only controlled if the reported result is greater than five times the reporting limit.

A field duplicate was collected from monitoring well MW-2. The RPD value for cis-1,2-dichloroethene exceeded the 30 percent control limit. This result is considered estimated and is 'J' flagged.

ANALYTICAL REPORT

March 08, 2023

Oregon Dept. of Env. Quality - ODEQ

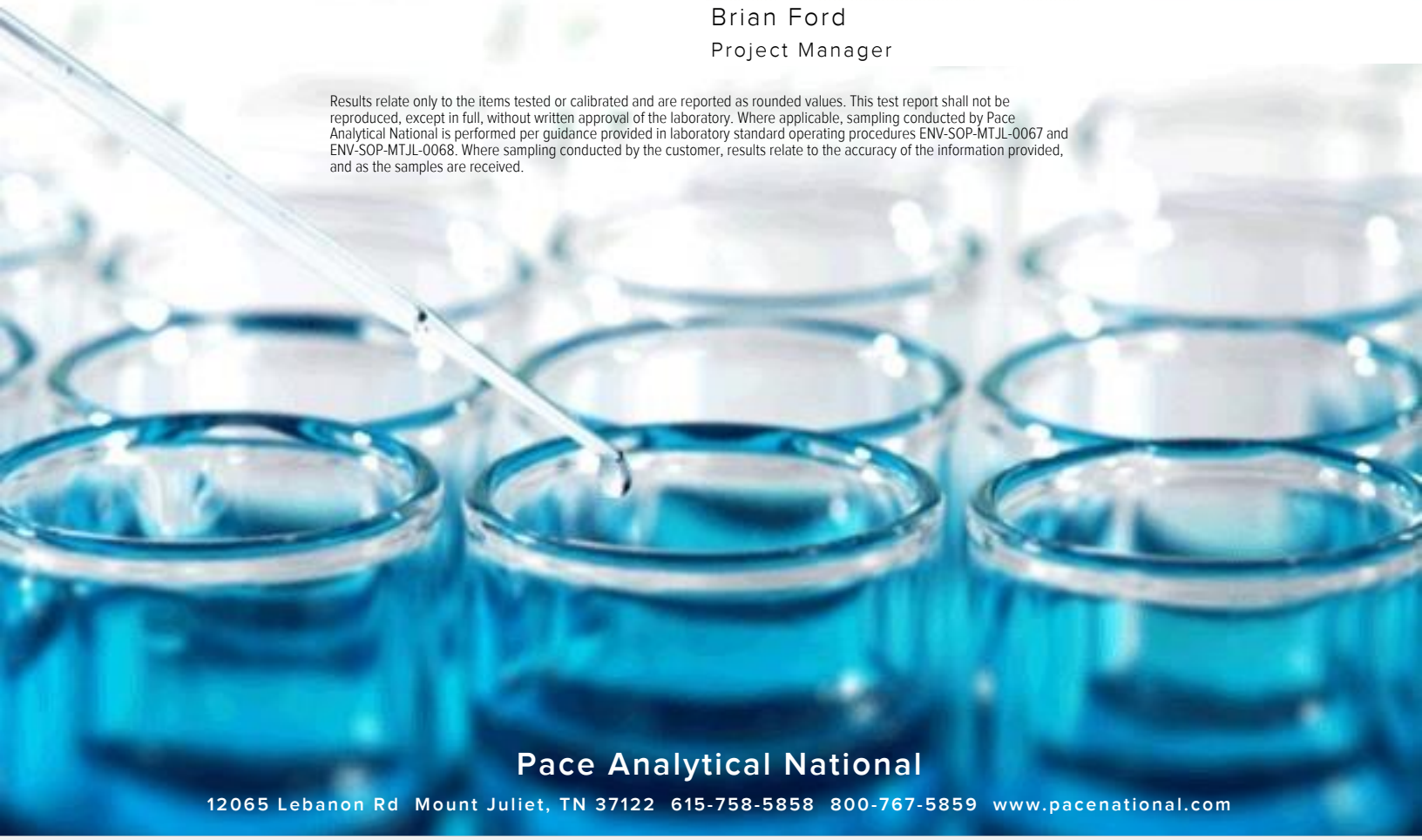
Sample Delivery Group:	L1590589
Samples Received:	03/01/2023
Project Number:	320001469-03
Description:	ODEQ - Springdale Cleaners

Report To: Mark Pugh/Karaq Master
3015 SW 1st Avenue
Portland, OR 97201

Entire Report Reviewed By:

Brian Ford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW-1 L1590589-01 GW

Collected by: Alex Evernden | Collected date/time: 02/22/23 12:05 | Received date/time: 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2015680	1	03/02/23 10:26	03/02/23 10:26	BAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2016731	1	03/03/23 23:48	03/03/23 23:48	DWR	Mt. Juliet, TN

MW-2 L1590589-02 GW

Collected by: Alex Evernden | Collected date/time: 02/22/23 12:40 | Received date/time: 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2015680	50	03/02/23 12:41	03/02/23 12:41	BAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2018363	50	03/08/23 01:50	03/08/23 01:50	ACG	Mt. Juliet, TN

MW-3 L1590589-03 GW

Collected by: Alex Evernden | Collected date/time: 02/22/23 12:39 | Received date/time: 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2015680	1	03/02/23 10:45	03/02/23 10:45	BAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2016731	1	03/04/23 00:08	03/04/23 00:08	DWR	Mt. Juliet, TN

MW-4 L1590589-04 GW

Collected by: Alex Evernden | Collected date/time: 02/22/23 12:07 | Received date/time: 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2016731	1	03/04/23 00:27	03/04/23 00:27	DWR	Mt. Juliet, TN

MW-5-20 L1590589-05 GW

Collected by: Alex Evernden | Collected date/time: 02/27/23 10:36 | Received date/time: 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2015680	10000	03/02/23 13:19	03/02/23 13:19	BAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2018363	10000	03/08/23 02:12	03/08/23 02:12	ACG	Mt. Juliet, TN

MW-6-20 L1590589-06 GW

Collected by: Alex Evernden | Collected date/time: 02/22/23 14:56 | Received date/time: 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2015680	100	03/02/23 13:38	03/02/23 13:38	BAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2018363	100	03/08/23 02:33	03/08/23 02:33	ACG	Mt. Juliet, TN

MW-7 L1590589-07 GW

Collected by: Alex Evernden | Collected date/time: 02/27/23 11:06 | Received date/time: 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method RSK175	WG2016715	1	03/04/23 11:02	03/04/23 11:02	BAW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2017295	10	03/05/23 13:22	03/05/23 13:22	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2015680	2000	03/02/23 13:57	03/02/23 13:57	BAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2018363	2000	03/08/23 02:55	03/08/23 02:55	ACG	Mt. Juliet, TN

MW-8 L1590589-08 GW

Collected by: Alex Evernden | Collected date/time: 02/22/23 15:48 | Received date/time: 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2015680	2000	03/02/23 14:16	03/02/23 14:16	BAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2018363	2000	03/08/23 03:17	03/08/23 03:17	ACG	Mt. Juliet, TN

MW-9 L1590589-09 GW

Collected by: Alex Evernden | Collected date/time: 02/22/23 16:00 | Received date/time: 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method RSK175	WG2016715	1	03/04/23 11:09	03/04/23 11:09	BAW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2017295	10	03/05/23 13:42	03/05/23 13:42	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2015680	1	03/02/23 11:05	03/02/23 11:05	BAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2016731	1	03/04/23 00:46	03/04/23 00:46	DWR	Mt. Juliet, TN

JEMW-1 L1590589-10 GW

Collected by: Alex Evernden | Collected date/time: 02/22/23 11:18 | Received date/time: 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2015680	1	03/02/23 11:24	03/02/23 11:24	BAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2016731	1	03/04/23 01:05	03/04/23 01:05	DWR	Mt. Juliet, TN

JEMW-2 L1590589-11 GW

Collected by: Alex Evernden | Collected date/time: 02/22/23 11:10 | Received date/time: 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2015680	1	03/02/23 11:43	03/02/23 11:43	BAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2016731	1	03/04/23 01:24	03/04/23 01:24	DWR	Mt. Juliet, TN

JEMW-4 L1590589-12 GW

Collected by: Alex Evernden | Collected date/time: 02/27/23 11:55 | Received date/time: 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2015680	1	03/02/23 12:03	03/02/23 12:03	BAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2016731	1	03/04/23 01:44	03/04/23 01:44	DWR	Mt. Juliet, TN

JEMW-5 L1590589-13 GW

Collected by: Alex Evernden | Collected date/time: 02/22/23 16:00 | Received date/time: 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2016546	50	03/03/23 20:48	03/03/23 20:48	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2017869	200	03/07/23 00:16	03/07/23 00:16	BAM	Mt. Juliet, TN

JEMW-6 L1590589-14 GW

Collected by: Alex Evernden | Collected date/time: 02/22/23 14:20 | Received date/time: 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2015680	1	03/02/23 12:22	03/02/23 12:22	BAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2016731	1	03/04/23 02:03	03/04/23 02:03	DWR	Mt. Juliet, TN

DUP-1 L1590589-15 GW

Collected by: Alex Evernden
Collected date/time: 02/22/23 12:40
Received date/time: 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2016546	50	03/03/23 21:07	03/03/23 21:07	ACG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Project Manager

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	J4	11.3	50.0	1	03/02/2023 10:26	WG2015680
Acrolein	U	C3	2.54	50.0	1	03/03/2023 23:48	WG2016731
Acrylonitrile	U		0.671	10.0	1	03/02/2023 10:26	WG2015680
Benzene	U		0.0941	1.00	1	03/02/2023 10:26	WG2015680
Bromobenzene	U		0.118	1.00	1	03/02/2023 10:26	WG2015680
Bromodichloromethane	U		0.136	1.00	1	03/02/2023 10:26	WG2015680
Bromoform	U		0.129	1.00	1	03/02/2023 10:26	WG2015680
Bromomethane	U		0.605	5.00	1	03/02/2023 10:26	WG2015680
n-Butylbenzene	U		0.157	1.00	1	03/02/2023 10:26	WG2015680
sec-Butylbenzene	U		0.125	1.00	1	03/02/2023 10:26	WG2015680
tert-Butylbenzene	U		0.127	1.00	1	03/02/2023 10:26	WG2015680
Carbon disulfide	U		0.0962	1.00	1	03/02/2023 10:26	WG2015680
Carbon tetrachloride	U		0.128	1.00	1	03/02/2023 10:26	WG2015680
Chlorobenzene	U		0.116	1.00	1	03/02/2023 10:26	WG2015680
Chlorodibromomethane	U		0.140	1.00	1	03/02/2023 10:26	WG2015680
Chloroethane	U		0.192	5.00	1	03/02/2023 10:26	WG2015680
Chloroform	U		0.111	5.00	1	03/02/2023 10:26	WG2015680
Chloromethane	U		0.960	2.50	1	03/02/2023 10:26	WG2015680
2-Chlorotoluene	U		0.106	1.00	1	03/02/2023 10:26	WG2015680
4-Chlorotoluene	U		0.114	1.00	1	03/02/2023 10:26	WG2015680
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/02/2023 10:26	WG2015680
1,2-Dibromoethane	U		0.126	1.00	1	03/02/2023 10:26	WG2015680
Dibromomethane	U		0.122	1.00	1	03/02/2023 10:26	WG2015680
1,2-Dichlorobenzene	U		0.107	1.00	1	03/02/2023 10:26	WG2015680
1,3-Dichlorobenzene	U		0.110	1.00	1	03/02/2023 10:26	WG2015680
1,4-Dichlorobenzene	U		0.120	1.00	1	03/02/2023 10:26	WG2015680
Dichlorodifluoromethane	U		0.374	5.00	1	03/02/2023 10:26	WG2015680
1,1-Dichloroethane	U		0.100	1.00	1	03/02/2023 10:26	WG2015680
1,2-Dichloroethane	U		0.0819	1.00	1	03/02/2023 10:26	WG2015680
1,1-Dichloroethene	U		0.188	1.00	1	03/02/2023 10:26	WG2015680
cis-1,2-Dichloroethene	U		0.126	1.00	1	03/02/2023 10:26	WG2015680
trans-1,2-Dichloroethene	U		0.149	1.00	1	03/02/2023 10:26	WG2015680
1,2-Dichloropropane	U		0.149	1.00	1	03/02/2023 10:26	WG2015680
1,1-Dichloropropene	U		0.142	1.00	1	03/02/2023 10:26	WG2015680
1,3-Dichloropropane	U		0.110	1.00	1	03/02/2023 10:26	WG2015680
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/02/2023 10:26	WG2015680
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/02/2023 10:26	WG2015680
2,2-Dichloropropane	U		0.161	1.00	1	03/02/2023 10:26	WG2015680
Di-isopropyl ether	U	J4	0.105	1.00	1	03/02/2023 10:26	WG2015680
Ethylbenzene	U		0.137	1.00	1	03/02/2023 10:26	WG2015680
Hexachloro-1,3-butadiene	U	C3	0.337	1.00	1	03/02/2023 10:26	WG2015680
Isopropylbenzene	U		0.105	1.00	1	03/02/2023 10:26	WG2015680
p-Isopropyltoluene	U		0.120	1.00	1	03/02/2023 10:26	WG2015680
2-Butanone (MEK)	U	J4	1.19	10.0	1	03/02/2023 10:26	WG2015680
Methylene Chloride	U		0.430	5.00	1	03/02/2023 10:26	WG2015680
4-Methyl-2-pentanone (MIBK)	U	J4	0.478	10.0	1	03/02/2023 10:26	WG2015680
Methyl tert-butyl ether	U		0.101	1.00	1	03/02/2023 10:26	WG2015680
Naphthalene	U	C3	1.00	5.00	1	03/02/2023 10:26	WG2015680
n-Propylbenzene	U		0.0993	1.00	1	03/02/2023 10:26	WG2015680
Styrene	U		0.118	1.00	1	03/02/2023 10:26	WG2015680
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/02/2023 10:26	WG2015680
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/02/2023 10:26	WG2015680
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/02/2023 10:26	WG2015680
Tetrachloroethene	U		0.300	1.00	1	03/02/2023 10:26	WG2015680
Toluene	U		0.278	1.00	1	03/02/2023 10:26	WG2015680
1,2,3-Trichlorobenzene	U	C3	0.230	1.00	1	03/02/2023 10:26	WG2015680

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,4-Trichlorobenzene	U	C3	0.481	1.00	1	03/02/2023 10:26	WG2015680
1,1,1-Trichloroethane	U		0.149	1.00	1	03/02/2023 10:26	WG2015680
1,1,2-Trichloroethane	U		0.158	1.00	1	03/02/2023 10:26	WG2015680
Trichloroethene	U		0.190	1.00	1	03/02/2023 10:26	WG2015680
Trichlorofluoromethane	U		0.160	5.00	1	03/02/2023 10:26	WG2015680
1,2,3-Trichloropropane	U		0.237	2.50	1	03/02/2023 10:26	WG2015680
1,2,4-Trimethylbenzene	U		0.322	1.00	1	03/02/2023 10:26	WG2015680
1,2,3-Trimethylbenzene	U		0.104	1.00	1	03/02/2023 10:26	WG2015680
1,3,5-Trimethylbenzene	U		0.104	1.00	1	03/02/2023 10:26	WG2015680
Vinyl chloride	U		0.234	1.00	1	03/02/2023 10:26	WG2015680
Xylenes, Total	U		0.174	3.00	1	03/02/2023 10:26	WG2015680
(S) Toluene-d8	*103*			*80.0-120*		*03/02/2023 10:26*	WG2015680
(S) Toluene-d8	*101*			*80.0-120*		*03/03/2023 23:48*	WG2016731
(S) 4-Bromofluorobenzene	*93.0*			*77.0-126*		*03/02/2023 10:26*	WG2015680
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*03/03/2023 23:48*	WG2016731
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*03/02/2023 10:26*	WG2015680
(S) 1,2-Dichloroethane-d4	*90.0*			*70.0-130*		*03/03/2023 23:48*	WG2016731

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U	J4	565	2500	50	03/02/2023 12:41	WG2015680
Acrolein	U		127	2500	50	03/08/2023 01:50	WG2018363
Acrylonitrile	U		33.6	500	50	03/02/2023 12:41	WG2015680
Benzene	U		4.71	50.0	50	03/02/2023 12:41	WG2015680
Bromobenzene	U		5.90	50.0	50	03/02/2023 12:41	WG2015680
Bromodichloromethane	U		6.80	50.0	50	03/02/2023 12:41	WG2015680
Bromoform	U		6.45	50.0	50	03/02/2023 12:41	WG2015680
Bromomethane	U		30.3	250	50	03/02/2023 12:41	WG2015680
n-Butylbenzene	U		7.85	50.0	50	03/02/2023 12:41	WG2015680
sec-Butylbenzene	U		6.25	50.0	50	03/02/2023 12:41	WG2015680
tert-Butylbenzene	U		6.35	50.0	50	03/02/2023 12:41	WG2015680
Carbon disulfide	U		4.81	50.0	50	03/02/2023 12:41	WG2015680
Carbon tetrachloride	U		6.40	50.0	50	03/02/2023 12:41	WG2015680
Chlorobenzene	U		5.80	50.0	50	03/02/2023 12:41	WG2015680
Chlorodibromomethane	U		7.00	50.0	50	03/02/2023 12:41	WG2015680
Chloroethane	U		9.60	250	50	03/02/2023 12:41	WG2015680
Chloroform	U		5.55	250	50	03/02/2023 12:41	WG2015680
Chloromethane	U		48.0	125	50	03/02/2023 12:41	WG2015680
2-Chlorotoluene	U		5.30	50.0	50	03/02/2023 12:41	WG2015680
4-Chlorotoluene	U		5.70	50.0	50	03/02/2023 12:41	WG2015680
1,2-Dibromo-3-Chloropropane	U		13.8	250	50	03/02/2023 12:41	WG2015680
1,2-Dibromoethane	U		6.30	50.0	50	03/02/2023 12:41	WG2015680
Dibromomethane	U		6.10	50.0	50	03/02/2023 12:41	WG2015680
1,2-Dichlorobenzene	U		5.35	50.0	50	03/02/2023 12:41	WG2015680
1,3-Dichlorobenzene	U		5.50	50.0	50	03/02/2023 12:41	WG2015680
1,4-Dichlorobenzene	U		6.00	50.0	50	03/02/2023 12:41	WG2015680
Dichlorodifluoromethane	U		18.7	250	50	03/02/2023 12:41	WG2015680
1,1-Dichloroethane	U		5.00	50.0	50	03/02/2023 12:41	WG2015680
1,2-Dichloroethane	U		4.09	50.0	50	03/02/2023 12:41	WG2015680
1,1-Dichloroethene	U		9.40	50.0	50	03/02/2023 12:41	WG2015680
cis-1,2-Dichloroethene	2770		6.30	50.0	50	03/02/2023 12:41	WG2015680
trans-1,2-Dichloroethene	28.7	J	7.45	50.0	50	03/02/2023 12:41	WG2015680
1,2-Dichloropropane	U		7.45	50.0	50	03/02/2023 12:41	WG2015680
1,1-Dichloropropene	U		7.10	50.0	50	03/02/2023 12:41	WG2015680
1,3-Dichloropropane	U		5.50	50.0	50	03/02/2023 12:41	WG2015680
cis-1,3-Dichloropropene	U		5.55	50.0	50	03/02/2023 12:41	WG2015680
trans-1,3-Dichloropropene	U		5.90	50.0	50	03/02/2023 12:41	WG2015680
2,2-Dichloropropane	U		8.05	50.0	50	03/02/2023 12:41	WG2015680
Di-isopropyl ether	U	J4	5.25	50.0	50	03/02/2023 12:41	WG2015680
Ethylbenzene	U		6.85	50.0	50	03/02/2023 12:41	WG2015680
Hexachloro-1,3-butadiene	U	C3	16.9	50.0	50	03/02/2023 12:41	WG2015680
Isopropylbenzene	U		5.25	50.0	50	03/02/2023 12:41	WG2015680
p-Isopropyltoluene	U		6.00	50.0	50	03/02/2023 12:41	WG2015680
2-Butanone (MEK)	U	J4	59.5	500	50	03/02/2023 12:41	WG2015680
Methylene Chloride	U		21.5	250	50	03/02/2023 12:41	WG2015680
4-Methyl-2-pentanone (MIBK)	U	J4	23.9	500	50	03/02/2023 12:41	WG2015680
Methyl tert-butyl ether	U		5.05	50.0	50	03/02/2023 12:41	WG2015680
Naphthalene	U	C3	50.0	250	50	03/02/2023 12:41	WG2015680
n-Propylbenzene	U		4.97	50.0	50	03/02/2023 12:41	WG2015680
Styrene	U		5.90	50.0	50	03/02/2023 12:41	WG2015680
1,1,1,2-Tetrachloroethane	U		7.35	50.0	50	03/02/2023 12:41	WG2015680
1,1,2,2-Tetrachloroethane	U		6.65	50.0	50	03/02/2023 12:41	WG2015680
1,1,2-Trichlorotrifluoroethane	U		9.00	50.0	50	03/02/2023 12:41	WG2015680
Tetrachloroethene	24.6	J	15.0	50.0	50	03/02/2023 12:41	WG2015680
Toluene	U		13.9	50.0	50	03/02/2023 12:41	WG2015680
1,2,3-Trichlorobenzene	U	C3	11.5	50.0	50	03/02/2023 12:41	WG2015680

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,4-Trichlorobenzene	U	C3	24.1	50.0	50	03/02/2023 12:41	WG2015680
1,1,1-Trichloroethane	U		7.45	50.0	50	03/02/2023 12:41	WG2015680
1,1,2-Trichloroethane	U		7.90	50.0	50	03/02/2023 12:41	WG2015680
Trichloroethene	U		9.50	50.0	50	03/02/2023 12:41	WG2015680
Trichlorofluoromethane	U		8.00	250	50	03/02/2023 12:41	WG2015680
1,2,3-Trichloropropane	U		11.9	125	50	03/02/2023 12:41	WG2015680
1,2,4-Trimethylbenzene	U		16.1	50.0	50	03/02/2023 12:41	WG2015680
1,2,3-Trimethylbenzene	U		5.20	50.0	50	03/02/2023 12:41	WG2015680
1,3,5-Trimethylbenzene	U		5.20	50.0	50	03/02/2023 12:41	WG2015680
Vinyl chloride	595		11.7	50.0	50	03/02/2023 12:41	WG2015680
Xylenes, Total	U		8.70	150	50	03/02/2023 12:41	WG2015680
(S) Toluene-d8	*102*			*80.0-120*		*03/02/2023 12:41*	WG2015680
(S) Toluene-d8	*96.9*			*80.0-120*		*03/08/2023 01:50*	WG2018363
(S) 4-Bromofluorobenzene	*87.0*			*77.0-126*		*03/02/2023 12:41*	WG2015680
(S) 4-Bromofluorobenzene	*89.3*			*77.0-126*		*03/08/2023 01:50*	WG2018363
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*03/02/2023 12:41*	WG2015680
(S) 1,2-Dichloroethane-d4	*92.9*			*70.0-130*		*03/08/2023 01:50*	WG2018363

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	J4	11.3	50.0	1	03/02/2023 10:45	WG2015680
Acrolein	U	C3	2.54	50.0	1	03/04/2023 00:08	WG2016731
Acrylonitrile	U		0.671	10.0	1	03/02/2023 10:45	WG2015680
Benzene	U		0.0941	1.00	1	03/02/2023 10:45	WG2015680
Bromobenzene	U		0.118	1.00	1	03/02/2023 10:45	WG2015680
Bromodichloromethane	U		0.136	1.00	1	03/02/2023 10:45	WG2015680
Bromoform	U		0.129	1.00	1	03/02/2023 10:45	WG2015680
Bromomethane	U		0.605	5.00	1	03/02/2023 10:45	WG2015680
n-Butylbenzene	U		0.157	1.00	1	03/02/2023 10:45	WG2015680
sec-Butylbenzene	U		0.125	1.00	1	03/02/2023 10:45	WG2015680
tert-Butylbenzene	U		0.127	1.00	1	03/02/2023 10:45	WG2015680
Carbon disulfide	U		0.0962	1.00	1	03/02/2023 10:45	WG2015680
Carbon tetrachloride	U		0.128	1.00	1	03/02/2023 10:45	WG2015680
Chlorobenzene	U		0.116	1.00	1	03/02/2023 10:45	WG2015680
Chlorodibromomethane	U		0.140	1.00	1	03/02/2023 10:45	WG2015680
Chloroethane	U		0.192	5.00	1	03/02/2023 10:45	WG2015680
Chloroform	U		0.111	5.00	1	03/02/2023 10:45	WG2015680
Chloromethane	U		0.960	2.50	1	03/02/2023 10:45	WG2015680
2-Chlorotoluene	U		0.106	1.00	1	03/02/2023 10:45	WG2015680
4-Chlorotoluene	U		0.114	1.00	1	03/02/2023 10:45	WG2015680
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/02/2023 10:45	WG2015680
1,2-Dibromoethane	U		0.126	1.00	1	03/02/2023 10:45	WG2015680
Dibromomethane	U		0.122	1.00	1	03/02/2023 10:45	WG2015680
1,2-Dichlorobenzene	U		0.107	1.00	1	03/02/2023 10:45	WG2015680
1,3-Dichlorobenzene	U		0.110	1.00	1	03/02/2023 10:45	WG2015680
1,4-Dichlorobenzene	U		0.120	1.00	1	03/02/2023 10:45	WG2015680
Dichlorodifluoromethane	U		0.374	5.00	1	03/02/2023 10:45	WG2015680
1,1-Dichloroethane	U		0.100	1.00	1	03/02/2023 10:45	WG2015680
1,2-Dichloroethane	U		0.0819	1.00	1	03/02/2023 10:45	WG2015680
1,1-Dichloroethene	U		0.188	1.00	1	03/02/2023 10:45	WG2015680
cis-1,2-Dichloroethene	U		0.126	1.00	1	03/02/2023 10:45	WG2015680
trans-1,2-Dichloroethene	U		0.149	1.00	1	03/02/2023 10:45	WG2015680
1,2-Dichloropropane	U		0.149	1.00	1	03/02/2023 10:45	WG2015680
1,1-Dichloropropene	U		0.142	1.00	1	03/02/2023 10:45	WG2015680
1,3-Dichloropropane	U		0.110	1.00	1	03/02/2023 10:45	WG2015680
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/02/2023 10:45	WG2015680
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/02/2023 10:45	WG2015680
2,2-Dichloropropane	U		0.161	1.00	1	03/02/2023 10:45	WG2015680
Di-isopropyl ether	U	J4	0.105	1.00	1	03/02/2023 10:45	WG2015680
Ethylbenzene	U		0.137	1.00	1	03/02/2023 10:45	WG2015680
Hexachloro-1,3-butadiene	U	C3	0.337	1.00	1	03/02/2023 10:45	WG2015680
Isopropylbenzene	U		0.105	1.00	1	03/02/2023 10:45	WG2015680
p-Isopropyltoluene	U		0.120	1.00	1	03/02/2023 10:45	WG2015680
2-Butanone (MEK)	U	J4	1.19	10.0	1	03/02/2023 10:45	WG2015680
Methylene Chloride	U		0.430	5.00	1	03/02/2023 10:45	WG2015680
4-Methyl-2-pentanone (MIBK)	U	J4	0.478	10.0	1	03/02/2023 10:45	WG2015680
Methyl tert-butyl ether	U		0.101	1.00	1	03/02/2023 10:45	WG2015680
Naphthalene	U	C3	1.00	5.00	1	03/02/2023 10:45	WG2015680
n-Propylbenzene	U		0.0993	1.00	1	03/02/2023 10:45	WG2015680
Styrene	U		0.118	1.00	1	03/02/2023 10:45	WG2015680
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/02/2023 10:45	WG2015680
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/02/2023 10:45	WG2015680
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/02/2023 10:45	WG2015680
Tetrachloroethene	U		0.300	1.00	1	03/02/2023 10:45	WG2015680
Toluene	U		0.278	1.00	1	03/02/2023 10:45	WG2015680
1,2,3-Trichlorobenzene	U	C3	0.230	1.00	1	03/02/2023 10:45	WG2015680

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,4-Trichlorobenzene	U	C3	0.481	1.00	1	03/02/2023 10:45	WG2015680
1,1,1-Trichloroethane	U		0.149	1.00	1	03/02/2023 10:45	WG2015680
1,1,2-Trichloroethane	U		0.158	1.00	1	03/02/2023 10:45	WG2015680
Trichloroethene	U		0.190	1.00	1	03/02/2023 10:45	WG2015680
Trichlorofluoromethane	U		0.160	5.00	1	03/02/2023 10:45	WG2015680
1,2,3-Trichloropropane	U		0.237	2.50	1	03/02/2023 10:45	WG2015680
1,2,4-Trimethylbenzene	U		0.322	1.00	1	03/02/2023 10:45	WG2015680
1,2,3-Trimethylbenzene	U		0.104	1.00	1	03/02/2023 10:45	WG2015680
1,3,5-Trimethylbenzene	U		0.104	1.00	1	03/02/2023 10:45	WG2015680
Vinyl chloride	U		0.234	1.00	1	03/02/2023 10:45	WG2015680
Xylenes, Total	U		0.174	3.00	1	03/02/2023 10:45	WG2015680
(S) Toluene-d8	*103*			*80.0-120*		*03/02/2023 10:45*	WG2015680
(S) Toluene-d8	*99.9*			*80.0-120*		*03/04/2023 00:08*	WG2016731
(S) 4-Bromofluorobenzene	*90.3*			*77.0-126*		*03/02/2023 10:45*	WG2015680
(S) 4-Bromofluorobenzene	*108*			*77.0-126*		*03/04/2023 00:08*	WG2016731
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*03/02/2023 10:45*	WG2015680
(S) 1,2-Dichloroethane-d4	*91.5*			*70.0-130*		*03/04/2023 00:08*	WG2016731

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	12.2	J	11.3	50.0	1	03/04/2023 00:27	WG2016731
Acrolein	U	C3	2.54	50.0	1	03/04/2023 00:27	WG2016731
Acrylonitrile	U		0.671	10.0	1	03/04/2023 00:27	WG2016731
Benzene	U		0.0941	1.00	1	03/04/2023 00:27	WG2016731
Bromobenzene	U		0.118	1.00	1	03/04/2023 00:27	WG2016731
Bromodichloromethane	U		0.136	1.00	1	03/04/2023 00:27	WG2016731
Bromoform	U		0.129	1.00	1	03/04/2023 00:27	WG2016731
Bromomethane	U		0.605	5.00	1	03/04/2023 00:27	WG2016731
n-Butylbenzene	U		0.157	1.00	1	03/04/2023 00:27	WG2016731
sec-Butylbenzene	U		0.125	1.00	1	03/04/2023 00:27	WG2016731
tert-Butylbenzene	U		0.127	1.00	1	03/04/2023 00:27	WG2016731
Carbon disulfide	U		0.0962	1.00	1	03/04/2023 00:27	WG2016731
Carbon tetrachloride	U		0.128	1.00	1	03/04/2023 00:27	WG2016731
Chlorobenzene	U		0.116	1.00	1	03/04/2023 00:27	WG2016731
Chlorodibromomethane	U		0.140	1.00	1	03/04/2023 00:27	WG2016731
Chloroethane	U		0.192	5.00	1	03/04/2023 00:27	WG2016731
Chloroform	U		0.111	5.00	1	03/04/2023 00:27	WG2016731
Chloromethane	U		0.960	2.50	1	03/04/2023 00:27	WG2016731
2-Chlorotoluene	U		0.106	1.00	1	03/04/2023 00:27	WG2016731
4-Chlorotoluene	U		0.114	1.00	1	03/04/2023 00:27	WG2016731
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/04/2023 00:27	WG2016731
1,2-Dibromoethane	U		0.126	1.00	1	03/04/2023 00:27	WG2016731
Dibromomethane	U		0.122	1.00	1	03/04/2023 00:27	WG2016731
1,2-Dichlorobenzene	U		0.107	1.00	1	03/04/2023 00:27	WG2016731
1,3-Dichlorobenzene	U		0.110	1.00	1	03/04/2023 00:27	WG2016731
1,4-Dichlorobenzene	U		0.120	1.00	1	03/04/2023 00:27	WG2016731
Dichlorodifluoromethane	U		0.374	5.00	1	03/04/2023 00:27	WG2016731
1,1-Dichloroethane	U		0.100	1.00	1	03/04/2023 00:27	WG2016731
1,2-Dichloroethane	U		0.0819	1.00	1	03/04/2023 00:27	WG2016731
1,1-Dichloroethene	U		0.188	1.00	1	03/04/2023 00:27	WG2016731
cis-1,2-Dichloroethene	18.8		0.126	1.00	1	03/04/2023 00:27	WG2016731
trans-1,2-Dichloroethene	0.554	J	0.149	1.00	1	03/04/2023 00:27	WG2016731
1,2-Dichloropropane	U		0.149	1.00	1	03/04/2023 00:27	WG2016731
1,1-Dichloropropene	U		0.142	1.00	1	03/04/2023 00:27	WG2016731
1,3-Dichloropropane	U		0.110	1.00	1	03/04/2023 00:27	WG2016731
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/04/2023 00:27	WG2016731
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/04/2023 00:27	WG2016731
2,2-Dichloropropane	U		0.161	1.00	1	03/04/2023 00:27	WG2016731
Di-isopropyl ether	U		0.105	1.00	1	03/04/2023 00:27	WG2016731
Ethylbenzene	U		0.137	1.00	1	03/04/2023 00:27	WG2016731
Hexachloro-1,3-butadiene	U		0.337	1.00	1	03/04/2023 00:27	WG2016731
Isopropylbenzene	U		0.105	1.00	1	03/04/2023 00:27	WG2016731
p-Isopropyltoluene	U		0.120	1.00	1	03/04/2023 00:27	WG2016731
2-Butanone (MEK)	U		1.19	10.0	1	03/04/2023 00:27	WG2016731
Methylene Chloride	U		0.430	5.00	1	03/04/2023 00:27	WG2016731
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	03/04/2023 00:27	WG2016731
Methyl tert-butyl ether	U		0.101	1.00	1	03/04/2023 00:27	WG2016731
Naphthalene	U		1.00	5.00	1	03/04/2023 00:27	WG2016731
n-Propylbenzene	U		0.0993	1.00	1	03/04/2023 00:27	WG2016731
Styrene	U		0.118	1.00	1	03/04/2023 00:27	WG2016731
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/04/2023 00:27	WG2016731
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/04/2023 00:27	WG2016731
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/04/2023 00:27	WG2016731
Tetrachloroethene	U		0.300	1.00	1	03/04/2023 00:27	WG2016731
Toluene	U		0.278	1.00	1	03/04/2023 00:27	WG2016731
1,2,3-Trichlorobenzene	U		0.230	1.00	1	03/04/2023 00:27	WG2016731

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,4-Trichlorobenzene	U		0.481	1.00	1	03/04/2023 00:27	WG2016731
1,1,1-Trichloroethane	U		0.149	1.00	1	03/04/2023 00:27	WG2016731
1,1,2-Trichloroethane	U		0.158	1.00	1	03/04/2023 00:27	WG2016731
Trichloroethene	U		0.190	1.00	1	03/04/2023 00:27	WG2016731
Trichlorofluoromethane	U		0.160	5.00	1	03/04/2023 00:27	WG2016731
1,2,3-Trichloropropane	U	C3	0.237	2.50	1	03/04/2023 00:27	WG2016731
1,2,4-Trimethylbenzene	U		0.322	1.00	1	03/04/2023 00:27	WG2016731
1,2,3-Trimethylbenzene	0.128	J	0.104	1.00	1	03/04/2023 00:27	WG2016731
1,3,5-Trimethylbenzene	U		0.104	1.00	1	03/04/2023 00:27	WG2016731
Vinyl chloride	25.3		0.234	1.00	1	03/04/2023 00:27	WG2016731
Xylenes, Total	U		0.174	3.00	1	03/04/2023 00:27	WG2016731
(S) Toluene-d8	*103*			*80.0-120*		*03/04/2023 00:27*	WG2016731
(S) 4-Bromofluorobenzene	*109*			*77.0-126*		*03/04/2023 00:27*	WG2016731
(S) 1,2-Dichloroethane-d4	*90.3*			*70.0-130*		*03/04/2023 00:27*	WG2016731

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	J4	113000	500000	10000	03/02/2023 13:19	WG2015680
Acrolein	U		25400	500000	10000	03/08/2023 02:12	WG2018363
Acrylonitrile	U		6710	100000	10000	03/02/2023 13:19	WG2015680
Benzene	U		941	10000	10000	03/02/2023 13:19	WG2015680
Bromobenzene	U		1180	10000	10000	03/02/2023 13:19	WG2015680
Bromodichloromethane	U		1360	10000	10000	03/02/2023 13:19	WG2015680
Bromoform	U		1290	10000	10000	03/02/2023 13:19	WG2015680
Bromomethane	U		6050	50000	10000	03/02/2023 13:19	WG2015680
n-Butylbenzene	U		1570	10000	10000	03/02/2023 13:19	WG2015680
sec-Butylbenzene	U		1250	10000	10000	03/02/2023 13:19	WG2015680
tert-Butylbenzene	U		1270	10000	10000	03/02/2023 13:19	WG2015680
Carbon disulfide	U		962	10000	10000	03/02/2023 13:19	WG2015680
Carbon tetrachloride	U		1280	10000	10000	03/02/2023 13:19	WG2015680
Chlorobenzene	U		1160	10000	10000	03/02/2023 13:19	WG2015680
Chlorodibromomethane	U		1400	10000	10000	03/02/2023 13:19	WG2015680
Chloroethane	U		1920	50000	10000	03/02/2023 13:19	WG2015680
Chloroform	U		1110	50000	10000	03/02/2023 13:19	WG2015680
Chloromethane	U		9600	25000	10000	03/02/2023 13:19	WG2015680
2-Chlorotoluene	U		1060	10000	10000	03/02/2023 13:19	WG2015680
4-Chlorotoluene	U		1140	10000	10000	03/02/2023 13:19	WG2015680
1,2-Dibromo-3-Chloropropane	U		2760	50000	10000	03/02/2023 13:19	WG2015680
1,2-Dibromoethane	U		1260	10000	10000	03/02/2023 13:19	WG2015680
Dibromomethane	U		1220	10000	10000	03/02/2023 13:19	WG2015680
1,2-Dichlorobenzene	U		1070	10000	10000	03/02/2023 13:19	WG2015680
1,3-Dichlorobenzene	U		1100	10000	10000	03/02/2023 13:19	WG2015680
1,4-Dichlorobenzene	U		1200	10000	10000	03/02/2023 13:19	WG2015680
Dichlorodifluoromethane	U		3740	50000	10000	03/02/2023 13:19	WG2015680
1,1-Dichloroethane	U		1000	10000	10000	03/02/2023 13:19	WG2015680
1,2-Dichloroethane	U		819	10000	10000	03/02/2023 13:19	WG2015680
1,1-Dichloroethene	U		1880	10000	10000	03/02/2023 13:19	WG2015680
cis-1,2-Dichloroethene	593000		1260	10000	10000	03/02/2023 13:19	WG2015680
trans-1,2-Dichloroethene	2430	J	1490	10000	10000	03/02/2023 13:19	WG2015680
1,2-Dichloropropane	U		1490	10000	10000	03/02/2023 13:19	WG2015680
1,1-Dichloropropene	U		1420	10000	10000	03/02/2023 13:19	WG2015680
1,3-Dichloropropane	U		1100	10000	10000	03/02/2023 13:19	WG2015680
cis-1,3-Dichloropropene	U		1110	10000	10000	03/02/2023 13:19	WG2015680
trans-1,3-Dichloropropene	U		1180	10000	10000	03/02/2023 13:19	WG2015680
2,2-Dichloropropane	U		1610	10000	10000	03/02/2023 13:19	WG2015680
Di-isopropyl ether	U	J4	1050	10000	10000	03/02/2023 13:19	WG2015680
Ethylbenzene	U		1370	10000	10000	03/02/2023 13:19	WG2015680
Hexachloro-1,3-butadiene	U	C3	3370	10000	10000	03/02/2023 13:19	WG2015680
Isopropylbenzene	U		1050	10000	10000	03/02/2023 13:19	WG2015680
p-Isopropyltoluene	U		1200	10000	10000	03/02/2023 13:19	WG2015680
2-Butanone (MEK)	U	J4	11900	100000	10000	03/02/2023 13:19	WG2015680
Methylene Chloride	U		4300	50000	10000	03/02/2023 13:19	WG2015680
4-Methyl-2-pentanone (MIBK)	U	J4	4780	100000	10000	03/02/2023 13:19	WG2015680
Methyl tert-butyl ether	U		1010	10000	10000	03/02/2023 13:19	WG2015680
Naphthalene	U	C3	10000	50000	10000	03/02/2023 13:19	WG2015680
n-Propylbenzene	U		993	10000	10000	03/02/2023 13:19	WG2015680
Styrene	U		1180	10000	10000	03/02/2023 13:19	WG2015680
1,1,1,2-Tetrachloroethane	U		1470	10000	10000	03/02/2023 13:19	WG2015680
1,1,2,2-Tetrachloroethane	U		1330	10000	10000	03/02/2023 13:19	WG2015680
1,1,2-Trichlorotrifluoroethane	U		1800	10000	10000	03/02/2023 13:19	WG2015680
Tetrachloroethene	5490	J	3000	10000	10000	03/02/2023 13:19	WG2015680
Toluene	U		2780	10000	10000	03/02/2023 13:19	WG2015680
1,2,3-Trichlorobenzene	U	C3	2300	10000	10000	03/02/2023 13:19	WG2015680

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,4-Trichlorobenzene	U	C3	4810	10000	10000	03/02/2023 13:19	WG2015680
1,1,1-Trichloroethane	U		1490	10000	10000	03/02/2023 13:19	WG2015680
1,1,2-Trichloroethane	U		1580	10000	10000	03/02/2023 13:19	WG2015680
Trichloroethene	U		1900	10000	10000	03/02/2023 13:19	WG2015680
Trichlorofluoromethane	U		1600	50000	10000	03/02/2023 13:19	WG2015680
1,2,3-Trichloropropane	U		2370	25000	10000	03/02/2023 13:19	WG2015680
1,2,4-Trimethylbenzene	U		3220	10000	10000	03/02/2023 13:19	WG2015680
1,2,3-Trimethylbenzene	U		1040	10000	10000	03/02/2023 13:19	WG2015680
1,3,5-Trimethylbenzene	U		1040	10000	10000	03/02/2023 13:19	WG2015680
Vinyl chloride	49700		2340	10000	10000	03/02/2023 13:19	WG2015680
Xylenes, Total	U		1740	30000	10000	03/02/2023 13:19	WG2015680
(S) Toluene-d8	*104*			*80.0-120*		*03/02/2023 13:19*	WG2015680
(S) Toluene-d8	*101*			*80.0-120*		*03/08/2023 02:12*	WG2018363
(S) 4-Bromofluorobenzene	*90.6*			*77.0-126*		*03/02/2023 13:19*	WG2015680
(S) 4-Bromofluorobenzene	*92.9*			*77.0-126*		*03/08/2023 02:12*	WG2018363
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*03/02/2023 13:19*	WG2015680
(S) 1,2-Dichloroethane-d4	*92.8*			*70.0-130*		*03/08/2023 02:12*	WG2018363

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	J4	1130	5000	100	03/02/2023 13:38	WG2015680
Acrolein	U		254	5000	100	03/08/2023 02:33	WG2018363
Acrylonitrile	U		67.1	1000	100	03/02/2023 13:38	WG2015680
Benzene	U		9.41	100	100	03/02/2023 13:38	WG2015680
Bromobenzene	U		11.8	100	100	03/02/2023 13:38	WG2015680
Bromodichloromethane	U		13.6	100	100	03/02/2023 13:38	WG2015680
Bromoform	U		12.9	100	100	03/02/2023 13:38	WG2015680
Bromomethane	U		60.5	500	100	03/02/2023 13:38	WG2015680
n-Butylbenzene	U		15.7	100	100	03/02/2023 13:38	WG2015680
sec-Butylbenzene	U		12.5	100	100	03/02/2023 13:38	WG2015680
tert-Butylbenzene	U		12.7	100	100	03/02/2023 13:38	WG2015680
Carbon disulfide	U		9.62	100	100	03/02/2023 13:38	WG2015680
Carbon tetrachloride	U		12.8	100	100	03/02/2023 13:38	WG2015680
Chlorobenzene	U		11.6	100	100	03/02/2023 13:38	WG2015680
Chlorodibromomethane	U		14.0	100	100	03/02/2023 13:38	WG2015680
Chloroethane	U		19.2	500	100	03/02/2023 13:38	WG2015680
Chloroform	U		11.1	500	100	03/02/2023 13:38	WG2015680
Chloromethane	U		96.0	250	100	03/02/2023 13:38	WG2015680
2-Chlorotoluene	U		10.6	100	100	03/02/2023 13:38	WG2015680
4-Chlorotoluene	U		11.4	100	100	03/02/2023 13:38	WG2015680
1,2-Dibromo-3-Chloropropane	U		27.6	500	100	03/02/2023 13:38	WG2015680
1,2-Dibromoethane	U		12.6	100	100	03/02/2023 13:38	WG2015680
Dibromomethane	U		12.2	100	100	03/02/2023 13:38	WG2015680
1,2-Dichlorobenzene	U		10.7	100	100	03/02/2023 13:38	WG2015680
1,3-Dichlorobenzene	U		11.0	100	100	03/02/2023 13:38	WG2015680
1,4-Dichlorobenzene	U		12.0	100	100	03/02/2023 13:38	WG2015680
Dichlorodifluoromethane	U		37.4	500	100	03/02/2023 13:38	WG2015680
1,1-Dichloroethane	U		10.0	100	100	03/02/2023 13:38	WG2015680
1,2-Dichloroethane	U		8.19	100	100	03/02/2023 13:38	WG2015680
1,1-Dichloroethene	U		18.8	100	100	03/02/2023 13:38	WG2015680
cis-1,2-Dichloroethene	5430		12.6	100	100	03/02/2023 13:38	WG2015680
trans-1,2-Dichloroethene	84.9	J	14.9	100	100	03/02/2023 13:38	WG2015680
1,2-Dichloropropane	U		14.9	100	100	03/02/2023 13:38	WG2015680
1,1-Dichloropropene	U		14.2	100	100	03/02/2023 13:38	WG2015680
1,3-Dichloropropane	U		11.0	100	100	03/02/2023 13:38	WG2015680
cis-1,3-Dichloropropene	U		11.1	100	100	03/02/2023 13:38	WG2015680
trans-1,3-Dichloropropene	U		11.8	100	100	03/02/2023 13:38	WG2015680
2,2-Dichloropropane	U		16.1	100	100	03/02/2023 13:38	WG2015680
Di-isopropyl ether	U	J4	10.5	100	100	03/02/2023 13:38	WG2015680
Ethylbenzene	U		13.7	100	100	03/02/2023 13:38	WG2015680
Hexachloro-1,3-butadiene	U	C3	33.7	100	100	03/02/2023 13:38	WG2015680
Isopropylbenzene	U		10.5	100	100	03/02/2023 13:38	WG2015680
p-Isopropyltoluene	U		12.0	100	100	03/02/2023 13:38	WG2015680
2-Butanone (MEK)	U	J4	119	1000	100	03/02/2023 13:38	WG2015680
Methylene Chloride	U		43.0	500	100	03/02/2023 13:38	WG2015680
4-Methyl-2-pentanone (MIBK)	U	J4	47.8	1000	100	03/02/2023 13:38	WG2015680
Methyl tert-butyl ether	U		10.1	100	100	03/02/2023 13:38	WG2015680
Naphthalene	U	C3	100	500	100	03/02/2023 13:38	WG2015680
n-Propylbenzene	U		9.93	100	100	03/02/2023 13:38	WG2015680
Styrene	U		11.8	100	100	03/02/2023 13:38	WG2015680
1,1,1,2-Tetrachloroethane	U		14.7	100	100	03/02/2023 13:38	WG2015680
1,1,2,2-Tetrachloroethane	U		13.3	100	100	03/02/2023 13:38	WG2015680
1,1,2-Trichlorotrifluoroethane	U		18.0	100	100	03/02/2023 13:38	WG2015680
Tetrachloroethene	1520		30.0	100	100	03/02/2023 13:38	WG2015680
Toluene	U		27.8	100	100	03/02/2023 13:38	WG2015680
1,2,3-Trichlorobenzene	U	C3	23.0	100	100	03/02/2023 13:38	WG2015680

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,4-Trichlorobenzene	U	C3	48.1	100	100	03/02/2023 13:38	WG2015680
1,1,1-Trichloroethane	U		14.9	100	100	03/02/2023 13:38	WG2015680
1,1,2-Trichloroethane	U		15.8	100	100	03/02/2023 13:38	WG2015680
Trichloroethene	817		19.0	100	100	03/02/2023 13:38	WG2015680
Trichlorofluoromethane	U		16.0	500	100	03/02/2023 13:38	WG2015680
1,2,3-Trichloropropane	U		23.7	250	100	03/02/2023 13:38	WG2015680
1,2,4-Trimethylbenzene	U		32.2	100	100	03/02/2023 13:38	WG2015680
1,2,3-Trimethylbenzene	U		10.4	100	100	03/02/2023 13:38	WG2015680
1,3,5-Trimethylbenzene	U		10.4	100	100	03/02/2023 13:38	WG2015680
Vinyl chloride	3140		23.4	100	100	03/02/2023 13:38	WG2015680
Xylenes, Total	U		17.4	300	100	03/02/2023 13:38	WG2015680
(S) Toluene-d8	*105*			*80.0-120*		*03/02/2023 13:38*	WG2015680
(S) Toluene-d8	*95.8*			*80.0-120*		*03/08/2023 02:33*	WG2018363
(S) 4-Bromofluorobenzene	*87.9*			*77.0-126*		*03/02/2023 13:38*	WG2015680
(S) 4-Bromofluorobenzene	*89.1*			*77.0-126*		*03/08/2023 02:33*	WG2018363
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*03/02/2023 13:38*	WG2015680
(S) 1,2-Dichloroethane-d4	*95.8*			*70.0-130*		*03/08/2023 02:33*	WG2018363

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methane	11700		29.1	100	10	03/05/2023 13:22	WG2017295
Ethane	48.0		4.07	13.0	1	03/04/2023 11:02	WG2016715
Ethene	7060		4.26	13.0	1	03/04/2023 11:02	WG2016715

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U	J4	22600	100000	2000	03/02/2023 13:57	WG2015680
Acrolein	U		5080	100000	2000	03/08/2023 02:55	WG2018363
Acrylonitrile	U		1340	20000	2000	03/02/2023 13:57	WG2015680
Benzene	U		188	2000	2000	03/02/2023 13:57	WG2015680
Bromobenzene	U		236	2000	2000	03/02/2023 13:57	WG2015680
Bromodichloromethane	U		272	2000	2000	03/02/2023 13:57	WG2015680
Bromoform	U		258	2000	2000	03/02/2023 13:57	WG2015680
Bromomethane	U		1210	10000	2000	03/02/2023 13:57	WG2015680
n-Butylbenzene	U		314	2000	2000	03/02/2023 13:57	WG2015680
sec-Butylbenzene	U		250	2000	2000	03/02/2023 13:57	WG2015680
tert-Butylbenzene	U		254	2000	2000	03/02/2023 13:57	WG2015680
Carbon disulfide	U		192	2000	2000	03/02/2023 13:57	WG2015680
Carbon tetrachloride	U		256	2000	2000	03/02/2023 13:57	WG2015680
Chlorobenzene	U		232	2000	2000	03/02/2023 13:57	WG2015680
Chlorodibromomethane	U		280	2000	2000	03/02/2023 13:57	WG2015680
Chloroethane	U		384	10000	2000	03/02/2023 13:57	WG2015680
Chloroform	U		222	10000	2000	03/02/2023 13:57	WG2015680
Chloromethane	U		1920	5000	2000	03/02/2023 13:57	WG2015680
2-Chlorotoluene	U		212	2000	2000	03/02/2023 13:57	WG2015680
4-Chlorotoluene	U		228	2000	2000	03/02/2023 13:57	WG2015680
1,2-Dibromo-3-Chloropropane	U		552	10000	2000	03/02/2023 13:57	WG2015680
1,2-Dibromoethane	U		252	2000	2000	03/02/2023 13:57	WG2015680
Dibromomethane	U		244	2000	2000	03/02/2023 13:57	WG2015680
1,2-Dichlorobenzene	U		214	2000	2000	03/02/2023 13:57	WG2015680
1,3-Dichlorobenzene	U		220	2000	2000	03/02/2023 13:57	WG2015680
1,4-Dichlorobenzene	U		240	2000	2000	03/02/2023 13:57	WG2015680
Dichlorodifluoromethane	U		748	10000	2000	03/02/2023 13:57	WG2015680
1,1-Dichloroethane	U		200	2000	2000	03/02/2023 13:57	WG2015680
1,2-Dichloroethane	U		164	2000	2000	03/02/2023 13:57	WG2015680
1,1-Dichloroethene	U		376	2000	2000	03/02/2023 13:57	WG2015680
cis-1,2-Dichloroethene	148000		252	2000	2000	03/02/2023 13:57	WG2015680
trans-1,2-Dichloroethene	1570	J	298	2000	2000	03/02/2023 13:57	WG2015680
1,2-Dichloropropane	U		298	2000	2000	03/02/2023 13:57	WG2015680
1,1-Dichloropropene	U		284	2000	2000	03/02/2023 13:57	WG2015680
1,3-Dichloropropane	U		220	2000	2000	03/02/2023 13:57	WG2015680
cis-1,3-Dichloropropene	U		222	2000	2000	03/02/2023 13:57	WG2015680
trans-1,3-Dichloropropene	U		236	2000	2000	03/02/2023 13:57	WG2015680
2,2-Dichloropropane	U		322	2000	2000	03/02/2023 13:57	WG2015680
Di-isopropyl ether	U	J4	210	2000	2000	03/02/2023 13:57	WG2015680
Ethylbenzene	U		274	2000	2000	03/02/2023 13:57	WG2015680
Hexachloro-1,3-butadiene	U	C3	674	2000	2000	03/02/2023 13:57	WG2015680
Isopropylbenzene	U		210	2000	2000	03/02/2023 13:57	WG2015680
p-Isopropyltoluene	U		240	2000	2000	03/02/2023 13:57	WG2015680
2-Butanone (MEK)	U	J4	2380	20000	2000	03/02/2023 13:57	WG2015680
Methylene Chloride	U		860	10000	2000	03/02/2023 13:57	WG2015680
4-Methyl-2-pentanone (MIBK)	U	J4	956	20000	2000	03/02/2023 13:57	WG2015680
Methyl tert-butyl ether	U		202	2000	2000	03/02/2023 13:57	WG2015680
Naphthalene	U	C3	2000	10000	2000	03/02/2023 13:57	WG2015680

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
n-Propylbenzene	U		199	2000	2000	03/02/2023 13:57	WG2015680
Styrene	U		236	2000	2000	03/02/2023 13:57	WG2015680
1,1,1,2-Tetrachloroethane	U		294	2000	2000	03/02/2023 13:57	WG2015680
1,1,2,2-Tetrachloroethane	U		266	2000	2000	03/02/2023 13:57	WG2015680
1,1,2-Trichlorotrifluoroethane	2620		360	2000	2000	03/02/2023 13:57	WG2015680
Tetrachloroethene	U		600	2000	2000	03/02/2023 13:57	WG2015680
Toluene	U		556	2000	2000	03/02/2023 13:57	WG2015680
1,2,3-Trichlorobenzene	U	C3	460	2000	2000	03/02/2023 13:57	WG2015680
1,2,4-Trichlorobenzene	U	C3	962	2000	2000	03/02/2023 13:57	WG2015680
1,1,1-Trichloroethane	U		298	2000	2000	03/02/2023 13:57	WG2015680
1,1,2-Trichloroethane	U		316	2000	2000	03/02/2023 13:57	WG2015680
Trichloroethene	U		380	2000	2000	03/02/2023 13:57	WG2015680
Trichlorofluoromethane	U		320	10000	2000	03/02/2023 13:57	WG2015680
1,2,3-Trichloropropane	U		474	5000	2000	03/02/2023 13:57	WG2015680
1,2,4-Trimethylbenzene	U		644	2000	2000	03/02/2023 13:57	WG2015680
1,2,3-Trimethylbenzene	U		208	2000	2000	03/02/2023 13:57	WG2015680
1,3,5-Trimethylbenzene	U		208	2000	2000	03/02/2023 13:57	WG2015680
Vinyl chloride	U		468	2000	2000	03/02/2023 13:57	WG2015680
Xylenes, Total	U		348	6000	2000	03/02/2023 13:57	WG2015680
(S) Toluene-d8	*104*			*80.0-120*		*03/02/2023 13:57*	WG2015680
(S) Toluene-d8	*98.3*			*80.0-120*		*03/08/2023 02:55*	WG2018363
(S) 4-Bromofluorobenzene	*89.0*			*77.0-126*		*03/02/2023 13:57*	WG2015680
(S) 4-Bromofluorobenzene	*86.3*			*77.0-126*		*03/08/2023 02:55*	WG2018363
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*03/02/2023 13:57*	WG2015680
(S) 1,2-Dichloroethane-d4	*96.3*			*70.0-130*		*03/08/2023 02:55*	WG2018363

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	J4	22600	100000	2000	03/02/2023 14:16	WG2015680
Acrolein	U		5080	100000	2000	03/08/2023 03:17	WG2018363
Acrylonitrile	U		1340	20000	2000	03/02/2023 14:16	WG2015680
Benzene	U		188	2000	2000	03/02/2023 14:16	WG2015680
Bromobenzene	U		236	2000	2000	03/02/2023 14:16	WG2015680
Bromodichloromethane	U		272	2000	2000	03/02/2023 14:16	WG2015680
Bromoform	U		258	2000	2000	03/02/2023 14:16	WG2015680
Bromomethane	U		1210	10000	2000	03/02/2023 14:16	WG2015680
n-Butylbenzene	U		314	2000	2000	03/02/2023 14:16	WG2015680
sec-Butylbenzene	U		250	2000	2000	03/02/2023 14:16	WG2015680
tert-Butylbenzene	U		254	2000	2000	03/02/2023 14:16	WG2015680
Carbon disulfide	U		192	2000	2000	03/02/2023 14:16	WG2015680
Carbon tetrachloride	U		256	2000	2000	03/02/2023 14:16	WG2015680
Chlorobenzene	U		232	2000	2000	03/02/2023 14:16	WG2015680
Chlorodibromomethane	U		280	2000	2000	03/02/2023 14:16	WG2015680
Chloroethane	U		384	10000	2000	03/02/2023 14:16	WG2015680
Chloroform	U		222	10000	2000	03/02/2023 14:16	WG2015680
Chloromethane	U		1920	5000	2000	03/02/2023 14:16	WG2015680
2-Chlorotoluene	U		212	2000	2000	03/02/2023 14:16	WG2015680
4-Chlorotoluene	U		228	2000	2000	03/02/2023 14:16	WG2015680
1,2-Dibromo-3-Chloropropane	U		552	10000	2000	03/02/2023 14:16	WG2015680
1,2-Dibromoethane	U		252	2000	2000	03/02/2023 14:16	WG2015680
Dibromomethane	U		244	2000	2000	03/02/2023 14:16	WG2015680
1,2-Dichlorobenzene	U		214	2000	2000	03/02/2023 14:16	WG2015680
1,3-Dichlorobenzene	U		220	2000	2000	03/02/2023 14:16	WG2015680
1,4-Dichlorobenzene	U		240	2000	2000	03/02/2023 14:16	WG2015680
Dichlorodifluoromethane	U		748	10000	2000	03/02/2023 14:16	WG2015680
1,1-Dichloroethane	U		200	2000	2000	03/02/2023 14:16	WG2015680
1,2-Dichloroethane	U		164	2000	2000	03/02/2023 14:16	WG2015680
1,1-Dichloroethene	U		376	2000	2000	03/02/2023 14:16	WG2015680
cis-1,2-Dichloroethene	78900		252	2000	2000	03/02/2023 14:16	WG2015680
trans-1,2-Dichloroethene	529	J	298	2000	2000	03/02/2023 14:16	WG2015680
1,2-Dichloropropane	U		298	2000	2000	03/02/2023 14:16	WG2015680
1,1-Dichloropropene	U		284	2000	2000	03/02/2023 14:16	WG2015680
1,3-Dichloropropane	U		220	2000	2000	03/02/2023 14:16	WG2015680
cis-1,3-Dichloropropene	U		222	2000	2000	03/02/2023 14:16	WG2015680
trans-1,3-Dichloropropene	U		236	2000	2000	03/02/2023 14:16	WG2015680
2,2-Dichloropropane	U		322	2000	2000	03/02/2023 14:16	WG2015680
Di-isopropyl ether	U	J4	210	2000	2000	03/02/2023 14:16	WG2015680
Ethylbenzene	U		274	2000	2000	03/02/2023 14:16	WG2015680
Hexachloro-1,3-butadiene	U	C3	674	2000	2000	03/02/2023 14:16	WG2015680
Isopropylbenzene	U		210	2000	2000	03/02/2023 14:16	WG2015680
p-Isopropyltoluene	U		240	2000	2000	03/02/2023 14:16	WG2015680
2-Butanone (MEK)	U	J4	2380	20000	2000	03/02/2023 14:16	WG2015680
Methylene Chloride	U		860	10000	2000	03/02/2023 14:16	WG2015680
4-Methyl-2-pentanone (MIBK)	U	J4	956	20000	2000	03/02/2023 14:16	WG2015680
Methyl tert-butyl ether	U		202	2000	2000	03/02/2023 14:16	WG2015680
Naphthalene	U	C3	2000	10000	2000	03/02/2023 14:16	WG2015680
n-Propylbenzene	U		199	2000	2000	03/02/2023 14:16	WG2015680
Styrene	U		236	2000	2000	03/02/2023 14:16	WG2015680
1,1,1,2-Tetrachloroethane	U		294	2000	2000	03/02/2023 14:16	WG2015680
1,1,2,2-Tetrachloroethane	U		266	2000	2000	03/02/2023 14:16	WG2015680
1,1,2-Trichlorotrifluoroethane	4200		360	2000	2000	03/02/2023 14:16	WG2015680
Tetrachloroethene	99800		600	2000	2000	03/02/2023 14:16	WG2015680
Toluene	U		556	2000	2000	03/02/2023 14:16	WG2015680
1,2,3-Trichlorobenzene	U	C3	460	2000	2000	03/02/2023 14:16	WG2015680

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,4-Trichlorobenzene	U	C3	962	2000	2000	03/02/2023 14:16	WG2015680
1,1,1-Trichloroethane	U		298	2000	2000	03/02/2023 14:16	WG2015680
1,1,2-Trichloroethane	U		316	2000	2000	03/02/2023 14:16	WG2015680
Trichloroethene	10200		380	2000	2000	03/02/2023 14:16	WG2015680
Trichlorofluoromethane	U		320	10000	2000	03/02/2023 14:16	WG2015680
1,2,3-Trichloropropane	U		474	5000	2000	03/02/2023 14:16	WG2015680
1,2,4-Trimethylbenzene	U		644	2000	2000	03/02/2023 14:16	WG2015680
1,2,3-Trimethylbenzene	U		208	2000	2000	03/02/2023 14:16	WG2015680
1,3,5-Trimethylbenzene	U		208	2000	2000	03/02/2023 14:16	WG2015680
Vinyl chloride	U		468	2000	2000	03/02/2023 14:16	WG2015680
Xylenes, Total	U		348	6000	2000	03/02/2023 14:16	WG2015680
(S) Toluene-d8	*105*			*80.0-120*		*03/02/2023 14:16*	WG2015680
(S) Toluene-d8	*96.9*			*80.0-120*		*03/08/2023 03:17*	WG2018363
(S) 4-Bromofluorobenzene	*85.6*			*77.0-126*		*03/02/2023 14:16*	WG2015680
(S) 4-Bromofluorobenzene	*91.9*			*77.0-126*		*03/08/2023 03:17*	WG2018363
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*03/02/2023 14:16*	WG2015680
(S) 1,2-Dichloroethane-d4	*93.3*			*70.0-130*		*03/08/2023 03:17*	WG2018363

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methane	11600		29.1	100	10	03/05/2023 13:42	WG2017295
Ethane	241		4.07	13.0	1	03/04/2023 11:09	WG2016715
Ethene	399		4.26	13.0	1	03/04/2023 11:09	WG2016715

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U	J4	11.3	50.0	1	03/02/2023 11:05	WG2015680
Acrolein	U	C3	2.54	50.0	1	03/04/2023 00:46	WG2016731
Acrylonitrile	U		0.671	10.0	1	03/02/2023 11:05	WG2015680
Benzene	0.233	J	0.0941	1.00	1	03/02/2023 11:05	WG2015680
Bromobenzene	0.165	J	0.118	1.00	1	03/02/2023 11:05	WG2015680
Bromodichloromethane	U		0.136	1.00	1	03/02/2023 11:05	WG2015680
Bromoform	U		0.129	1.00	1	03/02/2023 11:05	WG2015680
Bromomethane	U		0.605	5.00	1	03/02/2023 11:05	WG2015680
n-Butylbenzene	U		0.157	1.00	1	03/02/2023 11:05	WG2015680
sec-Butylbenzene	U		0.125	1.00	1	03/02/2023 11:05	WG2015680
tert-Butylbenzene	U		0.127	1.00	1	03/02/2023 11:05	WG2015680
Carbon disulfide	U		0.0962	1.00	1	03/02/2023 11:05	WG2015680
Carbon tetrachloride	U		0.128	1.00	1	03/02/2023 11:05	WG2015680
Chlorobenzene	U		0.116	1.00	1	03/02/2023 11:05	WG2015680
Chlorodibromomethane	U		0.140	1.00	1	03/02/2023 11:05	WG2015680
Chloroethane	2.42	J	0.192	5.00	1	03/02/2023 11:05	WG2015680
Chloroform	U		0.111	5.00	1	03/02/2023 11:05	WG2015680
Chloromethane	U		0.960	2.50	1	03/02/2023 11:05	WG2015680
2-Chlorotoluene	U		0.106	1.00	1	03/02/2023 11:05	WG2015680
4-Chlorotoluene	U		0.114	1.00	1	03/02/2023 11:05	WG2015680
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/02/2023 11:05	WG2015680
1,2-Dibromoethane	U		0.126	1.00	1	03/02/2023 11:05	WG2015680
Dibromomethane	U		0.122	1.00	1	03/02/2023 11:05	WG2015680
1,2-Dichlorobenzene	U		0.107	1.00	1	03/02/2023 11:05	WG2015680
1,3-Dichlorobenzene	U		0.110	1.00	1	03/02/2023 11:05	WG2015680
1,4-Dichlorobenzene	U		0.120	1.00	1	03/02/2023 11:05	WG2015680
Dichlorodifluoromethane	U		0.374	5.00	1	03/02/2023 11:05	WG2015680
1,1-Dichloroethane	U		0.100	1.00	1	03/02/2023 11:05	WG2015680
1,2-Dichloroethane	U		0.0819	1.00	1	03/02/2023 11:05	WG2015680
1,1-Dichloroethene	U		0.188	1.00	1	03/02/2023 11:05	WG2015680
cis-1,2-Dichloroethene	31.5		0.126	1.00	1	03/02/2023 11:05	WG2015680
trans-1,2-Dichloroethene	25.4		0.149	1.00	1	03/02/2023 11:05	WG2015680
1,2-Dichloropropane	U		0.149	1.00	1	03/02/2023 11:05	WG2015680
1,1-Dichloropropene	U		0.142	1.00	1	03/02/2023 11:05	WG2015680
1,3-Dichloropropane	U		0.110	1.00	1	03/02/2023 11:05	WG2015680
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/02/2023 11:05	WG2015680
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/02/2023 11:05	WG2015680
2,2-Dichloropropane	U		0.161	1.00	1	03/02/2023 11:05	WG2015680
Di-isopropyl ether	U	J4	0.105	1.00	1	03/02/2023 11:05	WG2015680
Ethylbenzene	U		0.137	1.00	1	03/02/2023 11:05	WG2015680
Hexachloro-1,3-butadiene	U	C3	0.337	1.00	1	03/02/2023 11:05	WG2015680
Isopropylbenzene	0.113	J	0.105	1.00	1	03/02/2023 11:05	WG2015680
p-Isopropyltoluene	U		0.120	1.00	1	03/02/2023 11:05	WG2015680
2-Butanone (MEK)	4.81	J J4	1.19	10.0	1	03/02/2023 11:05	WG2015680
Methylene Chloride	U		0.430	5.00	1	03/02/2023 11:05	WG2015680
4-Methyl-2-pentanone (MIBK)	0.744	J J4	0.478	10.0	1	03/02/2023 11:05	WG2015680
Methyl tert-butyl ether	U		0.101	1.00	1	03/02/2023 11:05	WG2015680
Naphthalene	U	C3	1.00	5.00	1	03/02/2023 11:05	WG2015680

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
n-Propylbenzene	0.100	J	0.0993	1.00	1	03/02/2023 11:05	WG2015680
Styrene	U		0.118	1.00	1	03/02/2023 11:05	WG2015680
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/02/2023 11:05	WG2015680
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/02/2023 11:05	WG2015680
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/02/2023 11:05	WG2015680
Tetrachloroethene	U		0.300	1.00	1	03/02/2023 11:05	WG2015680
Toluene	0.461	J	0.278	1.00	1	03/02/2023 11:05	WG2015680
1,2,3-Trichlorobenzene	U	C3	0.230	1.00	1	03/02/2023 11:05	WG2015680
1,2,4-Trichlorobenzene	U	C3	0.481	1.00	1	03/02/2023 11:05	WG2015680
1,1,1-Trichloroethane	U		0.149	1.00	1	03/02/2023 11:05	WG2015680
1,1,2-Trichloroethane	U		0.158	1.00	1	03/02/2023 11:05	WG2015680
Trichloroethene	2.06		0.190	1.00	1	03/02/2023 11:05	WG2015680
Trichlorofluoromethane	U		0.160	5.00	1	03/02/2023 11:05	WG2015680
1,2,3-Trichloropropane	U		0.237	2.50	1	03/02/2023 11:05	WG2015680
1,2,4-Trimethylbenzene	0.604	J	0.322	1.00	1	03/02/2023 11:05	WG2015680
1,2,3-Trimethylbenzene	0.516	J	0.104	1.00	1	03/02/2023 11:05	WG2015680
1,3,5-Trimethylbenzene	0.372	J	0.104	1.00	1	03/02/2023 11:05	WG2015680
Vinyl chloride	23.1		0.234	1.00	1	03/02/2023 11:05	WG2015680
Xylenes, Total	0.489	J	0.174	3.00	1	03/02/2023 11:05	WG2015680
(S) Toluene-d8	*100*			*80.0-120*		*03/02/2023 11:05*	WG2015680
(S) Toluene-d8	*101*			*80.0-120*		*03/04/2023 00:46*	WG2016731
(S) 4-Bromofluorobenzene	*96.0*			*77.0-126*		*03/02/2023 11:05*	WG2015680
(S) 4-Bromofluorobenzene	*108*			*77.0-126*		*03/04/2023 00:46*	WG2016731
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*03/02/2023 11:05*	WG2015680
(S) 1,2-Dichloroethane-d4	*92.6*			*70.0-130*		*03/04/2023 00:46*	WG2016731

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	J4	11.3	50.0	1	03/02/2023 11:24	WG2015680
Acrolein	U	C3	2.54	50.0	1	03/04/2023 01:05	WG2016731
Acrylonitrile	U		0.671	10.0	1	03/02/2023 11:24	WG2015680
Benzene	U		0.0941	1.00	1	03/02/2023 11:24	WG2015680
Bromobenzene	U		0.118	1.00	1	03/02/2023 11:24	WG2015680
Bromodichloromethane	U		0.136	1.00	1	03/02/2023 11:24	WG2015680
Bromoform	U		0.129	1.00	1	03/02/2023 11:24	WG2015680
Bromomethane	U		0.605	5.00	1	03/02/2023 11:24	WG2015680
n-Butylbenzene	U		0.157	1.00	1	03/02/2023 11:24	WG2015680
sec-Butylbenzene	U		0.125	1.00	1	03/02/2023 11:24	WG2015680
tert-Butylbenzene	U		0.127	1.00	1	03/02/2023 11:24	WG2015680
Carbon disulfide	U		0.0962	1.00	1	03/02/2023 11:24	WG2015680
Carbon tetrachloride	U		0.128	1.00	1	03/02/2023 11:24	WG2015680
Chlorobenzene	U		0.116	1.00	1	03/02/2023 11:24	WG2015680
Chlorodibromomethane	U		0.140	1.00	1	03/02/2023 11:24	WG2015680
Chloroethane	U		0.192	5.00	1	03/02/2023 11:24	WG2015680
Chloroform	U		0.111	5.00	1	03/02/2023 11:24	WG2015680
Chloromethane	U		0.960	2.50	1	03/02/2023 11:24	WG2015680
2-Chlorotoluene	U		0.106	1.00	1	03/02/2023 11:24	WG2015680
4-Chlorotoluene	U		0.114	1.00	1	03/02/2023 11:24	WG2015680
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/02/2023 11:24	WG2015680
1,2-Dibromoethane	U		0.126	1.00	1	03/02/2023 11:24	WG2015680
Dibromomethane	U		0.122	1.00	1	03/02/2023 11:24	WG2015680
1,2-Dichlorobenzene	U		0.107	1.00	1	03/02/2023 11:24	WG2015680
1,3-Dichlorobenzene	U		0.110	1.00	1	03/02/2023 11:24	WG2015680
1,4-Dichlorobenzene	U		0.120	1.00	1	03/02/2023 11:24	WG2015680
Dichlorodifluoromethane	U		0.374	5.00	1	03/02/2023 11:24	WG2015680
1,1-Dichloroethane	U		0.100	1.00	1	03/02/2023 11:24	WG2015680
1,2-Dichloroethane	U		0.0819	1.00	1	03/02/2023 11:24	WG2015680
1,1-Dichloroethene	U		0.188	1.00	1	03/02/2023 11:24	WG2015680
cis-1,2-Dichloroethene	U		0.126	1.00	1	03/02/2023 11:24	WG2015680
trans-1,2-Dichloroethene	U		0.149	1.00	1	03/02/2023 11:24	WG2015680
1,2-Dichloropropane	U		0.149	1.00	1	03/02/2023 11:24	WG2015680
1,1-Dichloropropene	U		0.142	1.00	1	03/02/2023 11:24	WG2015680
1,3-Dichloropropane	U		0.110	1.00	1	03/02/2023 11:24	WG2015680
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/02/2023 11:24	WG2015680
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/02/2023 11:24	WG2015680
2,2-Dichloropropane	U		0.161	1.00	1	03/02/2023 11:24	WG2015680
Di-isopropyl ether	U	J4	0.105	1.00	1	03/02/2023 11:24	WG2015680
Ethylbenzene	U		0.137	1.00	1	03/02/2023 11:24	WG2015680
Hexachloro-1,3-butadiene	U	C3	0.337	1.00	1	03/02/2023 11:24	WG2015680
Isopropylbenzene	U		0.105	1.00	1	03/02/2023 11:24	WG2015680
p-Isopropyltoluene	U		0.120	1.00	1	03/02/2023 11:24	WG2015680
2-Butanone (MEK)	U	J4	1.19	10.0	1	03/02/2023 11:24	WG2015680
Methylene Chloride	U		0.430	5.00	1	03/02/2023 11:24	WG2015680
4-Methyl-2-pentanone (MIBK)	U	J4	0.478	10.0	1	03/02/2023 11:24	WG2015680
Methyl tert-butyl ether	U		0.101	1.00	1	03/02/2023 11:24	WG2015680
Naphthalene	U	C3	1.00	5.00	1	03/02/2023 11:24	WG2015680
n-Propylbenzene	U		0.0993	1.00	1	03/02/2023 11:24	WG2015680
Styrene	U		0.118	1.00	1	03/02/2023 11:24	WG2015680
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/02/2023 11:24	WG2015680
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/02/2023 11:24	WG2015680
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/02/2023 11:24	WG2015680
Tetrachloroethene	U		0.300	1.00	1	03/02/2023 11:24	WG2015680
Toluene	U		0.278	1.00	1	03/02/2023 11:24	WG2015680
1,2,3-Trichlorobenzene	U	C3	0.230	1.00	1	03/02/2023 11:24	WG2015680

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2,4-Trichlorobenzene	U	C3	0.481	1.00	1	03/02/2023 11:24	WG2015680
1,1,1-Trichloroethane	U		0.149	1.00	1	03/02/2023 11:24	WG2015680
1,1,2-Trichloroethane	U		0.158	1.00	1	03/02/2023 11:24	WG2015680
Trichloroethene	U		0.190	1.00	1	03/02/2023 11:24	WG2015680
Trichlorofluoromethane	U		0.160	5.00	1	03/02/2023 11:24	WG2015680
1,2,3-Trichloropropane	U		0.237	2.50	1	03/02/2023 11:24	WG2015680
1,2,4-Trimethylbenzene	U		0.322	1.00	1	03/02/2023 11:24	WG2015680
1,2,3-Trimethylbenzene	U		0.104	1.00	1	03/02/2023 11:24	WG2015680
1,3,5-Trimethylbenzene	U		0.104	1.00	1	03/02/2023 11:24	WG2015680
Vinyl chloride	U		0.234	1.00	1	03/02/2023 11:24	WG2015680
Xylenes, Total	U		0.174	3.00	1	03/02/2023 11:24	WG2015680
(S) Toluene-d8	*104*			*80.0-120*		*03/02/2023 11:24*	WG2015680
(S) Toluene-d8	*102*			*80.0-120*		*03/04/2023 01:05*	WG2016731
(S) 4-Bromofluorobenzene	*91.3*			*77.0-126*		*03/02/2023 11:24*	WG2015680
(S) 4-Bromofluorobenzene	*108*			*77.0-126*		*03/04/2023 01:05*	WG2016731
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*03/02/2023 11:24*	WG2015680
(S) 1,2-Dichloroethane-d4	*91.4*			*70.0-130*		*03/04/2023 01:05*	WG2016731

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	J4	11.3	50.0	1	03/02/2023 11:43	WG2015680
Acrolein	U	C3	2.54	50.0	1	03/04/2023 01:24	WG2016731
Acrylonitrile	U		0.671	10.0	1	03/02/2023 11:43	WG2015680
Benzene	U		0.0941	1.00	1	03/02/2023 11:43	WG2015680
Bromobenzene	U		0.118	1.00	1	03/02/2023 11:43	WG2015680
Bromodichloromethane	U		0.136	1.00	1	03/02/2023 11:43	WG2015680
Bromoform	U		0.129	1.00	1	03/02/2023 11:43	WG2015680
Bromomethane	U		0.605	5.00	1	03/02/2023 11:43	WG2015680
n-Butylbenzene	U		0.157	1.00	1	03/02/2023 11:43	WG2015680
sec-Butylbenzene	U		0.125	1.00	1	03/02/2023 11:43	WG2015680
tert-Butylbenzene	U		0.127	1.00	1	03/02/2023 11:43	WG2015680
Carbon disulfide	U		0.0962	1.00	1	03/02/2023 11:43	WG2015680
Carbon tetrachloride	U		0.128	1.00	1	03/02/2023 11:43	WG2015680
Chlorobenzene	U		0.116	1.00	1	03/02/2023 11:43	WG2015680
Chlorodibromomethane	U		0.140	1.00	1	03/02/2023 11:43	WG2015680
Chloroethane	U		0.192	5.00	1	03/02/2023 11:43	WG2015680
Chloroform	U		0.111	5.00	1	03/02/2023 11:43	WG2015680
Chloromethane	U		0.960	2.50	1	03/02/2023 11:43	WG2015680
2-Chlorotoluene	U		0.106	1.00	1	03/02/2023 11:43	WG2015680
4-Chlorotoluene	U		0.114	1.00	1	03/02/2023 11:43	WG2015680
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/02/2023 11:43	WG2015680
1,2-Dibromoethane	U		0.126	1.00	1	03/02/2023 11:43	WG2015680
Dibromomethane	U		0.122	1.00	1	03/02/2023 11:43	WG2015680
1,2-Dichlorobenzene	U		0.107	1.00	1	03/02/2023 11:43	WG2015680
1,3-Dichlorobenzene	U		0.110	1.00	1	03/02/2023 11:43	WG2015680
1,4-Dichlorobenzene	U		0.120	1.00	1	03/02/2023 11:43	WG2015680
Dichlorodifluoromethane	U		0.374	5.00	1	03/02/2023 11:43	WG2015680
1,1-Dichloroethane	U		0.100	1.00	1	03/02/2023 11:43	WG2015680
1,2-Dichloroethane	U		0.0819	1.00	1	03/02/2023 11:43	WG2015680
1,1-Dichloroethene	U		0.188	1.00	1	03/02/2023 11:43	WG2015680
cis-1,2-Dichloroethene	U		0.126	1.00	1	03/02/2023 11:43	WG2015680
trans-1,2-Dichloroethene	U		0.149	1.00	1	03/02/2023 11:43	WG2015680
1,2-Dichloropropane	U		0.149	1.00	1	03/02/2023 11:43	WG2015680
1,1-Dichloropropene	U		0.142	1.00	1	03/02/2023 11:43	WG2015680
1,3-Dichloropropane	U		0.110	1.00	1	03/02/2023 11:43	WG2015680
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/02/2023 11:43	WG2015680
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/02/2023 11:43	WG2015680
2,2-Dichloropropane	U		0.161	1.00	1	03/02/2023 11:43	WG2015680
Di-isopropyl ether	U	J4	0.105	1.00	1	03/02/2023 11:43	WG2015680
Ethylbenzene	U		0.137	1.00	1	03/02/2023 11:43	WG2015680
Hexachloro-1,3-butadiene	U	C3	0.337	1.00	1	03/02/2023 11:43	WG2015680
Isopropylbenzene	U		0.105	1.00	1	03/02/2023 11:43	WG2015680
p-Isopropyltoluene	U		0.120	1.00	1	03/02/2023 11:43	WG2015680
2-Butanone (MEK)	U	J4	1.19	10.0	1	03/02/2023 11:43	WG2015680
Methylene Chloride	U		0.430	5.00	1	03/02/2023 11:43	WG2015680
4-Methyl-2-pentanone (MIBK)	U	J4	0.478	10.0	1	03/02/2023 11:43	WG2015680
Methyl tert-butyl ether	U		0.101	1.00	1	03/02/2023 11:43	WG2015680
Naphthalene	U	C3	1.00	5.00	1	03/02/2023 11:43	WG2015680
n-Propylbenzene	U		0.0993	1.00	1	03/02/2023 11:43	WG2015680
Styrene	U		0.118	1.00	1	03/02/2023 11:43	WG2015680
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/02/2023 11:43	WG2015680
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/02/2023 11:43	WG2015680
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/02/2023 11:43	WG2015680
Tetrachloroethene	U		0.300	1.00	1	03/02/2023 11:43	WG2015680
Toluene	U		0.278	1.00	1	03/02/2023 11:43	WG2015680
1,2,3-Trichlorobenzene	U	C3	0.230	1.00	1	03/02/2023 11:43	WG2015680

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,4-Trichlorobenzene	U	C3	0.481	1.00	1	03/02/2023 11:43	WG2015680
1,1,1-Trichloroethane	U		0.149	1.00	1	03/02/2023 11:43	WG2015680
1,1,2-Trichloroethane	U		0.158	1.00	1	03/02/2023 11:43	WG2015680
Trichloroethene	U		0.190	1.00	1	03/02/2023 11:43	WG2015680
Trichlorofluoromethane	U		0.160	5.00	1	03/02/2023 11:43	WG2015680
1,2,3-Trichloropropane	U		0.237	2.50	1	03/02/2023 11:43	WG2015680
1,2,4-Trimethylbenzene	U		0.322	1.00	1	03/02/2023 11:43	WG2015680
1,2,3-Trimethylbenzene	U		0.104	1.00	1	03/02/2023 11:43	WG2015680
1,3,5-Trimethylbenzene	U		0.104	1.00	1	03/02/2023 11:43	WG2015680
Vinyl chloride	U		0.234	1.00	1	03/02/2023 11:43	WG2015680
Xylenes, Total	U		0.174	3.00	1	03/02/2023 11:43	WG2015680
(S) Toluene-d8	*103*			*80.0-120*		*03/02/2023 11:43*	WG2015680
(S) Toluene-d8	*101*			*80.0-120*		*03/04/2023 01:24*	WG2016731
(S) 4-Bromofluorobenzene	*90.0*			*77.0-126*		*03/02/2023 11:43*	WG2015680
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*03/04/2023 01:24*	WG2016731
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*03/02/2023 11:43*	WG2015680
(S) 1,2-Dichloroethane-d4	*89.4*			*70.0-130*		*03/04/2023 01:24*	WG2016731

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	J4	11.3	50.0	1	03/02/2023 12:03	WG2015680
Acrolein	U	C3	2.54	50.0	1	03/04/2023 01:44	WG2016731
Acrylonitrile	U		0.671	10.0	1	03/02/2023 12:03	WG2015680
Benzene	U		0.0941	1.00	1	03/02/2023 12:03	WG2015680
Bromobenzene	U		0.118	1.00	1	03/02/2023 12:03	WG2015680
Bromodichloromethane	U		0.136	1.00	1	03/02/2023 12:03	WG2015680
Bromoform	U		0.129	1.00	1	03/02/2023 12:03	WG2015680
Bromomethane	U		0.605	5.00	1	03/02/2023 12:03	WG2015680
n-Butylbenzene	U		0.157	1.00	1	03/02/2023 12:03	WG2015680
sec-Butylbenzene	0.197	J	0.125	1.00	1	03/02/2023 12:03	WG2015680
tert-Butylbenzene	U		0.127	1.00	1	03/02/2023 12:03	WG2015680
Carbon disulfide	U		0.0962	1.00	1	03/02/2023 12:03	WG2015680
Carbon tetrachloride	U		0.128	1.00	1	03/02/2023 12:03	WG2015680
Chlorobenzene	U		0.116	1.00	1	03/02/2023 12:03	WG2015680
Chlorodibromomethane	U		0.140	1.00	1	03/02/2023 12:03	WG2015680
Chloroethane	0.585	J	0.192	5.00	1	03/02/2023 12:03	WG2015680
Chloroform	U		0.111	5.00	1	03/02/2023 12:03	WG2015680
Chloromethane	U		0.960	2.50	1	03/02/2023 12:03	WG2015680
2-Chlorotoluene	U		0.106	1.00	1	03/02/2023 12:03	WG2015680
4-Chlorotoluene	U		0.114	1.00	1	03/02/2023 12:03	WG2015680
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/02/2023 12:03	WG2015680
1,2-Dibromoethane	U		0.126	1.00	1	03/02/2023 12:03	WG2015680
Dibromomethane	U		0.122	1.00	1	03/02/2023 12:03	WG2015680
1,2-Dichlorobenzene	U		0.107	1.00	1	03/02/2023 12:03	WG2015680
1,3-Dichlorobenzene	U		0.110	1.00	1	03/02/2023 12:03	WG2015680
1,4-Dichlorobenzene	0.133	J	0.120	1.00	1	03/02/2023 12:03	WG2015680
Dichlorodifluoromethane	U		0.374	5.00	1	03/02/2023 12:03	WG2015680
1,1-Dichloroethane	U		0.100	1.00	1	03/02/2023 12:03	WG2015680
1,2-Dichloroethane	U		0.0819	1.00	1	03/02/2023 12:03	WG2015680
1,1-Dichloroethene	U		0.188	1.00	1	03/02/2023 12:03	WG2015680
cis-1,2-Dichloroethene	57.5		0.126	1.00	1	03/02/2023 12:03	WG2015680
trans-1,2-Dichloroethene	3.94		0.149	1.00	1	03/02/2023 12:03	WG2015680
1,2-Dichloropropane	U		0.149	1.00	1	03/02/2023 12:03	WG2015680
1,1-Dichloropropene	U		0.142	1.00	1	03/02/2023 12:03	WG2015680
1,3-Dichloropropane	U		0.110	1.00	1	03/02/2023 12:03	WG2015680
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/02/2023 12:03	WG2015680
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/02/2023 12:03	WG2015680
2,2-Dichloropropane	U		0.161	1.00	1	03/02/2023 12:03	WG2015680
Di-isopropyl ether	U	J4	0.105	1.00	1	03/02/2023 12:03	WG2015680
Ethylbenzene	U		0.137	1.00	1	03/02/2023 12:03	WG2015680
Hexachloro-1,3-butadiene	U	C3	0.337	1.00	1	03/02/2023 12:03	WG2015680
Isopropylbenzene	0.228	J	0.105	1.00	1	03/02/2023 12:03	WG2015680
p-Isopropyltoluene	0.207	J	0.120	1.00	1	03/02/2023 12:03	WG2015680
2-Butanone (MEK)	U	J4	1.19	10.0	1	03/02/2023 12:03	WG2015680
Methylene Chloride	U		0.430	5.00	1	03/02/2023 12:03	WG2015680
4-Methyl-2-pentanone (MIBK)	U	J4	0.478	10.0	1	03/02/2023 12:03	WG2015680
Methyl tert-butyl ether	U		0.101	1.00	1	03/02/2023 12:03	WG2015680
Naphthalene	U	C3	1.00	5.00	1	03/02/2023 12:03	WG2015680
n-Propylbenzene	0.733	J	0.0993	1.00	1	03/02/2023 12:03	WG2015680
Styrene	U		0.118	1.00	1	03/02/2023 12:03	WG2015680
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/02/2023 12:03	WG2015680
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/02/2023 12:03	WG2015680
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/02/2023 12:03	WG2015680
Tetrachloroethene	U		0.300	1.00	1	03/02/2023 12:03	WG2015680
Toluene	1.15		0.278	1.00	1	03/02/2023 12:03	WG2015680
1,2,3-Trichlorobenzene	U	C3	0.230	1.00	1	03/02/2023 12:03	WG2015680

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,4-Trichlorobenzene	U	C3	0.481	1.00	1	03/02/2023 12:03	WG2015680
1,1,1-Trichloroethane	U		0.149	1.00	1	03/02/2023 12:03	WG2015680
1,1,2-Trichloroethane	U		0.158	1.00	1	03/02/2023 12:03	WG2015680
Trichloroethene	0.235	J	0.190	1.00	1	03/02/2023 12:03	WG2015680
Trichlorofluoromethane	U		0.160	5.00	1	03/02/2023 12:03	WG2015680
1,2,3-Trichloropropane	U		0.237	2.50	1	03/02/2023 12:03	WG2015680
1,2,4-Trimethylbenzene	5.22		0.322	1.00	1	03/02/2023 12:03	WG2015680
1,2,3-Trimethylbenzene	2.20		0.104	1.00	1	03/02/2023 12:03	WG2015680
1,3,5-Trimethylbenzene	2.30		0.104	1.00	1	03/02/2023 12:03	WG2015680
Vinyl chloride	7.98		0.234	1.00	1	03/02/2023 12:03	WG2015680
Xylenes, Total	1.32	J	0.174	3.00	1	03/02/2023 12:03	WG2015680
(S) Toluene-d8	*101*			*80.0-120*		*03/02/2023 12:03*	WG2015680
(S) Toluene-d8	*99.6*			*80.0-120*		*03/04/2023 01:44*	WG2016731
(S) 4-Bromofluorobenzene	*95.4*			*77.0-126*		*03/02/2023 12:03*	WG2015680
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*03/04/2023 01:44*	WG2016731
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*03/02/2023 12:03*	WG2015680
(S) 1,2-Dichloroethane-d4	*89.8*			*70.0-130*		*03/04/2023 01:44*	WG2016731

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		565	2500	50	03/03/2023 20:48	WG2016546
Acrolein	U		127	2500	50	03/03/2023 20:48	WG2016546
Acrylonitrile	U		33.6	500	50	03/03/2023 20:48	WG2016546
Benzene	U		4.71	50.0	50	03/03/2023 20:48	WG2016546
Bromobenzene	U		5.90	50.0	50	03/03/2023 20:48	WG2016546
Bromodichloromethane	U		6.80	50.0	50	03/03/2023 20:48	WG2016546
Bromoform	U		6.45	50.0	50	03/03/2023 20:48	WG2016546
Bromomethane	U		30.3	250	50	03/03/2023 20:48	WG2016546
n-Butylbenzene	U		7.85	50.0	50	03/03/2023 20:48	WG2016546
sec-Butylbenzene	U		6.25	50.0	50	03/03/2023 20:48	WG2016546
tert-Butylbenzene	U		6.35	50.0	50	03/03/2023 20:48	WG2016546
Carbon disulfide	U		4.81	50.0	50	03/03/2023 20:48	WG2016546
Carbon tetrachloride	U		6.40	50.0	50	03/03/2023 20:48	WG2016546
Chlorobenzene	U		5.80	50.0	50	03/03/2023 20:48	WG2016546
Chlorodibromomethane	U		7.00	50.0	50	03/03/2023 20:48	WG2016546
Chloroethane	U		9.60	250	50	03/03/2023 20:48	WG2016546
Chloroform	U		5.55	250	50	03/03/2023 20:48	WG2016546
Chloromethane	U		48.0	125	50	03/03/2023 20:48	WG2016546
2-Chlorotoluene	U		5.30	50.0	50	03/03/2023 20:48	WG2016546
4-Chlorotoluene	U		5.70	50.0	50	03/03/2023 20:48	WG2016546
1,2-Dibromo-3-Chloropropane	U		13.8	250	50	03/03/2023 20:48	WG2016546
1,2-Dibromoethane	U		6.30	50.0	50	03/03/2023 20:48	WG2016546
Dibromomethane	U		6.10	50.0	50	03/03/2023 20:48	WG2016546
1,2-Dichlorobenzene	U		5.35	50.0	50	03/03/2023 20:48	WG2016546
1,3-Dichlorobenzene	U		5.50	50.0	50	03/03/2023 20:48	WG2016546
1,4-Dichlorobenzene	U		6.00	50.0	50	03/03/2023 20:48	WG2016546
Dichlorodifluoromethane	U		18.7	250	50	03/03/2023 20:48	WG2016546
1,1-Dichloroethane	U		5.00	50.0	50	03/03/2023 20:48	WG2016546
1,2-Dichloroethane	U		4.09	50.0	50	03/03/2023 20:48	WG2016546
1,1-Dichloroethene	U		9.40	50.0	50	03/03/2023 20:48	WG2016546
cis-1,2-Dichloroethene	3340		25.2	200	200	03/07/2023 00:16	WG2017869
trans-1,2-Dichloroethene	474		7.45	50.0	50	03/03/2023 20:48	WG2016546
1,2-Dichloropropane	U		7.45	50.0	50	03/03/2023 20:48	WG2016546
1,1-Dichloropropene	U		7.10	50.0	50	03/03/2023 20:48	WG2016546
1,3-Dichloropropane	U		5.50	50.0	50	03/03/2023 20:48	WG2016546
cis-1,3-Dichloropropene	U		5.55	50.0	50	03/03/2023 20:48	WG2016546
trans-1,3-Dichloropropene	U		5.90	50.0	50	03/03/2023 20:48	WG2016546
2,2-Dichloropropane	U		8.05	50.0	50	03/03/2023 20:48	WG2016546
Di-isopropyl ether	U		5.25	50.0	50	03/03/2023 20:48	WG2016546
Ethylbenzene	U		6.85	50.0	50	03/03/2023 20:48	WG2016546
Hexachloro-1,3-butadiene	U		16.9	50.0	50	03/03/2023 20:48	WG2016546
Isopropylbenzene	U		5.25	50.0	50	03/03/2023 20:48	WG2016546
p-Isopropyltoluene	U		6.00	50.0	50	03/03/2023 20:48	WG2016546
2-Butanone (MEK)	U		59.5	500	50	03/03/2023 20:48	WG2016546
Methylene Chloride	U		21.5	250	50	03/03/2023 20:48	WG2016546
4-Methyl-2-pentanone (MIBK)	U		23.9	500	50	03/03/2023 20:48	WG2016546
Methyl tert-butyl ether	U		5.05	50.0	50	03/03/2023 20:48	WG2016546
Naphthalene	U		50.0	250	50	03/03/2023 20:48	WG2016546
n-Propylbenzene	U		4.97	50.0	50	03/03/2023 20:48	WG2016546
Styrene	U		5.90	50.0	50	03/03/2023 20:48	WG2016546
1,1,1,2-Tetrachloroethane	U		7.35	50.0	50	03/03/2023 20:48	WG2016546
1,1,2,2-Tetrachloroethane	U		6.65	50.0	50	03/03/2023 20:48	WG2016546
1,1,2-Trichlorotrifluoroethane	U		9.00	50.0	50	03/03/2023 20:48	WG2016546
Tetrachloroethene	U		15.0	50.0	50	03/03/2023 20:48	WG2016546
Toluene	U		13.9	50.0	50	03/03/2023 20:48	WG2016546
1,2,3-Trichlorobenzene	U		11.5	50.0	50	03/03/2023 20:48	WG2016546

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,4-Trichlorobenzene	U		24.1	50.0	50	03/03/2023 20:48	WG2016546
1,1,1-Trichloroethane	U		7.45	50.0	50	03/03/2023 20:48	WG2016546
1,1,2-Trichloroethane	U		7.90	50.0	50	03/03/2023 20:48	WG2016546
Trichloroethene	U		9.50	50.0	50	03/03/2023 20:48	WG2016546
Trichlorofluoromethane	U		8.00	250	50	03/03/2023 20:48	WG2016546
1,2,3-Trichloropropane	U		11.9	125	50	03/03/2023 20:48	WG2016546
1,2,4-Trimethylbenzene	U		16.1	50.0	50	03/03/2023 20:48	WG2016546
1,2,3-Trimethylbenzene	U		5.20	50.0	50	03/03/2023 20:48	WG2016546
1,3,5-Trimethylbenzene	U		5.20	50.0	50	03/03/2023 20:48	WG2016546
Vinyl chloride	2860		11.7	50.0	50	03/03/2023 20:48	WG2016546
Xylenes, Total	U		8.70	150	50	03/03/2023 20:48	WG2016546
(S) Toluene-d8	*101*			*80.0-120*		*03/03/2023 20:48*	WG2016546
(S) Toluene-d8	*108*			*80.0-120*		*03/07/2023 00:16*	WG2017869
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*03/03/2023 20:48*	WG2016546
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*03/07/2023 00:16*	WG2017869
(S) 1,2-Dichloroethane-d4	*96.0*			*70.0-130*		*03/03/2023 20:48*	WG2016546
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*03/07/2023 00:16*	WG2017869

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	J4	11.3	50.0	1	03/02/2023 12:22	WG2015680
Acrolein	U	C3	2.54	50.0	1	03/04/2023 02:03	WG2016731
Acrylonitrile	U		0.671	10.0	1	03/02/2023 12:22	WG2015680
Benzene	0.268	J	0.0941	1.00	1	03/02/2023 12:22	WG2015680
Bromobenzene	U		0.118	1.00	1	03/02/2023 12:22	WG2015680
Bromodichloromethane	U		0.136	1.00	1	03/02/2023 12:22	WG2015680
Bromoform	U		0.129	1.00	1	03/02/2023 12:22	WG2015680
Bromomethane	U		0.605	5.00	1	03/02/2023 12:22	WG2015680
n-Butylbenzene	U		0.157	1.00	1	03/02/2023 12:22	WG2015680
sec-Butylbenzene	U		0.125	1.00	1	03/02/2023 12:22	WG2015680
tert-Butylbenzene	U		0.127	1.00	1	03/02/2023 12:22	WG2015680
Carbon disulfide	U		0.0962	1.00	1	03/02/2023 12:22	WG2015680
Carbon tetrachloride	U		0.128	1.00	1	03/02/2023 12:22	WG2015680
Chlorobenzene	U		0.116	1.00	1	03/02/2023 12:22	WG2015680
Chlorodibromomethane	U		0.140	1.00	1	03/02/2023 12:22	WG2015680
Chloroethane	0.211	J	0.192	5.00	1	03/02/2023 12:22	WG2015680
Chloroform	U		0.111	5.00	1	03/02/2023 12:22	WG2015680
Chloromethane	U		0.960	2.50	1	03/02/2023 12:22	WG2015680
2-Chlorotoluene	U		0.106	1.00	1	03/02/2023 12:22	WG2015680
4-Chlorotoluene	U		0.114	1.00	1	03/02/2023 12:22	WG2015680
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/02/2023 12:22	WG2015680
1,2-Dibromoethane	U		0.126	1.00	1	03/02/2023 12:22	WG2015680
Dibromomethane	U		0.122	1.00	1	03/02/2023 12:22	WG2015680
1,2-Dichlorobenzene	U		0.107	1.00	1	03/02/2023 12:22	WG2015680
1,3-Dichlorobenzene	U		0.110	1.00	1	03/02/2023 12:22	WG2015680
1,4-Dichlorobenzene	U		0.120	1.00	1	03/02/2023 12:22	WG2015680
Dichlorodifluoromethane	U		0.374	5.00	1	03/02/2023 12:22	WG2015680
1,1-Dichloroethane	U		0.100	1.00	1	03/02/2023 12:22	WG2015680
1,2-Dichloroethane	U		0.0819	1.00	1	03/02/2023 12:22	WG2015680
1,1-Dichloroethene	U		0.188	1.00	1	03/02/2023 12:22	WG2015680
cis-1,2-Dichloroethene	7.43		0.126	1.00	1	03/02/2023 12:22	WG2015680
trans-1,2-Dichloroethene	2.04		0.149	1.00	1	03/02/2023 12:22	WG2015680
1,2-Dichloropropane	U		0.149	1.00	1	03/02/2023 12:22	WG2015680
1,1-Dichloropropene	U		0.142	1.00	1	03/02/2023 12:22	WG2015680
1,3-Dichloropropane	U		0.110	1.00	1	03/02/2023 12:22	WG2015680
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/02/2023 12:22	WG2015680
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/02/2023 12:22	WG2015680
2,2-Dichloropropane	U		0.161	1.00	1	03/02/2023 12:22	WG2015680
Di-isopropyl ether	U	J4	0.105	1.00	1	03/02/2023 12:22	WG2015680
Ethylbenzene	U		0.137	1.00	1	03/02/2023 12:22	WG2015680
Hexachloro-1,3-butadiene	U	C3	0.337	1.00	1	03/02/2023 12:22	WG2015680
Isopropylbenzene	U		0.105	1.00	1	03/02/2023 12:22	WG2015680
p-Isopropyltoluene	U		0.120	1.00	1	03/02/2023 12:22	WG2015680
2-Butanone (MEK)	U	J4	1.19	10.0	1	03/02/2023 12:22	WG2015680
Methylene Chloride	U		0.430	5.00	1	03/02/2023 12:22	WG2015680
4-Methyl-2-pentanone (MIBK)	U	J4	0.478	10.0	1	03/02/2023 12:22	WG2015680
Methyl tert-butyl ether	U		0.101	1.00	1	03/02/2023 12:22	WG2015680
Naphthalene	U	C3	1.00	5.00	1	03/02/2023 12:22	WG2015680
n-Propylbenzene	U		0.0993	1.00	1	03/02/2023 12:22	WG2015680
Styrene	U		0.118	1.00	1	03/02/2023 12:22	WG2015680
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/02/2023 12:22	WG2015680
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/02/2023 12:22	WG2015680
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/02/2023 12:22	WG2015680
Tetrachloroethene	U		0.300	1.00	1	03/02/2023 12:22	WG2015680
Toluene	0.313	J	0.278	1.00	1	03/02/2023 12:22	WG2015680
1,2,3-Trichlorobenzene	U	C3	0.230	1.00	1	03/02/2023 12:22	WG2015680

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,4-Trichlorobenzene	U	C3	0.481	1.00	1	03/02/2023 12:22	WG2015680
1,1,1-Trichloroethane	U		0.149	1.00	1	03/02/2023 12:22	WG2015680
1,1,2-Trichloroethane	U		0.158	1.00	1	03/02/2023 12:22	WG2015680
Trichloroethene	0.275	J	0.190	1.00	1	03/02/2023 12:22	WG2015680
Trichlorofluoromethane	U		0.160	5.00	1	03/02/2023 12:22	WG2015680
1,2,3-Trichloropropane	U		0.237	2.50	1	03/02/2023 12:22	WG2015680
1,2,4-Trimethylbenzene	U		0.322	1.00	1	03/02/2023 12:22	WG2015680
1,2,3-Trimethylbenzene	U		0.104	1.00	1	03/02/2023 12:22	WG2015680
1,3,5-Trimethylbenzene	U		0.104	1.00	1	03/02/2023 12:22	WG2015680
Vinyl chloride	144		0.234	1.00	1	03/02/2023 12:22	WG2015680
Xylenes, Total	U		0.174	3.00	1	03/02/2023 12:22	WG2015680
(S) Toluene-d8	*105*			*80.0-120*		*03/02/2023 12:22*	WG2015680
(S) Toluene-d8	*101*			*80.0-120*		*03/04/2023 02:03*	WG2016731
(S) 4-Bromofluorobenzene	*91.9*			*77.0-126*		*03/02/2023 12:22*	WG2015680
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*03/04/2023 02:03*	WG2016731
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*03/02/2023 12:22*	WG2015680
(S) 1,2-Dichloroethane-d4	*92.5*			*70.0-130*		*03/04/2023 02:03*	WG2016731

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		565	2500	50	03/03/2023 21:07	WG2016546
Acrolein	U		127	2500	50	03/03/2023 21:07	WG2016546
Acrylonitrile	U		33.6	500	50	03/03/2023 21:07	WG2016546
Benzene	U		4.71	50.0	50	03/03/2023 21:07	WG2016546
Bromobenzene	U		5.90	50.0	50	03/03/2023 21:07	WG2016546
Bromodichloromethane	U		6.80	50.0	50	03/03/2023 21:07	WG2016546
Bromoform	U		6.45	50.0	50	03/03/2023 21:07	WG2016546
Bromomethane	U		30.3	250	50	03/03/2023 21:07	WG2016546
n-Butylbenzene	U		7.85	50.0	50	03/03/2023 21:07	WG2016546
sec-Butylbenzene	U		6.25	50.0	50	03/03/2023 21:07	WG2016546
tert-Butylbenzene	U		6.35	50.0	50	03/03/2023 21:07	WG2016546
Carbon disulfide	U		4.81	50.0	50	03/03/2023 21:07	WG2016546
Carbon tetrachloride	U		6.40	50.0	50	03/03/2023 21:07	WG2016546
Chlorobenzene	U		5.80	50.0	50	03/03/2023 21:07	WG2016546
Chlorodibromomethane	U		7.00	50.0	50	03/03/2023 21:07	WG2016546
Chloroethane	U		9.60	250	50	03/03/2023 21:07	WG2016546
Chloroform	U		5.55	250	50	03/03/2023 21:07	WG2016546
Chloromethane	U		48.0	125	50	03/03/2023 21:07	WG2016546
2-Chlorotoluene	U		5.30	50.0	50	03/03/2023 21:07	WG2016546
4-Chlorotoluene	U		5.70	50.0	50	03/03/2023 21:07	WG2016546
1,2-Dibromo-3-Chloropropane	U		13.8	250	50	03/03/2023 21:07	WG2016546
1,2-Dibromoethane	U		6.30	50.0	50	03/03/2023 21:07	WG2016546
Dibromomethane	U		6.10	50.0	50	03/03/2023 21:07	WG2016546
1,2-Dichlorobenzene	U		5.35	50.0	50	03/03/2023 21:07	WG2016546
1,3-Dichlorobenzene	U		5.50	50.0	50	03/03/2023 21:07	WG2016546
1,4-Dichlorobenzene	U		6.00	50.0	50	03/03/2023 21:07	WG2016546
Dichlorodifluoromethane	U		18.7	250	50	03/03/2023 21:07	WG2016546
1,1-Dichloroethane	U		5.00	50.0	50	03/03/2023 21:07	WG2016546
1,2-Dichloroethane	U		4.09	50.0	50	03/03/2023 21:07	WG2016546
1,1-Dichloroethene	U		9.40	50.0	50	03/03/2023 21:07	WG2016546
cis-1,2-Dichloroethene	3300		6.30	50.0	50	03/03/2023 21:07	WG2016546
trans-1,2-Dichloroethene	43.9	J	7.45	50.0	50	03/03/2023 21:07	WG2016546
1,2-Dichloropropane	U		7.45	50.0	50	03/03/2023 21:07	WG2016546
1,1-Dichloropropene	U		7.10	50.0	50	03/03/2023 21:07	WG2016546
1,3-Dichloropropane	U		5.50	50.0	50	03/03/2023 21:07	WG2016546
cis-1,3-Dichloropropene	U		5.55	50.0	50	03/03/2023 21:07	WG2016546
trans-1,3-Dichloropropene	U		5.90	50.0	50	03/03/2023 21:07	WG2016546
2,2-Dichloropropane	U		8.05	50.0	50	03/03/2023 21:07	WG2016546
Di-isopropyl ether	U		5.25	50.0	50	03/03/2023 21:07	WG2016546
Ethylbenzene	U		6.85	50.0	50	03/03/2023 21:07	WG2016546
Hexachloro-1,3-butadiene	U		16.9	50.0	50	03/03/2023 21:07	WG2016546
Isopropylbenzene	U		5.25	50.0	50	03/03/2023 21:07	WG2016546
p-Isopropyltoluene	U		6.00	50.0	50	03/03/2023 21:07	WG2016546
2-Butanone (MEK)	U		59.5	500	50	03/03/2023 21:07	WG2016546
Methylene Chloride	U		21.5	250	50	03/03/2023 21:07	WG2016546
4-Methyl-2-pentanone (MIBK)	U		23.9	500	50	03/03/2023 21:07	WG2016546
Methyl tert-butyl ether	U		5.05	50.0	50	03/03/2023 21:07	WG2016546
Naphthalene	U		50.0	250	50	03/03/2023 21:07	WG2016546
n-Propylbenzene	U		4.97	50.0	50	03/03/2023 21:07	WG2016546
Styrene	U		5.90	50.0	50	03/03/2023 21:07	WG2016546
1,1,1,2-Tetrachloroethane	U		7.35	50.0	50	03/03/2023 21:07	WG2016546
1,1,2,2-Tetrachloroethane	U		6.65	50.0	50	03/03/2023 21:07	WG2016546
1,1,2-Trichlorotrifluoroethane	U		9.00	50.0	50	03/03/2023 21:07	WG2016546
Tetrachloroethene	25.8	J	15.0	50.0	50	03/03/2023 21:07	WG2016546
Toluene	U		13.9	50.0	50	03/03/2023 21:07	WG2016546
1,2,3-Trichlorobenzene	U		11.5	50.0	50	03/03/2023 21:07	WG2016546

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,4-Trichlorobenzene	U		24.1	50.0	50	03/03/2023 21:07	WG2016546
1,1,1-Trichloroethane	U		7.45	50.0	50	03/03/2023 21:07	WG2016546
1,1,2-Trichloroethane	U		7.90	50.0	50	03/03/2023 21:07	WG2016546
Trichloroethene	9.70	J	9.50	50.0	50	03/03/2023 21:07	WG2016546
Trichlorofluoromethane	U		8.00	250	50	03/03/2023 21:07	WG2016546
1,2,3-Trichloropropane	U		11.9	125	50	03/03/2023 21:07	WG2016546
1,2,4-Trimethylbenzene	U		16.1	50.0	50	03/03/2023 21:07	WG2016546
1,2,3-Trimethylbenzene	U		5.20	50.0	50	03/03/2023 21:07	WG2016546
1,3,5-Trimethylbenzene	U		5.20	50.0	50	03/03/2023 21:07	WG2016546
Vinyl chloride	600		11.7	50.0	50	03/03/2023 21:07	WG2016546
Xylenes, Total	U		8.70	150	50	03/03/2023 21:07	WG2016546
(S) Toluene-d8	*103*			*80.0-120*		*03/03/2023 21:07*	WG2016546
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*03/03/2023 21:07*	WG2016546
(S) 1,2-Dichloroethane-d4	*95.2*			*70.0-130*		*03/03/2023 21:07*	WG2016546

Method Blank (MB)

(MB) R3897318-2 03/04/23 09:42

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Ethane	U		4.07	13.0
Ethene	U		4.26	13.0

L1590451-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1590451-05 03/04/23 10:22 • (DUP) R3897318-3 03/04/23 10:37

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Ethane	U	U	1	0.000		20
Ethene	U	U	1	0.000		20

L1590704-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1590704-01 03/04/23 11:14 • (DUP) R3897318-4 03/04/23 12:58

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Ethane	U	U	1	0.000		20
Ethene	U	U	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3897318-1 03/04/23 09:39 • (LCSD) R3897318-7 03/04/23 13:18

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Ethane	129	121	121	93.8	93.8	85.0-115			0.000	20
Ethene	127	122	121	96.1	95.3	85.0-115			0.823	20

L1590451-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1590451-09 03/04/23 10:54 • (MS) R3897318-5 03/04/23 13:04 • (MSD) R3897318-6 03/04/23 13:12

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Ethane	129	174	376	377	157	157	1	50.0-150	J5	J5	0.266	20
Ethene	127	825	1180	1180	280	280	1	50.0-150	V	V	0.000	20

Method Blank (MB)

(MB) R3897441-2 03/05/23 13:12

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Methane	U		2.91	10.0

L1591717-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1591717-01 03/05/23 14:26 • (DUP) R3897441-3 03/05/23 14:57

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	196	193	1	1.54		20

L1591717-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1591717-06 03/05/23 15:10 • (DUP) R3897441-4 03/05/23 16:06

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	U	U	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3897441-1 03/05/23 13:07 • (LCSD) R3897441-5 03/05/23 16:12

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	67.8	71.3	69.2	105	102	85.0-115			2.99	20

Method Blank (MB)

(MB) R3897094-2 03/02/23 09:27

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		11.3	50.0
Acrylonitrile	U		0.671	10.0
Benzene	U		0.0941	1.00
Bromobenzene	U		0.118	1.00
Bromodichloromethane	U		0.136	1.00
Bromoform	U		0.129	1.00
Bromomethane	U		0.605	5.00
n-Butylbenzene	U		0.157	1.00
sec-Butylbenzene	U		0.125	1.00
tert-Butylbenzene	U		0.127	1.00
Carbon disulfide	U		0.0962	1.00
Carbon tetrachloride	U		0.128	1.00
Chlorobenzene	U		0.116	1.00
Chlorodibromomethane	U		0.140	1.00
Chloroethane	U		0.192	5.00
Chloroform	U		0.111	5.00
Chloromethane	U		0.960	2.50
2-Chlorotoluene	U		0.106	1.00
4-Chlorotoluene	U		0.114	1.00
1,2-Dibromo-3-Chloropropane	U		0.276	5.00
1,2-Dibromoethane	U		0.126	1.00
Dibromomethane	U		0.122	1.00
1,2-Dichlorobenzene	U		0.107	1.00
1,3-Dichlorobenzene	U		0.110	1.00
1,4-Dichlorobenzene	U		0.120	1.00
Dichlorodifluoromethane	U		0.374	5.00
1,1-Dichloroethane	U		0.100	1.00
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
1,1-Dichloropropene	U		0.142	1.00
1,3-Dichloropropane	U		0.110	1.00
cis-1,3-Dichloropropene	U		0.111	1.00
trans-1,3-Dichloropropene	U		0.118	1.00
2,2-Dichloropropane	U		0.161	1.00
Di-isopropyl ether	U		0.105	1.00
Ethylbenzene	U		0.137	1.00
Hexachloro-1,3-butadiene	U		0.337	1.00

Method Blank (MB)

(MB) R3897094-2 03/02/23 09:27

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Isopropylbenzene	U		0.105	1.00
p-Isopropyltoluene	U		0.120	1.00
2-Butanone (MEK)	U		1.19	10.0
Methylene Chloride	U		0.430	5.00
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0
Methyl tert-butyl ether	U		0.101	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.0993	1.00
Styrene	U		0.118	1.00
1,1,1,2-Tetrachloroethane	U		0.147	1.00
1,1,2,2-Tetrachloroethane	U		0.133	1.00
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
Tetrachloroethene	U		0.300	1.00
Toluene	U		0.278	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.481	1.00
1,1,1-Trichloroethane	U		0.149	1.00
1,1,2-Trichloroethane	U		0.158	1.00
Trichloroethene	U		0.190	1.00
Trichlorofluoromethane	U		0.160	5.00
1,2,3-Trichloropropane	U		0.237	2.50
1,2,4-Trimethylbenzene	U		0.322	1.00
1,2,3-Trimethylbenzene	U		0.104	1.00
1,3,5-Trimethylbenzene	U		0.104	1.00
Vinyl chloride	U		0.234	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	*105*			*80.0-120*
(S) 4-Bromofluorobenzene	*91.1*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*100*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3897094-1 03/02/23 08:48

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	25.0	41.7	167	19.0-160	J4
Acrylonitrile	25.0	37.0	148	55.0-149	
Benzene	5.00	4.99	99.8	70.0-123	
Bromobenzene	5.00	5.27	105	73.0-121	

Laboratory Control Sample (LCS)

(LCS) R3897094-1 03/02/23 08:48

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromodichloromethane	5.00	5.27	105	75.0-120	
Bromoform	5.00	4.79	95.8	68.0-132	
Bromomethane	5.00	4.45	89.0	10.0-160	
n-Butylbenzene	5.00	4.85	97.0	73.0-125	
sec-Butylbenzene	5.00	4.94	98.8	75.0-125	
tert-Butylbenzene	5.00	4.96	99.2	76.0-124	
Carbon disulfide	5.00	4.56	91.2	61.0-128	
Carbon tetrachloride	5.00	4.67	93.4	68.0-126	
Chlorobenzene	5.00	4.81	96.2	80.0-121	
Chlorodibromomethane	5.00	5.34	107	77.0-125	
Chloroethane	5.00	4.51	90.2	47.0-150	
Chloroform	5.00	4.78	95.6	73.0-120	
Chloromethane	5.00	6.83	137	41.0-142	
2-Chlorotoluene	5.00	5.22	104	76.0-123	
4-Chlorotoluene	5.00	5.06	101	75.0-122	
1,2-Dibromo-3-Chloropropane	5.00	5.43	109	58.0-134	
1,2-Dibromoethane	5.00	4.90	98.0	80.0-122	
Dibromomethane	5.00	4.98	99.6	80.0-120	
1,2-Dichlorobenzene	5.00	5.02	100	79.0-121	
1,3-Dichlorobenzene	5.00	4.98	99.6	79.0-120	
1,4-Dichlorobenzene	5.00	5.06	101	79.0-120	
Dichlorodifluoromethane	5.00	4.46	89.2	51.0-149	
1,1-Dichloroethane	5.00	5.38	108	70.0-126	
1,2-Dichloroethane	5.00	5.40	108	70.0-128	
1,1-Dichloroethene	5.00	4.24	84.8	71.0-124	
cis-1,2-Dichloroethene	5.00	4.69	93.8	73.0-120	
trans-1,2-Dichloroethene	5.00	4.57	91.4	73.0-120	
1,2-Dichloropropane	5.00	6.09	122	77.0-125	
1,1-Dichloropropene	5.00	4.94	98.8	74.0-126	
1,3-Dichloropropane	5.00	5.35	107	80.0-120	
cis-1,3-Dichloropropene	5.00	5.29	106	80.0-123	
trans-1,3-Dichloropropene	5.00	4.83	96.6	78.0-124	
2,2-Dichloropropane	5.00	4.98	99.6	58.0-130	
Di-isopropyl ether	5.00	7.07	141	58.0-138	J4
Ethylbenzene	5.00	4.45	89.0	79.0-123	
Hexachloro-1,3-butadiene	5.00	3.88	77.6	54.0-138	
Isopropylbenzene	5.00	4.13	82.6	76.0-127	
p-Isopropyltoluene	5.00	4.94	98.8	76.0-125	
2-Butanone (MEK)	25.0	44.5	178	44.0-160	J4
Methylene Chloride	5.00	4.77	95.4	67.0-120	

Laboratory Control Sample (LCS)

(LCS) R3897094-1 03/02/23 08:48

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
4-Methyl-2-pentanone (MIBK)	25.0	38.6	154	68.0-142	J4
Methyl tert-butyl ether	5.00	5.02	100	68.0-125	
Naphthalene	5.00	3.80	76.0	54.0-135	
n-Propylbenzene	5.00	5.18	104	77.0-124	
Styrene	5.00	4.20	84.0	73.0-130	
1,1,1,2-Tetrachloroethane	5.00	5.02	100	75.0-125	
1,1,2,2-Tetrachloroethane	5.00	5.77	115	65.0-130	
1,1,2-Trichlorotrifluoroethane	5.00	4.24	84.8	69.0-132	
Tetrachloroethene	5.00	4.64	92.8	72.0-132	
Toluene	5.00	4.96	99.2	79.0-120	
1,2,3-Trichlorobenzene	5.00	3.63	72.6	50.0-138	
1,2,4-Trichlorobenzene	5.00	3.74	74.8	57.0-137	
1,1,1-Trichloroethane	5.00	4.58	91.6	73.0-124	
1,1,2-Trichloroethane	5.00	4.98	99.6	80.0-120	
Trichloroethene	5.00	4.88	97.6	78.0-124	
Trichlorofluoromethane	5.00	4.38	87.6	59.0-147	
1,2,3-Trichloropropane	5.00	5.88	118	73.0-130	
1,2,4-Trimethylbenzene	5.00	4.91	98.2	76.0-121	
1,2,3-Trimethylbenzene	5.00	4.84	96.8	77.0-120	
1,3,5-Trimethylbenzene	5.00	4.93	98.6	76.0-122	
Vinyl chloride	5.00	5.08	102	67.0-131	
Xylenes, Total	15.0	13.3	88.7	79.0-123	
(S) Toluene-d8			*100*	*80.0-120*	
(S) 4-Bromofluorobenzene			*92.1*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*101*	*70.0-130*	

Method Blank (MB)

(MB) R3897092-3 03/03/23 13:49

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		11.3	50.0
Acrolein	U		2.54	50.0
Acrylonitrile	U		0.671	10.0
Benzene	U		0.0941	1.00
Bromobenzene	U		0.118	1.00
Bromodichloromethane	U		0.136	1.00
Bromoform	U		0.129	1.00
Bromomethane	U		0.605	5.00
n-Butylbenzene	U		0.157	1.00
sec-Butylbenzene	U		0.125	1.00
tert-Butylbenzene	U		0.127	1.00
Carbon disulfide	U		0.0962	1.00
Carbon tetrachloride	U		0.128	1.00
Chlorobenzene	U		0.116	1.00
Chlorodibromomethane	U		0.140	1.00
Chloroethane	U		0.192	5.00
Chloroform	U		0.111	5.00
Chloromethane	U		0.960	2.50
2-Chlorotoluene	U		0.106	1.00
4-Chlorotoluene	U		0.114	1.00
1,2-Dibromo-3-Chloropropane	U		0.276	5.00
1,2-Dibromoethane	U		0.126	1.00
Dibromomethane	U		0.122	1.00
1,2-Dichlorobenzene	U		0.107	1.00
1,3-Dichlorobenzene	U		0.110	1.00
1,4-Dichlorobenzene	U		0.120	1.00
Dichlorodifluoromethane	U		0.374	5.00
1,1-Dichloroethane	U		0.100	1.00
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
1,1-Dichloropropene	U		0.142	1.00
1,3-Dichloropropane	U		0.110	1.00
cis-1,3-Dichloropropene	U		0.111	1.00
trans-1,3-Dichloropropene	U		0.118	1.00
2,2-Dichloropropane	U		0.161	1.00
Di-isopropyl ether	U		0.105	1.00
Ethylbenzene	U		0.137	1.00

Method Blank (MB)

(MB) R3897092-3 03/03/23 13:49

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Hexachloro-1,3-butadiene	U		0.337	1.00
Isopropylbenzene	U		0.105	1.00
p-Isopropyltoluene	U		0.120	1.00
2-Butanone (MEK)	U		1.19	10.0
Methylene Chloride	U		0.430	5.00
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0
Methyl tert-butyl ether	U		0.101	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.0993	1.00
Styrene	U		0.118	1.00
1,1,1,2-Tetrachloroethane	U		0.147	1.00
1,1,2,2-Tetrachloroethane	U		0.133	1.00
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
Tetrachloroethene	U		0.300	1.00
Toluene	U		0.278	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.481	1.00
1,1,1-Trichloroethane	U		0.149	1.00
1,1,2-Trichloroethane	U		0.158	1.00
Trichloroethene	U		0.190	1.00
Trichlorofluoromethane	U		0.160	5.00
1,2,3-Trichloropropane	U		0.237	2.50
1,2,4-Trimethylbenzene	U		0.322	1.00
1,2,3-Trimethylbenzene	U		0.104	1.00
1,3,5-Trimethylbenzene	U		0.104	1.00
Vinyl chloride	U		0.234	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	*104*			*80.0-120*
(S) 4-Bromofluorobenzene	*103*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*91.1*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3897092-1 03/03/23 12:10 • (LCSD) R3897092-2 03/03/23 12:30

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	21.9	21.8	87.6	87.2	19.0-160			0.458	27
Acrolein	25.0	25.7	25.2	103	101	10.0-160			1.96	26
Acrylonitrile	25.0	25.3	26.3	101	105	55.0-149			3.88	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3897092-1 03/03/23 12:10 • (LCSD) R3897092-2 03/03/23 12:30

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	5.00	5.44	5.41	109	108	70.0-123			0.553	20
Bromobenzene	5.00	5.51	5.24	110	105	73.0-121			5.02	20
Bromodichloromethane	5.00	5.07	5.14	101	103	75.0-120			1.37	20
Bromoform	5.00	5.41	5.38	108	108	68.0-132			0.556	20
Bromomethane	5.00	5.68	6.00	114	120	10.0-160			5.48	25
n-Butylbenzene	5.00	5.85	5.83	117	117	73.0-125			0.342	20
sec-Butylbenzene	5.00	5.75	5.47	115	109	75.0-125			4.99	20
tert-Butylbenzene	5.00	5.72	5.48	114	110	76.0-124			4.29	20
Carbon disulfide	5.00	6.17	5.89	123	118	61.0-128			4.64	20
Carbon tetrachloride	5.00	6.11	5.76	122	115	68.0-126			5.90	20
Chlorobenzene	5.00	5.26	5.31	105	106	80.0-121			0.946	20
Chlorodibromomethane	5.00	5.56	5.47	111	109	77.0-125			1.63	20
Chloroethane	5.00	6.03	5.94	121	119	47.0-150			1.50	20
Chloroform	5.00	5.60	5.54	112	111	73.0-120			1.08	20
Chloromethane	5.00	6.35	5.90	127	118	41.0-142			7.35	20
2-Chlorotoluene	5.00	5.71	5.47	114	109	76.0-123			4.29	20
4-Chlorotoluene	5.00	5.32	5.43	106	109	75.0-122			2.05	20
1,2-Dibromo-3-Chloropropane	5.00	5.16	5.03	103	101	58.0-134			2.55	20
1,2-Dibromoethane	5.00	5.06	5.04	101	101	80.0-122			0.396	20
Dibromomethane	5.00	5.64	5.43	113	109	80.0-120			3.79	20
1,2-Dichlorobenzene	5.00	5.72	5.63	114	113	79.0-121			1.59	20
1,3-Dichlorobenzene	5.00	5.69	5.59	114	112	79.0-120			1.77	20
1,4-Dichlorobenzene	5.00	5.49	5.39	110	108	79.0-120			1.84	20
Dichlorodifluoromethane	5.00	6.15	6.29	123	126	51.0-149			2.25	20
1,1-Dichloroethane	5.00	5.61	5.53	112	111	70.0-126			1.44	20
1,2-Dichloroethane	5.00	5.23	5.29	105	106	70.0-128			1.14	20
1,1-Dichloroethene	5.00	5.52	5.60	110	112	71.0-124			1.44	20
cis-1,2-Dichloroethene	5.00	5.82	5.77	116	115	73.0-120			0.863	20
trans-1,2-Dichloroethene	5.00	5.42	5.27	108	105	73.0-120			2.81	20
1,2-Dichloropropane	5.00	5.20	5.24	104	105	77.0-125			0.766	20
1,1-Dichloropropene	5.00	5.82	5.52	116	110	74.0-126			5.29	20
1,3-Dichloropropane	5.00	5.39	5.18	108	104	80.0-120			3.97	20
cis-1,3-Dichloropropene	5.00	5.49	5.66	110	113	80.0-123			3.05	20
trans-1,3-Dichloropropene	5.00	5.26	5.05	105	101	78.0-124			4.07	20
2,2-Dichloropropane	5.00	6.04	5.87	121	117	58.0-130			2.85	20
Di-isopropyl ether	5.00	5.50	5.45	110	109	58.0-138			0.913	20
Ethylbenzene	5.00	5.37	5.34	107	107	79.0-123			0.560	20
Hexachloro-1,3-butadiene	5.00	6.02	5.64	120	113	54.0-138			6.52	20
Isopropylbenzene	5.00	6.31	5.92	126	118	76.0-127			6.38	20
p-Isopropyltoluene	5.00	5.75	5.86	115	117	76.0-125			1.89	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3897092-1 03/03/23 12:10 • (LCSD) R3897092-2 03/03/23 12:30

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
2-Butanone (MEK)	25.0	25.7	22.6	103	90.4	44.0-160			12.8	20
Methylene Chloride	5.00	5.49	5.45	110	109	67.0-120			0.731	20
4-Methyl-2-pentanone (MIBK)	25.0	25.7	25.8	103	103	68.0-142			0.388	20
Methyl tert-butyl ether	5.00	5.29	5.11	106	102	68.0-125			3.46	20
Naphthalene	5.00	5.45	5.56	109	111	54.0-135			2.00	20
n-Propylbenzene	5.00	5.99	5.38	120	108	77.0-124			10.7	20
Styrene	5.00	5.35	4.98	107	99.6	73.0-130			7.16	20
1,1,1,2-Tetrachloroethane	5.00	5.39	5.35	108	107	75.0-125			0.745	20
1,1,2,2-Tetrachloroethane	5.00	5.22	5.21	104	104	65.0-130			0.192	20
1,1,2-Trichlorotrifluoroethane	5.00	6.20	6.12	124	122	69.0-132			1.30	20
Tetrachloroethene	5.00	5.79	5.52	116	110	72.0-132			4.77	20
Toluene	5.00	5.52	5.38	110	108	79.0-120			2.57	20
1,2,3-Trichlorobenzene	5.00	5.02	5.32	100	106	50.0-138			5.80	20
1,2,4-Trichlorobenzene	5.00	5.55	5.61	111	112	57.0-137			1.08	20
1,1,1-Trichloroethane	5.00	6.00	5.62	120	112	73.0-124			6.54	20
1,1,2-Trichloroethane	5.00	5.29	5.15	106	103	80.0-120			2.68	20
Trichloroethene	5.00	5.64	5.64	113	113	78.0-124			0.000	20
Trichlorofluoromethane	5.00	5.67	5.69	113	114	59.0-147			0.352	20
1,2,3-Trichloropropane	5.00	4.85	5.01	97.0	100	73.0-130			3.25	20
1,2,4-Trimethylbenzene	5.00	5.56	5.50	111	110	76.0-121			1.08	20
1,2,3-Trimethylbenzene	5.00	5.48	5.41	110	108	77.0-120			1.29	20
1,3,5-Trimethylbenzene	5.00	5.60	5.51	112	110	76.0-122			1.62	20
Vinyl chloride	5.00	5.86	5.60	117	112	67.0-131			4.54	20
Xylenes, Total	15.0	17.4	16.4	116	109	79.0-123			5.92	20
(S) Toluene-d8				*101*	*101*	*80.0-120*				
(S) 4-Bromofluorobenzene				*99.9*	*100*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*94.5*	*94.3*	*70.0-130*				

L1590549-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1590549-02 03/03/23 20:28 • (MS) R3897092-4 03/03/23 21:27 • (MSD) R3897092-5 03/03/23 21:47

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	1250	U	1330	1440	106	115	50	10.0-160			7.94	35
Acrolein	1250	U	2040	2210	163	177	50	10.0-160	J5	J5	8.00	39
Acrylonitrile	1250	U	1630	1760	130	141	50	21.0-160			7.67	32
Benzene	250	U	272	167	109	66.8	50	17.0-158		J3	47.8	27
Bromobenzene	250	U	276	199	110	79.6	50	30.0-149		J3	32.4	28
Bromodichloromethane	250	U	261	191	104	76.4	50	31.0-150		J3	31.0	27

L1590549-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1590549-02 03/03/23 20:28 • (MS) R3897092-4 03/03/23 21:27 • (MSD) R3897092-5 03/03/23 21:47

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Bromoform	250	U	244	241	97.6	96.4	50	29.0-150			1.24	29
Bromomethane	250	U	220	139	88.0	55.6	50	10.0-160		J3	45.1	38
n-Butylbenzene	250	22.5	345	201	129	71.4	50	31.0-150		J3	52.7	30
sec-Butylbenzene	250	16.8	327	178	124	64.5	50	33.0-155		J3	59.0	29
tert-Butylbenzene	250	U	308	161	123	64.4	50	34.0-153		J3	62.7	28
Carbon disulfide	250	U	224	117	89.6	46.8	50	10.0-156		J3	62.8	28
Carbon tetrachloride	250	U	303	161	121	64.4	50	23.0-159		J3	61.2	28
Chlorobenzene	250	U	251	191	100	76.4	50	33.0-152		J3	27.1	27
Chlorodibromomethane	250	U	256	229	102	91.6	50	37.0-149			11.1	27
Chloroethane	250	U	249	136	99.6	54.4	50	10.0-160		J3	58.7	30
Chloroform	250	U	315	213	126	85.2	50	29.0-154		J3	38.6	28
Chloromethane	250	U	237	152	94.8	60.8	50	10.0-160		J3	43.7	29
2-Chlorotoluene	250	U	316	177	126	70.8	50	32.0-153		J3	56.4	28
4-Chlorotoluene	250	U	282	188	113	75.2	50	32.0-150		J3	40.0	28
1,2-Dibromo-3-Chloropropane	250	U	280	274	112	110	50	22.0-151			2.17	34
1,2-Dibromoethane	250	U	245	229	98.0	91.6	50	34.0-147			6.75	27
Dibromomethane	250	U	241	242	96.4	96.8	50	30.0-151			0.414	27
1,2-Dichlorobenzene	250	U	298	226	119	90.4	50	34.0-149			27.5	28
1,3-Dichlorobenzene	250	U	281	198	112	79.2	50	36.0-146		J3	34.7	27
1,4-Dichlorobenzene	250	U	278	201	111	80.4	50	35.0-142		J3	32.2	27
Dichlorodifluoromethane	250	U	351	160	140	64.0	50	10.0-160		J3	74.8	29
1,1-Dichloroethane	250	U	282	184	113	73.6	50	25.0-158		J3	42.1	27
1,2-Dichloroethane	250	U	254	219	102	87.6	50	29.0-151			14.8	27
1,1-Dichloroethene	250	U	282	142	113	56.8	50	11.0-160		J3	66.0	29
cis-1,2-Dichloroethene	250	U	296	209	118	83.6	50	10.0-160		J3	34.5	27
trans-1,2-Dichloroethene	250	U	245	152	98.0	60.8	50	17.0-153		J3	46.9	27
1,2-Dichloropropane	250	U	258	201	103	80.4	50	30.0-156			24.8	27
1,1-Dichloropropene	250	U	292	149	117	59.6	50	25.0-158		J3	64.9	27
1,3-Dichloropropane	250	U	266	235	106	94.0	50	38.0-147			12.4	27
cis-1,3-Dichloropropene	250	U	253	198	101	79.2	50	34.0-149			24.4	28
trans-1,3-Dichloropropene	250	U	230	204	92.0	81.6	50	32.0-149			12.0	28
2,2-Dichloropropane	250	U	312	181	125	72.4	50	24.0-152		J3	53.1	29
Di-isopropyl ether	250	U	277	223	111	89.2	50	21.0-160			21.6	28
Ethylbenzene	250	340	569	499	91.6	63.6	50	30.0-155			13.1	27
Hexachloro-1,3-butadiene	250	U	301	153	120	61.2	50	20.0-154		J3	65.2	34
Isopropylbenzene	250	125	426	305	120	72.0	50	28.0-157		J3	33.1	27
p-Isopropyltoluene	250	14.1	349	210	134	78.4	50	30.0-154		J3	49.7	29
2-Butanone (MEK)	1250	U	1350	1360	108	109	50	10.0-160			0.738	32
Methylene Chloride	250	U	249	199	99.6	79.6	50	23.0-144			22.3	28
4-Methyl-2-pentanone (MIBK)	1250	U	1360	1460	109	117	50	29.0-160			7.09	29

L1590549-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1590549-02 03/03/23 20:28 • (MS) R3897092-4 03/03/23 21:27 • (MSD) R3897092-5 03/03/23 21:47

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Methyl tert-butyl ether	250	U	254	243	102	97.2	50	28.0-150			4.43	29
Naphthalene	250	531	580	552	19.6	8.40	50	12.0-156		J6	4.95	35
n-Propylbenzene	250	283	597	455	126	68.8	50	31.0-154			27.0	28
Styrene	250	U	268	199	107	79.6	50	33.0-155		J3	29.6	28
1,1,1,2-Tetrachloroethane	250	U	277	224	111	89.6	50	36.0-151			21.2	29
1,1,2,2-Tetrachloroethane	250	U	302	277	121	111	50	33.0-150			8.64	28
1,1,2-Trichlorotrifluoroethane	250	U	363	165	145	66.0	50	23.0-160		J3	75.0	30
Tetrachloroethene	250	U	266	133	106	53.2	50	10.0-160		J3	66.7	27
Toluene	250	U	258	170	103	68.0	50	26.0-154		J3	41.1	28
1,2,3-Trichlorobenzene	250	U	278	226	111	90.4	50	17.0-150			20.6	36
1,2,4-Trichlorobenzene	250	U	281	226	112	90.4	50	24.0-150			21.7	33
1,1,1-Trichloroethane	250	U	286	159	114	63.6	50	23.0-160		J3	57.1	28
1,1,2-Trichloroethane	250	U	270	251	108	100	50	35.0-147			7.29	27
Trichloroethene	250	U	267	144	107	57.6	50	10.0-160		J3	59.9	25
Trichlorofluoromethane	250	U	309	153	124	61.2	50	17.0-160		J3	67.5	31
1,2,3-Trichloropropane	250	U	296	280	118	112	50	34.0-151			5.56	29
1,2,4-Trimethylbenzene	250	960	1260	1150	120	76.0	50	26.0-154			9.13	27
1,2,3-Trimethylbenzene	250	264	593	509	132	98.0	50	32.0-149			15.2	28
1,3,5-Trimethylbenzene	250	299	614	493	126	77.6	50	28.0-153			21.9	27
Vinyl chloride	250	U	252	130	101	52.0	50	10.0-160		J3	63.9	27
Xylenes, Total	750	805	1700	1310	119	67.3	50	29.0-154			25.9	28
(S) Toluene-d8					*102*	*103*		*80.0-120*				
(S) 4-Bromofluorobenzene					*96.1*	*105*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*95.6*	*97.5*		*70.0-130*				

Method Blank (MB)

(MB) R3898096-3 03/03/23 21:14

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		11.3	50.0
Acrolein	U		2.54	50.0
Acrylonitrile	U		0.671	10.0
Benzene	U		0.0941	1.00
Bromobenzene	U		0.118	1.00
Bromodichloromethane	U		0.136	1.00
Bromoform	U		0.129	1.00
Bromomethane	U		0.605	5.00
n-Butylbenzene	U		0.157	1.00
sec-Butylbenzene	U		0.125	1.00
tert-Butylbenzene	U		0.127	1.00
Carbon disulfide	U		0.0962	1.00
Carbon tetrachloride	U		0.128	1.00
Chlorobenzene	U		0.116	1.00
Chlorodibromomethane	U		0.140	1.00
Chloroethane	U		0.192	5.00
Chloroform	U		0.111	5.00
Chloromethane	U		0.960	2.50
2-Chlorotoluene	U		0.106	1.00
4-Chlorotoluene	U		0.114	1.00
1,2-Dibromo-3-Chloropropane	U		0.276	5.00
1,2-Dibromoethane	U		0.126	1.00
Dibromomethane	U		0.122	1.00
1,2-Dichlorobenzene	U		0.107	1.00
1,3-Dichlorobenzene	U		0.110	1.00
1,4-Dichlorobenzene	U		0.120	1.00
Dichlorodifluoromethane	U		0.374	5.00
1,1-Dichloroethane	U		0.100	1.00
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
1,1-Dichloropropene	U		0.142	1.00
1,3-Dichloropropane	U		0.110	1.00
cis-1,3-Dichloropropene	U		0.111	1.00
trans-1,3-Dichloropropene	U		0.118	1.00
2,2-Dichloropropane	U		0.161	1.00
Di-isopropyl ether	U		0.105	1.00
Ethylbenzene	U		0.137	1.00

Method Blank (MB)

(MB) R3898096-3 03/03/23 21:14

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Hexachloro-1,3-butadiene	U		0.337	1.00
Isopropylbenzene	U		0.105	1.00
p-Isopropyltoluene	U		0.120	1.00
2-Butanone (MEK)	U		1.19	10.0
Methylene Chloride	U		0.430	5.00
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0
Methyl tert-butyl ether	U		0.101	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.0993	1.00
Styrene	U		0.118	1.00
1,1,1,2-Tetrachloroethane	U		0.147	1.00
1,1,2,2-Tetrachloroethane	U		0.133	1.00
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
Tetrachloroethene	U		0.300	1.00
Toluene	U		0.278	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.481	1.00
1,1,1-Trichloroethane	U		0.149	1.00
1,1,2-Trichloroethane	U		0.158	1.00
Trichloroethene	U		0.190	1.00
Trichlorofluoromethane	U		0.160	5.00
1,2,3-Trichloropropane	U		0.237	2.50
1,2,4-Trimethylbenzene	U		0.322	1.00
1,2,3-Trimethylbenzene	U		0.104	1.00
1,3,5-Trimethylbenzene	U		0.104	1.00
Vinyl chloride	U		0.234	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	*99.5*			*80.0-120*
(S) 4-Bromofluorobenzene	*107*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*91.0*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3898096-1 03/03/23 19:38 • (LCSD) R3898096-2 03/03/23 20:36

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	21.3	23.0	85.2	92.0	19.0-160			7.67	27
Acrolein	25.0	11.5	13.1	46.0	52.4	10.0-160			13.0	26
Acrylonitrile	25.0	20.9	23.1	83.6	92.4	55.0-149			10.0	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3898096-1 03/03/23 19:38 • (LCSD) R3898096-2 03/03/23 20:36

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	5.00	4.65	5.02	93.0	100	70.0-123			7.65	20
Bromobenzene	5.00	4.09	4.44	81.8	88.8	73.0-121			8.21	20
Bromodichloromethane	5.00	4.41	4.91	88.2	98.2	75.0-120			10.7	20
Bromoform	5.00	4.63	4.72	92.6	94.4	68.0-132			1.93	20
Bromomethane	5.00	4.22	4.38	84.4	87.6	10.0-160			3.72	25
n-Butylbenzene	5.00	4.75	5.03	95.0	101	73.0-125			5.73	20
sec-Butylbenzene	5.00	4.69	4.87	93.8	97.4	75.0-125			3.77	20
tert-Butylbenzene	5.00	4.49	4.86	89.8	97.2	76.0-124			7.91	20
Carbon disulfide	5.00	4.39	4.69	87.8	93.8	61.0-128			6.61	20
Carbon tetrachloride	5.00	5.04	5.34	101	107	68.0-126			5.78	20
Chlorobenzene	5.00	4.53	4.87	90.6	97.4	80.0-121			7.23	20
Chlorodibromomethane	5.00	4.52	4.87	90.4	97.4	77.0-125			7.45	20
Chloroethane	5.00	4.56	5.00	91.2	100	47.0-150			9.21	20
Chloroform	5.00	4.28	4.76	85.6	95.2	73.0-120			10.6	20
Chloromethane	5.00	4.73	5.22	94.6	104	41.0-142			9.85	20
2-Chlorotoluene	5.00	4.66	4.92	93.2	98.4	76.0-123			5.43	20
4-Chlorotoluene	5.00	4.46	4.66	89.2	93.2	75.0-122			4.39	20
1,2-Dibromo-3-Chloropropane	5.00	4.58	4.78	91.6	95.6	58.0-134			4.27	20
1,2-Dibromoethane	5.00	4.47	4.74	89.4	94.8	80.0-122			5.86	20
Dibromomethane	5.00	4.15	4.59	83.0	91.8	80.0-120			10.1	20
1,2-Dichlorobenzene	5.00	4.57	4.85	91.4	97.0	79.0-121			5.94	20
1,3-Dichlorobenzene	5.00	4.40	4.78	88.0	95.6	79.0-120			8.28	20
1,4-Dichlorobenzene	5.00	4.42	4.83	88.4	96.6	79.0-120			8.86	20
Dichlorodifluoromethane	5.00	6.44	6.15	129	123	51.0-149			4.61	20
1,1-Dichloroethane	5.00	4.23	4.57	84.6	91.4	70.0-126			7.73	20
1,2-Dichloroethane	5.00	4.21	4.83	84.2	96.6	70.0-128			13.7	20
1,1-Dichloroethene	5.00	4.63	4.87	92.6	97.4	71.0-124			5.05	20
cis-1,2-Dichloroethene	5.00	4.20	4.59	84.0	91.8	73.0-120			8.87	20
trans-1,2-Dichloroethene	5.00	4.43	4.61	88.6	92.2	73.0-120			3.98	20
1,2-Dichloropropane	5.00	4.50	4.86	90.0	97.2	77.0-125			7.69	20
1,1-Dichloropropene	5.00	4.79	5.11	95.8	102	74.0-126			6.46	20
1,3-Dichloropropane	5.00	4.54	4.99	90.8	99.8	80.0-120			9.44	20
cis-1,3-Dichloropropene	5.00	4.56	5.22	91.2	104	80.0-123			13.5	20
trans-1,3-Dichloropropene	5.00	4.53	5.17	90.6	103	78.0-124			13.2	20
2,2-Dichloropropane	5.00	4.96	5.14	99.2	103	58.0-130			3.56	20
Di-isopropyl ether	5.00	4.24	4.70	84.8	94.0	58.0-138			10.3	20
Ethylbenzene	5.00	4.44	4.93	88.8	98.6	79.0-123			10.5	20
Hexachloro-1,3-butadiene	5.00	5.80	5.82	116	116	54.0-138			0.344	20
Isopropylbenzene	5.00	4.81	5.01	96.2	100	76.0-127			4.07	20
p-Isopropyltoluene	5.00	4.58	4.85	91.6	97.0	76.0-125			5.73	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3898096-1 03/03/23 19:38 • (LCSD) R3898096-2 03/03/23 20:36

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
2-Butanone (MEK)	25.0	21.0	23.2	84.0	92.8	44.0-160			9.95	20
Methylene Chloride	5.00	4.07	4.47	81.4	89.4	67.0-120			9.37	20
4-Methyl-2-pentanone (MIBK)	25.0	22.5	25.4	90.0	102	68.0-142			12.1	20
Methyl tert-butyl ether	5.00	4.32	4.58	86.4	91.6	68.0-125			5.84	20
Naphthalene	5.00	4.87	4.70	97.4	94.0	54.0-135			3.55	20
n-Propylbenzene	5.00	4.55	4.97	91.0	99.4	77.0-124			8.82	20
Styrene	5.00	4.45	4.74	89.0	94.8	73.0-130			6.31	20
1,1,1,2-Tetrachloroethane	5.00	4.36	4.82	87.2	96.4	75.0-125			10.0	20
1,1,2,2-Tetrachloroethane	5.00	4.22	4.43	84.4	88.6	65.0-130			4.86	20
1,1,2-Trichlorotrifluoroethane	5.00	5.00	4.79	100	95.8	69.0-132			4.29	20
Tetrachloroethene	5.00	4.67	5.13	93.4	103	72.0-132			9.39	20
Toluene	5.00	4.70	5.22	94.0	104	79.0-120			10.5	20
1,2,3-Trichlorobenzene	5.00	4.92	4.63	98.4	92.6	50.0-138			6.07	20
1,2,4-Trichlorobenzene	5.00	5.00	5.20	100	104	57.0-137			3.92	20
1,1,1-Trichloroethane	5.00	4.66	4.88	93.2	97.6	73.0-124			4.61	20
1,1,2-Trichloroethane	5.00	4.54	5.00	90.8	100	80.0-120			9.64	20
Trichloroethene	5.00	4.49	4.88	89.8	97.6	78.0-124			8.32	20
Trichlorofluoromethane	5.00	5.82	5.69	116	114	59.0-147			2.26	20
1,2,3-Trichloropropane	5.00	3.97	4.36	79.4	87.2	73.0-130			9.36	20
1,2,4-Trimethylbenzene	5.00	4.39	4.83	87.8	96.6	76.0-121			9.54	20
1,2,3-Trimethylbenzene	5.00	4.38	4.70	87.6	94.0	77.0-120			7.05	20
1,3,5-Trimethylbenzene	5.00	4.40	4.67	88.0	93.4	76.0-122			5.95	20
Vinyl chloride	5.00	5.10	5.36	102	107	67.0-131			4.97	20
Xylenes, Total	15.0	13.7	14.8	91.3	98.7	79.0-123			7.72	20
(S) Toluene-d8				*99.7*	*102*	*80.0-120*				
(S) 4-Bromofluorobenzene				*106*	*104*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*89.6*	*91.4*	*70.0-130*				

Method Blank (MB)

(MB) R3898157-3 03/06/23 20:59

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
cis-1,2-Dichloroethene	U		0.126	1.00
(S) Toluene-d8	*108*			*80.0-120*
(S) 4-Bromofluorobenzene	*102*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3898157-1 03/06/23 19:06

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
cis-1,2-Dichloroethene	5.00	4.28	85.6	73.0-120	
(S) Toluene-d8			*107*	*80.0-120*	
(S) 4-Bromofluorobenzene			*107*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*116*	*70.0-130*	

Method Blank (MB)

(MB) R3898685-3 03/07/23 19:36

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acrolein	U		2.54	50.0
(S) Toluene-d8	*101*			*80.0-120*
(S) 4-Bromofluorobenzene	*91.4*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*93.6*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3898685-1 03/07/23 18:31 • (LCSD) R3898685-2 03/07/23 18:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acrolein	25.0	24.6	22.1	98.4	88.4	10.0-160			10.7	26
(S) Toluene-d8				*98.8*	*97.9*	*80.0-120*				
(S) 4-Bromofluorobenzene				*93.3*	*94.2*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*99.4*	*92.5*	*70.0-130*				

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
C3	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

State of Oregon Chain of Custody – Page 1 of 2

Agency, Authorized Purchaser or Agent: Apex Companies for DEQ (Kara Master)	**Contract Laboratory Name:** Pace National **Lab Batch #:**	**Lab Selection Criteria:** ☐ Proximity (if TAT < 48 hrs) ☐ Prior work on same project ☒ Cost (for anticipated analyses) ☐ Other labs disqualified or unable to perform requested services ☐ Emergency work	**Turn Around Time:** ☒ 10 days (std.) ☐ 5 days ☐ 72 hours ☐ 48 hours ☐ 24 hours ☐ Other
Send Lab Report To: Mark Pugh Address: Department of Environmental Quality, 700 NE Multnomah St, Suite 600, Portland, OR 97232 Tel. #: E-mail: Pugh.mark@deq.state.or.us ~~Kara.E.MASTER@deq.oregon.gov~~	**Invoice To:** ODEQ Business Office Address: 700 NE Multnomah Street, Suite 600, Portland, OR. 97232 Tel. #:		
Project Name: Springdale ~~Tigard~~ Cleaners Project #: ~~32000232601~~ 32000 1469 - 03 Sampler(s) Name(s): Alex Evernden	**Sample Preservative**		J083

Sample ID#	Collection Date/Time	Matrix	Number of Containers	VOCs EPA-8260	Gases- EPA RSK 175								L1590589
				Requested Analyses									
MW-1	2/22/23 1205	Water	3	X									-01
MW-2	2/22/23 1240	Water	3	X									-02
MW-3	2/22/23 1239	Water	3	X									-03
MW-4	2/22/23 1207	Water	3	X									-04
MW-5-20	1036 ~~2/24/23~~ 2/27/23	Water	3	X									-05
MW-6-20	2/22/23 1456	Water	3	X									-06
MW-7	1106 ~~2/24/23~~ 2/27/23	Water	5	X	X								-07
MW-8	2/22/23 1548	Water	3	X									-08
MW-9	2/22/23 1600	Water	5	X	X								-09
JEMW-1	2/22/23 1118	Water	3	X									-10
JEMW-2	2/22/23 1110	Water	3	X									-11
JEMW-4	1155 ~~2/24/23~~ 2/27/23	Water	3	X									-12

Notes: Report Results to: MStevens@apexcos.com; COwens@apexcos.com; Kelsi.Evans@apexcos.com; Kara.E.MASTER@deq.oregon.gov

Relinquished By: ~~Robert Schettler~~ Alex Evernden	Agency/Agent: Apex Companies	Received By:	Agency/Agent: NSHT
Signature:	Time & Date: 2/27/23 1254	Signature:	Time & Date: 03/01/23 0900
Relinquished By:	Agency/Agent:	~~Received By:~~	Agency/Agent:
Signature:	Time & Date:	Signature:	Time & Date:

THIS PURCHASE IS SUBMITTED PURSUANT TO STATE OF OREGON SOLICITATION #**102-1098-07** AND PRICE AGREEMENT # [**8901**]. THE PRICE AGREEMENT INCLUDING CONTRACT TERMS AND CONDITIONS AND SPECIAL CONTRACT TERMS AND CONDITIONS (T'S &C'S) CONTAINED IN THE PRICE AGREEMENT ARE HEREBY INCORPORATED BY REFERENCE AND SHALL APPLY TO THIS PURCHASE AND SHALL TAKE PRECEDENCE OVER ALL OTHER CONFLICTING T'S AND C'S, EXPRESS OR IMPLIED.

Agency, Authorized Purchaser or Agent: Apex Companies for DEQ (Kara Master)	**Contract Laboratory Name:** Pace National **Lab Batch #:**	**Lab Selection Criteria:** ☐ Proximity (if TAT < 48 hrs) ☐ Prior work on same project ☒ Cost (for anticipated analyses) ☐ Other labs disqualified or unable to perform requested services ☐ Emergency work	**Turn Around Time:** ☒ 10 days (std.) ☐ 5 days ☐ 72 hours ☐ 48 hours ☐ 24 hours ☐ Other _____
Send Lab Report To: Mark Pugh Address: Department of Environmental Quality, 700 NE Multnomah St, Suite 600, Portland, OR 97232 Tel. #: E-mail: pugh.mark@deq.state.or.us	**Invoice To:** ODEQ Business Office Address: 700 NE Multnomah Street, Suite 600, Portland, OR. 97232 Tel. #:		
Project Name: Springdale Cleaners Project #: 320001469-03 Sampler(s) Name(s): Alex Evernden			

Sample ID#	Collection Date/Time	Matrix	Number of Containers	VOCs EPA-8260	Gases- EPA RSK 175	Sample Preservative	Requested Analyses	L1590589
JEMW-5	2/22/23 1600	water	3	X				-13
JEMW-6	2/22/23 1420	water	3	X				-14
DUP-1	2/22/23 1240	water	3	X				-15

Sample Receipt Checklist

COC Seal Present/Intact:	✓Y__N	If Applicable	
COC Signed/Accurate:	✓Y__N	VOA Zero Headspace:	✓Y__N
Bottles arrive intact:	✓Y__N	Pres.Correct/Check:	__Y__N
Correct bottles used:	✓Y__N		
Sufficient volume sent:	✓Y__N		
RAD Screen <0.5 mR/hr:	✓Y__N		

Notes: Report Results to: MStevens@apexcos.com; COwens@apexcos.com; Kelsi.Evans@apexcos.com;

Relinquished By: Alex Evernden	Agency/Agent: Apex Companies	Received By:	Agency/Agent: NSHT 2.2
Signature:	Time & Date: 2/27/23 1254	Signature:	Time & Date: 03/01/23 0900
Relinquished By:	Agency/Agent:	Received By:	Agency/Agent:
Signature:	Time & Date:	Signature:	Time & Date:

THIS PURCHASE IS SUBMITTED PURSUANT TO STATE OF OREGON SOLICITATION #**102-1098-07** AND PRICE AGREEMENT # [**8901**]. THE PRICE AGREEMENT INCLUDING CONTRACT TERMS AND CONDITIONS AND SPECIAL CONTRACT TERMS AND CONDITIONS (T'S &C'S) CONTAINED IN THE PRICE AGREEMENT ARE HEREBY INCORPORATED BY REFERENCE AND SHALL APPLY TO THIS PURCHASE AND SHALL TAKE PRECEDENCE OVER ALL OTHER CONFLICTING T'S AND C'S, EXPRESS OR IMPLIED.

ANALYTICAL REPORT

March 08, 2023

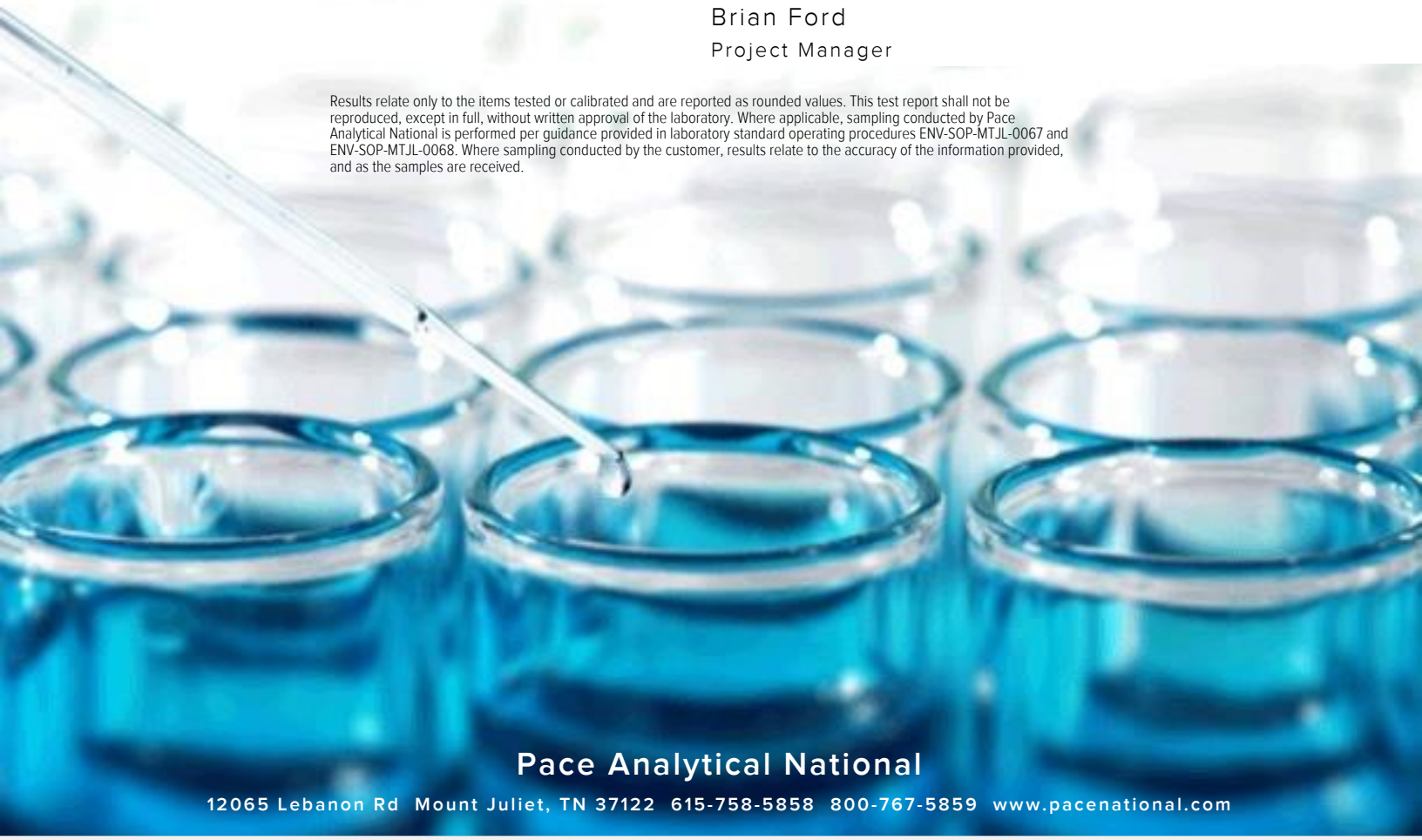
Oregon Dept. of Env. Quality - ODEQ

Sample Delivery Group:	L1590869
Samples Received:	03/02/2023
Project Number:	320001469-03
Description:	ODEQ - Springdale Cleaners
Report To:	Mark Pugh

Entire Report Reviewed By:

Brian Ford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

KEY BANK SOUTH L1590869-01 Air

Collected by: Alec Everden | Collected date/time: 02/28/23 14:54 | Received date/time: 03/02/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2016489	1	03/03/23 15:54	03/03/23 15:54	DAH	Mt. Juliet, TN

STATE FARM L1590869-03 Air

Collected by: Alec Everden | Collected date/time: 02/28/23 16:06 | Received date/time: 03/02/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2016489	1	03/03/23 16:22	03/03/23 16:22	DAH	Mt. Juliet, TN

BE SALON NORTH L1590869-04 Air

Collected by: Alec Everden | Collected date/time: 02/28/23 14:43 | Received date/time: 03/02/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2016489	1	03/03/23 16:51	03/03/23 16:51	DAH	Mt. Juliet, TN

BE SALON SOUTH L1590869-05 Air

Collected by: Alec Everden | Collected date/time: 02/28/23 14:31 | Received date/time: 03/02/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2016489	1	03/03/23 17:20	03/03/23 17:20	DAH	Mt. Juliet, TN

OMBASE YOGA L1590869-06 Air

Collected by: Alec Everden | Collected date/time: 02/28/23 14:47 | Received date/time: 03/02/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2016489	1	03/03/23 17:48	03/03/23 17:48	DAH	Mt. Juliet, TN

HILLSDALE VET L1590869-07 Air

Collected by: Alec Everden | Collected date/time: 02/28/23 13:57 | Received date/time: 03/02/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2016489	1	03/03/23 18:16	03/03/23 18:16	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG2017312	100	03/05/23 22:27	03/05/23 22:27	DBB	Mt. Juliet, TN

OUTDOOR AMBIENT L1590869-08 Air

Collected by: Alec Everden | Collected date/time: 02/28/23 14:49 | Received date/time: 03/02/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2016489	1	03/03/23 18:45	03/03/23 18:45	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG2017038	1	03/04/23 10:59	03/04/23 10:59	CEP	Mt. Juliet, TN

VP-4 L1590869-09 Air

Collected by: Alec Everden | Collected date/time: 02/28/23 09:10 | Received date/time: 03/02/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2016489	1	03/03/23 19:13	03/03/23 19:13	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG2017038	1	03/04/23 11:29	03/04/23 11:29	CEP	Mt. Juliet, TN

SAMPLE SUMMARY

VP-6R L1590869-10 Air

Collected by	Collected date/time	Received date/time
Alec Everden	02/28/23 14:29	03/02/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2016489	1	03/03/23 19:41	03/03/23 19:41	DAH	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Project Manager

Project Narrative

-02, KEY BANK NORTH: could not be analyzed due to insufficient sample volume.

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	1.44	3.42		1	WG2016489
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2016489
Benzene	71-43-2	78.10	0.200	0.639	0.205	0.655		1	WG2016489
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2016489
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2016489
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2016489
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2016489
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2016489
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG2016489
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2016489
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2016489
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2016489
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2016489
Chloromethane	74-87-3	50.50	0.200	0.413	0.483	0.998		1	WG2016489
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2016489
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG2016489
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2016489
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2016489
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2016489
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2016489
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2016489
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2016489
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2016489
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2016489
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	2.20	8.72		1	WG2016489
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2016489
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2016489
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2016489
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2016489
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG2016489
Ethanol	64-17-5	46.10	1.25	2.36	4.10	7.73		1	WG2016489
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG2016489
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2016489
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.214	1.20		1	WG2016489
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.429	2.12		1	WG2016489
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2016489
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2016489
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG2016489
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2016489
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2016489
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2016489
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG2016489
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2016489
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG2016489
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2016489
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2016489
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2016489
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2016489
2-Propanol	67-63-0	60.10	1.25	3.07	1.72	4.23		1	WG2016489
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2016489
n-Propylbenzene	103-65-1	120	0.200	0.982	ND	ND		1	WG2016489
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2016489
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2016489
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.497	3.37		1	WG2016489
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2016489
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG2016489

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2016489
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG2016489
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2016489
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2016489
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG2016489
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2016489
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2016489
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2016489
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2016489
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG2016489
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG2016489
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG2016489
TPH (GC/MS) Low Fraction	8006-61-9	101	200	826	ND	ND		1	WG2016489
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*100*				WG2016489

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	4.25	10.1		1	WG2016489
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2016489
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG2016489
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2016489
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2016489
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2016489
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2016489
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2016489
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG2016489
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2016489
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2016489
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2016489
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2016489
Chloromethane	74-87-3	50.50	0.200	0.413	0.556	1.15		1	WG2016489
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2016489
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG2016489
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2016489
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2016489
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2016489
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2016489
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2016489
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2016489
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2016489
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2016489
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	3.54	14.0		1	WG2016489
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2016489
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2016489
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2016489
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2016489
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG2016489
Ethanol	64-17-5	46.10	1.25	2.36	17.3	32.6		1	WG2016489
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG2016489
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2016489
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.211	1.19		1	WG2016489
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.412	2.04		1	WG2016489
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2016489
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2016489
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG2016489
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2016489
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2016489
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2016489
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG2016489
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2016489
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG2016489
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2016489
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2016489
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2016489
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2016489
2-Propanol	67-63-0	60.10	1.25	3.07	2.84	6.98		1	WG2016489
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2016489
n-Propylbenzene	103-65-1	120	0.200	0.982	ND	ND		1	WG2016489
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2016489
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2016489
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.605	4.11		1	WG2016489
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2016489
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG2016489

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2016489
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG2016489
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2016489
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2016489
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG2016489
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2016489
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2016489
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2016489
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2016489
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG2016489
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG2016489
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG2016489
TPH (GC/MS) Low Fraction	8006-61-9	101	200	826	ND	ND		1	WG2016489
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*99.7*				WG2016489

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	1.37	3.26		1	WG2016489
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2016489
Benzene	71-43-2	78.10	0.200	0.639	0.221	0.706		1	WG2016489
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2016489
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2016489
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2016489
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2016489
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2016489
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG2016489
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2016489
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2016489
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2016489
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2016489
Chloromethane	74-87-3	50.50	0.200	0.413	0.497	1.03		1	WG2016489
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2016489
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG2016489
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2016489
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2016489
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2016489
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2016489
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2016489
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2016489
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2016489
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2016489
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	0.389	1.54		1	WG2016489
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2016489
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2016489
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2016489
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2016489
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG2016489
Ethanol	64-17-5	46.10	1.25	2.36	2.32	4.37		1	WG2016489
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG2016489
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2016489
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG2016489
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.424	2.10		1	WG2016489
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2016489
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2016489
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG2016489
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2016489
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2016489
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2016489
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG2016489
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2016489
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG2016489
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2016489
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2016489
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2016489
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2016489
2-Propanol	67-63-0	60.10	1.25	3.07	ND	ND		1	WG2016489
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2016489
n-Propylbenzene	103-65-1	120	0.200	0.982	ND	ND		1	WG2016489
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2016489
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2016489
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.392	2.66		1	WG2016489
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2016489
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG2016489

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2016489
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG2016489
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2016489
Trichloroethylene	79-01-6	131	0.200	1.07	0.387	2.07		1	WG2016489
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG2016489
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2016489
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2016489
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2016489
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2016489
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG2016489
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG2016489
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG2016489
TPH (GC/MS) Low Fraction	8006-61-9	101	200	826	ND	ND		1	WG2016489
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*103*				WG2016489

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	1.49	3.54		1	WG2016489
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2016489
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG2016489
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2016489
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2016489
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2016489
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2016489
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2016489
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG2016489
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2016489
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2016489
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2016489
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2016489
Chloromethane	74-87-3	50.50	0.200	0.413	0.545	1.13		1	WG2016489
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2016489
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG2016489
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2016489
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2016489
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2016489
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2016489
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2016489
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2016489
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2016489
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2016489
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	0.375	1.49		1	WG2016489
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2016489
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2016489
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2016489
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2016489
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG2016489
Ethanol	64-17-5	46.10	1.25	2.36	2.75	5.19		1	WG2016489
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG2016489
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2016489
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.207	1.16		1	WG2016489
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.418	2.07		1	WG2016489
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2016489
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2016489
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG2016489
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2016489
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2016489
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2016489
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG2016489
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2016489
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG2016489
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2016489
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2016489
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2016489
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2016489
2-Propanol	67-63-0	60.10	1.25	3.07	ND	ND		1	WG2016489
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2016489
n-Propylbenzene	103-65-1	120	0.200	0.982	ND	ND		1	WG2016489
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2016489
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2016489
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.289	1.96		1	WG2016489
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2016489
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG2016489

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2016489
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG2016489
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2016489
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2016489
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG2016489
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2016489
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2016489
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2016489
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2016489
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG2016489
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG2016489
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG2016489
TPH (GC/MS) Low Fraction	8006-61-9	101	200	826	ND	ND		1	WG2016489
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*102*				WG2016489

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	3.98	9.46		1	WG2016489
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2016489
Benzene	71-43-2	78.10	0.200	0.639	0.207	0.661		1	WG2016489
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2016489
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2016489
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2016489
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2016489
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2016489
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG2016489
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2016489
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2016489
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2016489
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2016489
Chloromethane	74-87-3	50.50	0.200	0.413	0.593	1.22		1	WG2016489
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2016489
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG2016489
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2016489
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2016489
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2016489
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2016489
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2016489
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2016489
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2016489
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2016489
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	0.805	3.19		1	WG2016489
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2016489
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2016489
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2016489
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2016489
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG2016489
Ethanol	64-17-5	46.10	1.25	2.36	5.52	10.4		1	WG2016489
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG2016489
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2016489
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.208	1.17		1	WG2016489
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.417	2.06		1	WG2016489
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2016489
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2016489
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG2016489
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2016489
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2016489
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2016489
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG2016489
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2016489
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG2016489
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2016489
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2016489
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2016489
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2016489
2-Propanol	67-63-0	60.10	1.25	3.07	3.58	8.80		1	WG2016489
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2016489
n-Propylbenzene	103-65-1	120	0.200	0.982	ND	ND		1	WG2016489
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2016489
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2016489
Tetrachloroethylene	127-18-4	166	0.200	1.36	1.81	12.3		1	WG2016489
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2016489
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG2016489

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2016489
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG2016489
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2016489
Trichloroethylene	79-01-6	131	0.200	1.07	0.661	3.54		1	WG2016489
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG2016489
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2016489
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2016489
Vinyl chloride	75-01-4	62.50	0.200	0.511	0.529	1.35		1	WG2016489
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2016489
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG2016489
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG2016489
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG2016489
TPH (GC/MS) Low Fraction	8006-61-9	101	200	826	ND	ND		1	WG2016489
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*96.7*				WG2016489

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	16.2	38.5		1	WG2016489
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2016489
Benzene	71-43-2	78.10	0.200	0.639	0.203	0.648		1	WG2016489
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2016489
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2016489
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2016489
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2016489
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2016489
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG2016489
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2016489
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2016489
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2016489
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2016489
Chloromethane	74-87-3	50.50	0.200	0.413	0.671	1.39		1	WG2016489
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2016489
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG2016489
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2016489
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2016489
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2016489
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2016489
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2016489
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2016489
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2016489
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2016489
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2016489
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2016489
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2016489
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2016489
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2016489
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG2016489
Ethanol	64-17-5	46.10	125	236	1620	3050		100	WG2017312
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG2016489
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2016489
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG2016489
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.407	2.01		1	WG2016489
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2016489
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2016489
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG2016489
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2016489
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2016489
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2016489
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG2016489
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2016489
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG2016489
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2016489
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2016489
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2016489
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2016489
2-Propanol	67-63-0	60.10	125	307	6010	14800		100	WG2017312
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2016489
n-Propylbenzene	103-65-1	120	0.200	0.982	ND	ND		1	WG2016489
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2016489
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2016489
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.966	6.56		1	WG2016489
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2016489
Toluene	108-88-3	92.10	0.500	1.88	0.867	3.27		1	WG2016489

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2016489
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG2016489
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2016489
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2016489
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG2016489
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2016489
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2016489
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2016489
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2016489
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG2016489
m&p-Xylene	1330-20-7	106	0.400	1.73	0.600	2.60		1	WG2016489
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG2016489
TPH (GC/MS) Low Fraction	8006-61-9	101	200	826	ND	ND		1	WG2016489
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*100*				WG2016489
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*99.3*				WG2017312

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	ND	ND		1	WG2016489
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2016489
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG2016489
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2016489
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2016489
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2016489
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2016489
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2016489
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG2016489
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2016489
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2016489
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2016489
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2016489
Chloromethane	74-87-3	50.50	0.200	0.413	0.521	1.08		1	WG2016489
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2016489
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG2016489
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2016489
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2016489
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2016489
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2016489
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2016489
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2016489
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2016489
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2016489
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2016489
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2016489
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2016489
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2016489
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2016489
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG2016489
Ethanol	64-17-5	46.10	1.25	2.36	8.47	16.0		1	WG2017038
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG2016489
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2016489
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG2016489
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.418	2.07		1	WG2016489
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2016489
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2016489
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG2016489
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2016489
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2016489
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2016489
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG2016489
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2016489
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG2016489
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2016489
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2016489
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2016489
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2016489
2-Propanol	67-63-0	60.10	1.25	3.07	1.64	4.03		1	WG2017038
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2016489
n-Propylbenzene	103-65-1	120	0.200	0.982	ND	ND		1	WG2016489
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2016489
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2016489
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.458	3.11		1	WG2016489
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2016489
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG2016489

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2016489
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG2016489
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2016489
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2016489
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG2016489
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2016489
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2016489
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2016489
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2016489
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG2016489
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG2016489
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG2016489
TPH (GC/MS) Low Fraction	8006-61-9	101	200	826	ND	ND		1	WG2016489
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*102*				WG2016489
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*91.1*				WG2017038

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	ND	ND		1	WG2016489
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2016489
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG2016489
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2016489
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2016489
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2016489
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2016489
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2016489
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG2016489
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2016489
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2016489
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2016489
Chloroform	67-66-3	119	0.200	0.973	0.439	2.14		1	WG2016489
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG2016489
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2016489
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG2016489
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2016489
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2016489
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2016489
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2016489
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2016489
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2016489
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2016489
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2016489
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	5.06	20.1		1	WG2016489
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2016489
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2016489
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2016489
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2016489
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG2016489
Ethanol	64-17-5	46.10	1.25	2.36	ND	ND		1	WG2017038
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG2016489
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2016489
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG2016489
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.449	2.22		1	WG2016489
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2016489
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2016489
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG2016489
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2016489
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2016489
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2016489
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG2016489
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2016489
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG2016489
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2016489
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2016489
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2016489
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2016489
2-Propanol	67-63-0	60.10	1.25	3.07	ND	ND		1	WG2016489
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2016489
n-Propylbenzene	103-65-1	120	0.200	0.982	ND	ND		1	WG2016489
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2016489
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2016489
Tetrachloroethylene	127-18-4	166	0.200	1.36	2.55	17.3		1	WG2016489
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2016489
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG2016489

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2016489
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG2016489
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2016489
Trichloroethylene	79-01-6	131	0.200	1.07	1.10	5.89		1	WG2016489
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG2016489
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2016489
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2016489
Vinyl chloride	75-01-4	62.50	0.200	0.511	0.810	2.07		1	WG2016489
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2016489
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG2016489
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG2016489
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG2016489
TPH (GC/MS) Low Fraction	8006-61-9	101	200	826	ND	ND		1	WG2016489
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*98.0*				WG2016489
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*93.3*				WG2017038

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	ND	ND		1	WG2016489
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2016489
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG2016489
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2016489
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2016489
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2016489
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2016489
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2016489
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG2016489
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2016489
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2016489
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2016489
Chloroform	67-66-3	119	0.200	0.973	1.96	9.54		1	WG2016489
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG2016489
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2016489
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG2016489
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2016489
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2016489
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2016489
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2016489
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2016489
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2016489
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2016489
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2016489
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	7.24	28.7		1	WG2016489
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2016489
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2016489
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2016489
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2016489
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG2016489
Ethanol	64-17-5	46.10	1.25	2.36	ND	ND		1	WG2016489
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG2016489
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2016489
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG2016489
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.409	2.02		1	WG2016489
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2016489
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2016489
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG2016489
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2016489
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2016489
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2016489
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG2016489
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2016489
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG2016489
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2016489
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2016489
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2016489
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2016489
2-Propanol	67-63-0	60.10	1.25	3.07	ND	ND		1	WG2016489
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2016489
n-Propylbenzene	103-65-1	120	0.200	0.982	ND	ND		1	WG2016489
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2016489
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2016489
Tetrachloroethylene	127-18-4	166	0.200	1.36	17.3	117		1	WG2016489
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2016489
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG2016489

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2016489
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG2016489
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2016489
Trichloroethylene	79-01-6	131	0.200	1.07	1.55	8.30		1	WG2016489
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG2016489
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2016489
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2016489
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2016489
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2016489
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG2016489
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG2016489
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG2016489
TPH (GC/MS) Low Fraction	8006-61-9	101	200	826	ND	ND		1	WG2016489
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*97.6*				WG2016489

Method Blank (MB)

(MB) R3897093-3 03/03/23 11:43

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.584	1.25
Allyl Chloride	U		0.114	0.200
Benzene	U		0.0715	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0702	0.200
Bromoform	U		0.0732	0.600
Bromomethane	U		0.0982	0.200
1,3-Butadiene	U		0.104	2.00
Carbon disulfide	U		0.102	0.200
Carbon tetrachloride	U		0.0732	0.200
Chlorobenzene	U		0.0832	0.200
Chloroethane	U		0.0996	0.200
Chloroform	U		0.0717	0.200
Chloromethane	U		0.103	0.200
2-Chlorotoluene	U		0.0828	0.200
Cyclohexane	U		0.0753	0.200
Dibromochloromethane	U		0.0727	0.200
1,2-Dibromoethane	U		0.0721	0.200
1,2-Dichlorobenzene	U		0.128	0.200
1,3-Dichlorobenzene	U		0.182	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0700	0.200
1,1-Dichloroethane	U		0.0723	0.200
1,1-Dichloroethene	U		0.0762	0.200
cis-1,2-Dichloroethene	U		0.0784	0.200
trans-1,2-Dichloroethene	U		0.0673	0.200
1,2-Dichloropropane	U		0.0760	0.200
cis-1,3-Dichloropropene	U		0.0689	0.200
trans-1,3-Dichloropropene	U		0.0728	0.200
1,4-Dioxane	U		0.0833	0.200
Ethanol	U		0.265	1.25
Ethylbenzene	U		0.0835	0.200
4-Ethyltoluene	U		0.0783	0.200
Trichlorofluoromethane	U		0.0819	0.200
Dichlorodifluoromethane	U		0.137	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0793	0.200
1,2-Dichlorotetrafluoroethane	U		0.0890	0.200
Heptane	U		0.104	0.200
Hexachloro-1,3-butadiene	U		0.105	0.630
n-Hexane	U		0.206	0.630

Method Blank (MB)

(MB) R3897093-3 03/03/23 11:43

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Isopropylbenzene	U		0.0777	0.200
Methylene Chloride	U		0.0979	0.200
Methyl Butyl Ketone	U		0.133	1.25
2-Butanone (MEK)	U		0.0814	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0765	1.25
Methyl Methacrylate	U		0.0876	0.200
MTBE	U		0.0647	0.200
Naphthalene	U		0.350	0.630
2-Propanol	U		0.264	1.25
Propene	U		0.0932	1.25
n-Propylbenzene	U		0.0773	0.200
Styrene	U		0.0788	0.200
1,1,2,2-Tetrachloroethane	U		0.0743	0.200
Tetrachloroethylene	U		0.0814	0.200
Tetrahydrofuran	U		0.0734	0.200
Toluene	U		0.0870	0.500
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0736	0.200
1,1,2-Trichloroethane	U		0.0775	0.200
Trichloroethylene	U		0.0680	0.200
1,2,4-Trimethylbenzene	U		0.0764	0.200
1,3,5-Trimethylbenzene	U		0.0779	0.200
2,2,4-Trimethylpentane	U		0.133	0.200
Vinyl chloride	U		0.0949	0.200
Vinyl Bromide	U		0.0852	0.200
Vinyl acetate	U		0.116	0.200
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
TPH (GC/MS) Low Fraction	47.4	J	39.7	200
(S) 1,4-Bromofluorobenzene	*98.0*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3897093-1 03/03/23 10:09 • (LCSD) R3897093-2 03/03/23 10:38

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	3.75	3.21	3.12	85.6	83.2	70.0-130			2.84	25
Allyl Chloride	3.75	3.39	3.28	90.4	87.5	70.0-130			3.30	25
Benzene	3.75	3.55	3.50	94.7	93.3	70.0-130			1.42	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3897093-1 03/03/23 10:09 • (LCSD) R3897093-2 03/03/23 10:38

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzyl Chloride	3.75	3.65	3.42	97.3	91.2	70.0-152			6.51	25
Bromodichloromethane	3.75	3.57	3.52	95.2	93.9	70.0-130			1.41	25
Bromoform	3.75	3.52	3.41	93.9	90.9	70.0-130			3.17	25
Bromomethane	3.75	3.11	3.11	82.9	82.9	70.0-130			0.000	25
1,3-Butadiene	3.75	3.18	3.09	84.8	82.4	70.0-130			2.87	25
Carbon disulfide	3.75	3.20	3.22	85.3	85.9	70.0-130			0.623	25
Carbon tetrachloride	3.75	3.36	3.41	89.6	90.9	70.0-130			1.48	25
Chlorobenzene	3.75	3.62	3.54	96.5	94.4	70.0-130			2.23	25
Chloroethane	3.75	3.14	3.20	83.7	85.3	70.0-130			1.89	25
Chloroform	3.75	3.27	3.26	87.2	86.9	70.0-130			0.306	25
Chloromethane	3.75	3.16	3.16	84.3	84.3	70.0-130			0.000	25
2-Chlorotoluene	3.75	3.56	3.43	94.9	91.5	70.0-130			3.72	25
Cyclohexane	3.75	3.20	3.31	85.3	88.3	70.0-130			3.38	25
Dibromochloromethane	3.75	3.65	3.52	97.3	93.9	70.0-130			3.63	25
1,2-Dibromoethane	3.75	3.66	3.52	97.6	93.9	70.0-130			3.90	25
1,2-Dichlorobenzene	3.75	3.74	3.62	99.7	96.5	70.0-130			3.26	25
1,3-Dichlorobenzene	3.75	3.76	3.57	100	95.2	70.0-130			5.18	25
1,4-Dichlorobenzene	3.75	3.62	3.56	96.5	94.9	70.0-130			1.67	25
1,2-Dichloroethane	3.75	3.60	3.50	96.0	93.3	70.0-130			2.82	25
1,1-Dichloroethane	3.75	3.77	3.19	101	85.1	70.0-130			16.7	25
1,1-Dichloroethene	3.75	3.05	3.10	81.3	82.7	70.0-130			1.63	25
cis-1,2-Dichloroethene	3.75	3.16	3.20	84.3	85.3	70.0-130			1.26	25
trans-1,2-Dichloroethene	3.75	3.11	3.14	82.9	83.7	70.0-130			0.960	25
1,2-Dichloropropane	3.75	3.46	3.37	92.3	89.9	70.0-130			2.64	25
cis-1,3-Dichloropropene	3.75	3.34	3.68	89.1	98.1	70.0-130			9.69	25
trans-1,3-Dichloropropene	3.75	3.52	3.54	93.9	94.4	70.0-130			0.567	25
1,4-Dioxane	3.75	3.85	4.14	103	110	70.0-140			7.26	25
Ethanol	3.75	3.28	3.31	87.5	88.3	55.0-148			0.910	25
Ethylbenzene	3.75	3.59	3.45	95.7	92.0	70.0-130			3.98	25
4-Ethyltoluene	3.75	3.70	3.47	98.7	92.5	70.0-130			6.42	25
Trichlorofluoromethane	3.75	3.14	3.24	83.7	86.4	70.0-130			3.13	25
Dichlorodifluoromethane	3.75	3.16	3.15	84.3	84.0	64.0-139			0.317	25
1,1,2-Trichlorotrifluoroethane	3.75	3.17	3.21	84.5	85.6	70.0-130			1.25	25
1,2-Dichlorotetrafluoroethane	3.75	3.17	3.13	84.5	83.5	70.0-130			1.27	25
Heptane	3.75	3.43	3.43	91.5	91.5	70.0-130			0.000	25
Hexachloro-1,3-butadiene	3.75	3.72	3.76	99.2	100	70.0-151			1.07	25
n-Hexane	3.75	3.22	3.23	85.9	86.1	70.0-130			0.310	25
Isopropylbenzene	3.75	3.70	3.56	98.7	94.9	70.0-130			3.86	25
Methylene Chloride	3.75	3.13	3.07	83.5	81.9	70.0-130			1.94	25
Methyl Butyl Ketone	3.75	3.61	3.56	96.3	94.9	70.0-149			1.39	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3897093-1 03/03/23 10:09 • (LCSD) R3897093-2 03/03/23 10:38

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methyl Ethyl Ketone	3.75	3.49	3.47	93.1	92.5	70.0-130			0.575	25
4-Methyl-2-pentanone (MIBK)	3.75	3.61	3.54	96.3	94.4	70.0-139			1.96	25
Methyl Methacrylate	3.75	3.60	3.62	96.0	96.5	70.0-130			0.554	25
MTBE	3.75	3.35	3.33	89.3	88.8	70.0-130			0.599	25
Naphthalene	3.75	3.81	3.71	102	98.9	70.0-159			2.66	25
2-Propanol	3.75	3.13	3.16	83.5	84.3	70.0-139			0.954	25
Propene	3.75	3.24	3.28	86.4	87.5	64.0-144			1.23	25
n-Propylbenzene	3.75	3.71	3.60	98.9	96.0	70.0-130			3.01	25
Styrene	3.75	3.58	3.53	95.5	94.1	70.0-130			1.41	25
1,1,2,2-Tetrachloroethane	3.75	3.61	3.52	96.3	93.9	70.0-130			2.52	25
Tetrachloroethylene	3.75	3.64	3.41	97.1	90.9	70.0-130			6.52	25
Tetrahydrofuran	3.75	3.27	3.28	87.2	87.5	70.0-137			0.305	25
Toluene	3.75	3.52	3.52	93.9	93.9	70.0-130			0.000	25
1,2,4-Trichlorobenzene	3.75	3.93	3.74	105	99.7	70.0-160			4.95	25
1,1,1-Trichloroethane	3.75	3.29	3.29	87.7	87.7	70.0-130			0.000	25
1,1,2-Trichloroethane	3.75	3.76	3.70	100	98.7	70.0-130			1.61	25
Trichloroethylene	3.75	3.52	3.66	93.9	97.6	70.0-130			3.90	25
1,2,4-Trimethylbenzene	3.75	3.63	3.50	96.8	93.3	70.0-130			3.65	25
1,3,5-Trimethylbenzene	3.75	3.59	3.43	95.7	91.5	70.0-130			4.56	25
2,2,4-Trimethylpentane	3.75	3.33	3.31	88.8	88.3	70.0-130			0.602	25
Vinyl chloride	3.75	3.10	3.17	82.7	84.5	70.0-130			2.23	25
Vinyl Bromide	3.75	3.12	3.08	83.2	82.1	70.0-130			1.29	25
Vinyl acetate	3.75	3.05	3.00	81.3	80.0	70.0-130			1.65	25
m&p-Xylene	7.50	7.25	7.10	96.7	94.7	70.0-130			2.09	25
o-Xylene	3.75	3.57	3.45	95.2	92.0	70.0-130			3.42	25
TPH (GC/MS) Low Fraction	203	172	171	84.7	84.2	70.0-130			0.583	25
(S) 1,4-Bromofluorobenzene				*101*	*98.4*	*60.0-140*				

Method Blank (MB)

(MB) R3897987-3 03/04/23 08:37

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Ethanol	U		0.265	1.25
2-Propanol	U		0.264	1.25
(S) 1,4-Bromofluorobenzene	*90.7*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3897987-1 03/04/23 07:34 • (LCSD) R3897987-2 03/04/23 08:07

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	3.10	2.91	82.7	77.6	55.0-148			6.32	25
2-Propanol	3.75	3.03	3.02	80.8	80.5	70.0-139			0.331	25
(S) 1,4-Bromofluorobenzene				*101*	*102*	*60.0-140*				

Method Blank (MB)

(MB) R3897976-3 03/05/23 10:24

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Ethanol	U		0.265	1.25
2-Propanol	U		0.264	1.25
(S) 1,4-Bromofluorobenzene	*96.9*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3897976-1 03/05/23 09:01 • (LCSD) R3897976-2 03/05/23 09:38

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	3.75	2.96	100	78.9	55.0-148			23.5	25
2-Propanol	3.75	3.92	3.12	105	83.2	70.0-139			22.7	25
(S) 1,4-Bromofluorobenzene				*95.3*	*95.2*	*60.0-140*				

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

State of Oregon Chain of Custody – Page 1 of 1

Agency, Authorized Purchaser or Agent: Apex Companies for DEQ	**Contract Laboratory Name:** Pace National **Lab Batch #:**	**Lab Selection Criteria:** ☐ Proximity (if TAT < 48 hrs) ☐ Prior work on same project ☒ Cost (for anticipated analyses) ☐ Other labs disqualified or unable to perform requested services ☐ Emergency work	**Turn Around Time:** ☒ 10 days (std.) ☐ 5 days ☐ 72 hours ☐ 48 hours ☐ 24 hours ☐ Other _____
Send Lab Report To: Mark Pugh Address: Department of Environmental Quality, 700 NE Multnomah St, Suite 600, Portland, OR 97232 Tel. #: E-mail: Mark.pugh@DEQ.Oregon.gov	**Invoice To:** ODEQ Business Office Address: 700 NE Multnomah Street, Suite 600, Portland, OR. 97232 Tel. #:		
Project Name: Springdale Cleaners Project #: 320001469-03 Sampler(s) Name(s): Alex Evernden	**Sample Preservative**		E127

Sample ID#	Collection Date/Time	Matrix	Number of Containers	VOC's TO-15	Requested Analyses									L1590669
Key Bank ~~Rear~~ South	2/28/23 1454	air	1	X										-01
Key Bank ~~Front~~ North	2/28/23 1601	air	1	X										-02
State Farm	2/28/23 1606	air	1	X										-03
BE Salon North	2/28/23 1443	air	1	X										-04
BE Salon South	2/28/23 1431	air	1	X										-05
OmBase Yoga	2/28/23 1417	air	1	X										-06
Hillsdale Vet	2/28/23 1357	air	1	X										-07
Outdoor Ambient	2/28/23 1449	air	1	X										-08
VP-4	2/28/23 0910	air	1	X										-09
VP-6R	2/28/23 1429	air	1	X										-10

Notes: Report Results to: MStevens@apexcos.com; COwens@apexcos.com; Kelsi.Evans@apexcos.com;

Relinquished By: Alex Evernden	Agency/Agent: Apex Companies	Received By:	Agency/Agent:
Signature:	Time & Date: 3/1/23 0830	Signature: 3-2-23 0915	Time & Date:
Relinquished By:	Agency/Agent:	Received By:	Agency/Agent:
Signature:	Time & Date:	Signature:	Time & Date:

THIS PURCHASE IS SUBMITTED PURSUANT TO STATE OF OREGON SOLICITATION #102-1098-07 AND PRICE AGR
TERMS AND CONDITIONS AND SPECIAL CONTRACT TERMS AND CONDITIONS (T'S &C'S) CONTAINED IN THE PRIC
APPLY TO THIS PURCHASE AND SHALL TAKE PRECEDENCE OVER ALL OTHER CONFLICTING T'S AND C'S, EXPRES

Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres.Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RAD Screen <0.5 mR/hr:	Y N		

Appendix C

Historical Data

Table C-1
Groundwater Elevations and Field Parameters
Springdale Cleaners
Portland, Oregon

Well ID and Casing Elevation (in feet)	Sample Date	Depth to Water (feet)	Groundwater Elevation (feet)	Field Parameters				
				pH	Temperature (°C)	Conductivity (mS)	DO (ppm)	ORP (mV)
JEMW-1	5/14/2009	4.33	93.76	6.51	14.94	651	0.47	309.7
(98.09)	2/18/2010	--	--	--	--	--	--	--
	12/15/2010	4.00	94.09	6.51	15.89	538	1.21	312.9
	8/16/2011	4.93	93.16	6.07	17.01	288	1.13	280
	11/26/2012	4.20	93.89	--	--	--	--	--
	7/22/2014	4.71	93.38	--	--	--	--	--
	4/15/2015	4.34	93.75	--	--	--	--	--
	4/27/2016	4.51	93.58	--	--	--	--	--
	10/17/2016	4.44	93.65	--	--	--	--	--
	4/18/2017	4.16	93.93	--	--	--	--	--
	10/19/2017	5.22	92.87	--	--	--	--	--
	4/17/2018	4.15	93.94	--	--	--	--	--
	10/10/2018	6.06	92.03	--	--	--	--	--
	4/17/2019	4.53	93.56	--	--	--	--	--
	10/14/2019	5.39	92.70	--	--	--	--	--
	4/20/2020	4.65	93.44	5.99	15.8	328.5	0.49	6.0
	10/28/2020	5.71	92.38	6.37	17.5	360.2	0.6	18.7
	4/14/2021	4.75	93.34	6.28	15.2	330.0	1.57	20.1
	10/26/2021	5.09	93.00	6.22	16.8	381.1	0.57	-43.4
	5/24/2022	3.43	94.66	6.55	16.9	330.6	4.2	-142.4
	10/31/2022	4.80	93.29	6.42	17.6	386.7	0.86	-54.9
	2/22/2023	4.33	93.76	5.82	14.16	767	0	-42.5
JEMW-2	12/15/2010	4.48	88.62	--	--	--	--	--
(93.10)	8/16/2011	5.07	88.03	--	--	--	--	--
	11/26/2012	4.50	88.60	--	--	--	--	--
	7/22/2014	4.68	88.42	--	--	--	--	--
	4/15/2015	4.58	88.52	--	--	--	--	--
	4/27/2016	4.70	88.40	--	--	--	--	--
	10/17/2016	4.48	88.62	--	--	--	--	--
	4/18/2017	4.66	88.44	--	--	--	--	--
	10/19/2017	4.81	88.29	--	--	--	--	--
	4/17/2018	4.55	88.55	--	--	--	--	--
	10/10/2018	4.66	88.44	--	--	--	--	--
	4/17/2019	4.64	88.46	--	--	--	--	--
	10/14/2019	5.09	88.01	--	--	--	--	--
	4/20/2020	4.75	88.35	5.83	15.6	325.2	0.29	21.4
	10/28/2020	5.19	87.91	6.36	17.2	345.9	0.52	39
	4/14/2021	5.12	87.98	6.48	15.9	364.9	1.55	33.1
	10/26/2021	4.86	88.24	6.19	16.4	324.2	0.67	-48.6
	5/24/2022	4.94	88.16	6.47	15.8	313.6	4.90	-191.2
	10/31/2022	4.35	88.75	6.4	16.9	323.7	0.90	-45.9
	2/22/2023	4.65	88.45	6.72	14.15	408	0.58	-21.6
JEMW-3	5/14/2009	2.55	87.28	6.75	14.68	518	0.70	654.4
(89.83)	2/18/2010	--	--	--	--	--	--	--
	12/15/2010	2.28	87.55	6.52	16.04	508	1.18	218.5
	8/16/2011	3.82	86.01	6.19	17.09	250	0.75	259
	11/26/2012	2.53	87.30	--	--	--	--	--
	7/22/2014	3.00	86.83	--	--	--	--	--
	4/15/2015	NA	--	--	--	--	--	--
	4/27/2016	NA	--	--	--	--	--	--
	10/17/2016	NA	--	--	--	--	--	--

Please see notes at end of table.

Table C-1
Groundwater Elevations and Field Parameters
Springdale Cleaners
Portland, Oregon

Well ID and Casing Elevation (in feet)	Sample Date	Depth to Water (feet)	Groundwater Elevation (feet)	Field Parameters				
				pH	Temperature (°C)	Conductivity (mS)	DO (ppm)	ORP (mV)
JEMW-3	4/18/2017	NA	--	--	--	--	--	--
(89.83)	10/19/2017	NA	--	--	--	--	--	--
	4/17/2018	NA	--	--	--	--	--	--
	10/10/2018	NA	--	--	--	--	--	--
	4/17/2019	NA	--	--	--	--	--	--
	10/14/2019	NA	--	--	--	--	--	--
	4/20/2020	NA	--	--	--	--	--	--
	10/28/2020	NA	--	--	--	--	--	--
	4/14/2021	NA	--	--	--	--	--	--
	10/25/2021	NA	--	--	--	--	--	--
	5/24/2022	NA	--	--	--	--	--	--
	10/31/2022	NA	--	--	--	--	--	--
	2/22/2023	Well Inaccessible						
JEMW-4	5/14/2009	2.31	91.86	6.21	14.71	2910	0.74	620.9
(94.17)	2/18/2010	--	--	--	--	--	--	--
	12/15/2010	1.60	92.57	6.02	13.07	2,468	1.87	293.4
	8/16/2011	4.78	89.39	5.28	15.30	1,118	1.31	282
	11/26/2012	3.09	91.08	--	--	--	--	--
	7/22/2014	8.90	85.27	--	--	--	--	--
	4/15/2015	2.74	91.43	--	--	--	--	--
	4/27/2016	2.95	91.22	--	--	--	--	--
	10/17/2016	NA	--	--	--	--	--	--
	4/18/2017	NA	--	--	--	--	--	--
	10/19/2017	NA	--	--	--	--	--	--
	4/17/2018	NA	--	--	--	--	--	--
	10/10/2018	NA	--	--	--	--	--	--
	4/19/2019	NA	--	5.40	14.81	1221	5.19	36.3
	10/14/2019	4.16	90.01	5.79	15.8	--	14.7	46.8
	4/20/2020	3.83	90.34	5.67	13.5	1194	0.66	11.1
	10/28/2020	5.24	88.93	6.29	16.3	1278	0.79	11.9
	4/14/2021	1.92	92.25	5.85	14.1	1104	0.78	-18.4
	10/26/2021	6.21	87.96	6.08	15.8	759	1.80	-51.4
	5/24/2022	2.23	91.94	6.22	14.7	1029	5.50	-37.3
	10/31/2022	8.60	85.57	6.15	16.2	1091	0.79	-62.8
	2/22/2023	2.41	91.76	Well Dewatered				
JEMW-5	5/14/2009	5.57	85.11	6.17	14.64	611	1.21	697.7
(90.68)	2/18/2010	--	--	--	--	--	--	--
	12/15/2010	1.67	89.01	6.39	13.16	995	6.20	270.0
	8/16/2011	3.65	87.03	5.85	17.49	888	1.60	235
	11/26/2012	2.56	88.12	6.16	15.6	788	2.15	33.6
	7/22/2014	3.63	87.05	6.45	15.68	900	1.09	50.2
	4/15/2015	2.66	88.02	5.73	15.20	1636	1.46	-17.4
	4/27/2016	2.21	88.47	5.9	10.48	1011	0.96	-17.6
	10/17/2016	2.67	88.01	5.74	16.76	1184	1.31	180.5
	4/18/2017	1.66	89.02	6.31	14.34	--	2.13	-41.1
	10/19/2017	2.42	88.26	NA	NA	NA	NA	NA
	4/17/2018	2.34	88.34	Well Dewatered				
	10/10/2018	4.51	86.17	7.75	17.7	566	0.32	-37.9
	4/17/2019	2.50	88.18	Well Dewatered				
	10/14/2019	3.78	86.90	Well Dewatered				
	4/20/2020	NA	--	6.07	14.9	340.3	0.38	-1.0

Table C-1
Groundwater Elevations and Field Parameters
Springdale Cleaners
Portland, Oregon

Well ID and Casing Elevation (in feet)	Sample Date	Depth to Water (feet)	Groundwater Elevation (feet)	Field Parameters				
				pH	Temperature (°C)	Conductivity (mS)	DO (ppm)	ORP (mV)
JEMW-5	10/28/2020	4.04	86.64	Well Dewatered				
(90.68)	4/14/2021	0.90	89.78	Well Dewatered				
	10/26/2021	3.00	87.68	Well Dewatered				
	5/24/2022	NA	--	Well Dewatered				
	10/31/2022	10.59	80.09	Well Dewatered				
	2/22/2023	3.26	87.42	Well Dewatered				
JEMW-6	5/14/2009	3.49	83.55	6.52	14.15	798	0.69	665.3
(87.04)	2/18/2010	--	--	--	--	--	--	--
	12/15/2010	3.25	83.79	6.49	14.70	714	0.77	221.7
	8/16/2011	4.20	82.84	5.48	14.96	359	0.61	269
	11/26/2012	3.22	83.82	6.82	15.38	334	0.6	-1.5
	10/17/2016	3.16	83.88	5.59	16.03	1016	0.88	187.8
	4/18/2017	3.35	83.69	6.59	14.27	1032	1.49	-78.4
	10/20/2017	5.62	81.42	6.34	16.3	255.3	1.19	-160.8
	7/22/2014	3.41	83.63	6.76	15.21	473	0.41	-11.5
	4/15/2015	3.44	83.60	7.41	14.21	872	0.70	-36.4
	4/27/2016	3.60	83.44	7.2	14.39	831	0.68	-32.1
	4/17/2018	2.90	84.14	7.05	13.9	270.1	--	11.7
	10/10/2018	4.17	82.87	7.00	17.4	570	1.63	-184.2
	4/17/2019	5.33	81.71	6.62	13.7	157.7	1.75	27.8
	10/15/2019	4.06	82.98	6.33	16.2	371.2	2.91	46.4
	4/20/2020	3.06	83.98	5.70	13.7	119.2	5.77	128.7
	10/28/2020	4.30	82.74	6.21	16.3	312.9	0.56	45.4
	4/14/2021	4.05	82.99	6.21	16.1	206.0	1.04	41.2
	10/27/2021	3.17	83.87	6.18	15.7	186.6	4.11	52.9
	5/24/2022	4.13	82.91	6.29	14.7	419.9	5.00	-174.5
	10/31/2022	3.00	84.04	6.43	15.9	359.7	3.80	-40.6
	2/22/2023	3.15	83.89	6.59	13.25	579	1.56	23.7
MW-1	12/15/2010	4.19	--	--	--	--	--	--
(NA)	8/16/2011	7.57	--	--	--	--	--	--
	11/26/2012	5.05	--	--	--	--	--	--
	7/22/2014	6.40	--	--	--	--	--	--
	4/15/2015	4.65	--	--	--	--	--	--
	4/27/2016	4.85	--	--	--	--	--	--
	10/17/2016	4.75	--	--	--	--	--	--
	4/18/2017	4.15	--	--	--	--	--	--
	10/19/2017	6.33	--	--	--	--	--	--
	4/17/2018	3.95	--	--	--	--	--	--
	10/10/2018	9.01	--	--	--	--	--	--
	4/17/2019	4.68	--	--	--	--	--	--
	10/14/2019	7.70	--	--	--	--	--	--
	4/20/2020	5.68	--	5.47	15.5	184.2	4.39	95.3
	10/28/2020	8.56	--	5.84	7.2	161.5	1.23	90.3
	4/14/2021	5.09	--	5.90	16.6	168.0	2.11	84.1
	10/25/2021	5.49	--	6.04	16.8	140.0	4.37	126.5
	5/24/2022	4.63	--	5.97	16.0	128.2	12.2	118.2
	10/31/2022	5.49	--	6.05	17.0	104.2	6.58	-22.7
	2/22/2023	4.59	--	6.02	13.6	182.0	5.82	203
MW-2	5/14/2009	4.80	--	6.31	15.00	967	0.50	315.4
(NA)	2/18/2010	--	--	--	--	--	--	--
	12/15/2010	3.96	--	6.38	15.33	676	1.07	232.7

Please see notes at end of table.

Table C-1
Groundwater Elevations and Field Parameters
Springdale Cleaners
Portland, Oregon

Well ID and Casing Elevation (in feet)	Sample Date	Depth to Water (feet)	Groundwater Elevation (feet)	Field Parameters				
				pH	Temperature (°C)	Conductivity (mS)	DO (ppm)	ORP (mV)
MW-2	8/16/2011	7.26	--	5.75	16.72	385	0.48	254
(NA)	11/26/2012	4.58	--	--	--	--	--	--
	7/22/2014	7.02	--	--	--	--	--	--
	4/15/2015	4.60	--	--	--	--	--	--
	4/27/2016	4.69	--	--	--	--	--	--
	10/17/2016	5.15	--	--	--	--	--	--
	4/18/2017	3.82	--	6.24	14.24	--	3.11	59.8
	10/20/2017	6.88	--	6.12	16.1	284.5	0.33	-110.8
	4/17/2018	3.92	--	6.00	14.7	379.5	--	196.1
	10/10/2018	8.12	--	6.34	17.1	250.4	0.87	65.3
	4/17/2019	4.88	--	5.98	15.6	247.7	0.34	45.3
	10/14/2019	6.76	--	5.97	17.1	269.9	0.70	57.9
	4/20/2020	5.59	--	5.44	16.1	299.4	0.32	82.9
	10/28/2020	7.84	--	5.9	17.7	273.8	0.57	64.1
	4/14/2021	4.60	--	5.94	16.2	266.0	2.85	62.7
	10/25/2021	5.88	--	5.86	16.9	264.0	0.48	116.8
	5/24/2022	5.34	--	5.88	16.9	245.2	2.70	209.2
	10/31/2022	12.49	--	5.31	16.6	1145	0.13	-26.4
	2/22/2023	7.50	--	6.26	14.08	932	0.20	-8.2
MW-3	12/15/2010	2.11	--	--	--	--	--	--
(NA)	8/16/2011	5.86	--	--	--	--	--	--
	11/26/2012	2.97	--	--	--	--	--	--
	7/22/2014	5.78	--	--	--	--	--	--
	4/15/2015	2.82	--	--	--	--	--	--
	4/27/2016	2.99	--	--	--	--	--	--
	10/17/2016	3.91	--	--	--	--	--	--
	4/18/2017	1.71	--	--	--	--	--	--
	10/19/2017	5.09	--	--	--	--	--	--
	4/17/2018	2.02	--	--	--	--	--	--
	10/10/2018	6.49	--	--	--	--	--	--
	4/17/2019	3.27	--	--	--	--	--	--
	10/14/2019	5.71	--	--	--	--	--	--
	4/20/2020	4.26	--	6.05	14.2	264.3	0.22	1.9
	10/28/2020	6.79	--	6.42	15.5	231.9	0.63	0.3
	4/14/2021	3.52	--	6.26	15.0	261.0	1.51	61.6
	10/25/2021	4.50	--	6.37	15.8	255.6	195	-56.5
	5/24/2022	3.08	--	6.17	15.0	268.0	2.80	247.5
	10/31/2022	--	--	6.32	15.2	74.3	1.78	-43.1
	2/22/2023	3.45	--	5.67	12.7	366.0	0.00	-3.2
MW-4	12/15/2010	2.15	--	--	--	--	--	--
(NA)	8/16/2011	5.65	--	--	--	--	--	--
	11/26/2012	2.71	--	--	--	--	--	--
	7/22/2014	5.41	--	--	--	--	--	--
	4/15/2015	2.88	--	--	--	--	--	--
	4/27/2016	3.01	--	--	--	--	--	--
	4/17/2018	2.31	--	--	--	--	--	--
	10/10/2018	6.31	--	--	--	--	--	--
	4/17/2019	3.32	--	--	--	--	--	--
	10/14/2019	5.24	--	--	--	--	--	--
	10/17/2016	3.27	--	--	--	--	--	--
	4/18/2017	2.19	--	--	--	--	--	--

Please see notes at end of table.

Table C-1
Groundwater Elevations and Field Parameters
Springdale Cleaners
Portland, Oregon

Well ID and Casing Elevation (in feet)	Sample Date	Depth to Water (feet)	Groundwater Elevation (feet)	Field Parameters				
				pH	Temperature (°C)	Conductivity (mS)	DO (ppm)	ORP (mV)
MW-4	10/19/2017	5.71	--	--	--	--	--	--
(NA)	4/20/2020	4.10	--	5.87	14.9	242.3	0.19	19.9
	10/28/2020	6.15	--	6.36	17	335.6	0.58	-17.6
	4/14/2021	3.71	--	6.09	15.8	306.0	1.28	10.8
	10/25/2021	2.08	--	6.03	16.3	382.0	0.92	-24.3
	5/24/2022	3.19	--	6.2	16.4	234.6	2.10	217.2
	10/31/2022	5.40	--	6.04	16.4	365.7	0.24	-64.1
	2/22/2023	3.94	--	5.65	13.71	539.0	0.00	-42.7
MW-5-10	12/15/2010	2.54	90.64	--	--	--	--	--
(93.18)	8/16/2011	2.94	90.24	--	--	--	--	--
	11/26/2012	3.15	90.03	--	--	--	--	--
	7/22/2014	4.24	88.94	--	--	--	--	--
	4/15/2015	3.18	90.00	--	--	--	--	--
	4/27/2016	3.32	89.86	--	--	--	--	--
	10/17/2016	NA	--	--	--	--	--	--
	4/18/2017	2.68	90.50	--	--	--	--	--
	10/19/2017	NA	--	--	--	--	--	--
	4/17/2018	NA	--	--	--	--	--	--
	10/10/2018	NA	--	--	--	--	--	--
	4/17/2019	4.45	88.73	--	--	--	--	--
	10/14/2019	4.90	88.28	--	--	--	--	--
	4/20/2020	4.54	88.64	--	--	--	--	--
	10/28/2020	4.82	88.36	--	--	--	--	--
	4/14/2021	6.70	86.48	--	--	--	--	--
	10/25/2021	3.82	89.36	--	--	--	--	--
	5/24/2022	NA	--	--	--	--	--	--
	10/31/2022	NA	--	--	--	--	--	--
	2/22/2023	NA	--	--	--	--	--	--
MW-5-20	5/14/2009	2.85	90.03	5.97	15.89	5206	0.73	660.8
(92.88)	2/18/2010	--	--	--	--	--	--	--
	12/15/2010	NA	--	5.40	15.00	4,835	7.05	327.2
	8/16/2011	3.90	88.98	5.08	17.30	2,450	0.92	164
	11/26/2012	2.35	90.53	5.75	15.63	2,386	6.81	41.4
	7/22/2014	3.80	89.08	6.55	18.05	4,713	0.47	7.0
	4/15/2015	2.64	90.24	7.14	14.32	5,309	0.69	-16.8
	4/27/2016	2.75	90.13	6.93	14.51	5,490	0.99	9.5
	10/17/2016	2.88	90.00	--	--	--	--	--
	4/18/2017	2.56	90.32	6.01	14.61	--	1.29	-67.5
	10/19/2017	5.67	87.21	5.92	15.9	305.5	0.51	-205.2
	4/17/2018	2.59	90.29	6.12	15.4	3425	--	-28.6
	10/10/2018	4.76	88.12	8.52	17.9	3180	1.91	-55.2
	4/17/2019	4.55	88.33	6.00	15.1	2343	0.33	0.9
	10/14/2019	4.11	88.77	6.05	16.6	2891	0.74	22.1
	4/20/2020	3.57	89.31	Well Dewatered				
	10/28/2020	4.53	88.35	5.89	17.3	3,164	0.81	3.7
	4/14/2021	3.78	89.10	5.85	14.9	3,187	0.97	51.6
	10/26/2021	4.48	88.40	5.81	16.3	2,526	0.69	-48.1
	5/24/2022	NA	--	--	--	--	--	--
	10/31/2022	3.33	89.55	5.92	16.4	3,009	0.47	-83.7
	2/22/2023	2.27	90.61	5.42	13.7	3,804	0.00	-46.9

Please see notes at end of table.

Table C-1
Groundwater Elevations and Field Parameters
Springdale Cleaners
Portland, Oregon

Well ID and Casing Elevation (in feet)	Sample Date	Depth to Water (feet)	Groundwater Elevation (feet)	Field Parameters				
				pH	Temperature (°C)	Conductivity (mS)	DO (ppm)	ORP (mV)
MW-6-10	12/15/2010	2.49	86.30	--	--	--	--	--
(88.79)	8/16/2011	3.36	85.43	--	--	--	--	--
	11/26/2012	2.39	86.40	--	--	--	--	--
	7/22/2014	3.02	85.77	--	--	--	--	--
	4/15/2015	2.36	86.43	--	--	--	--	--
	4/27/2016	2.68	86.11	--	--	--	--	--
	10/17/2016	NA	--	--	--	--	--	--
	4/18/2017	NA	--	--	--	--	--	--
	10/19/2017	NA	--	--	--	--	--	--
	4/17/2018	NA	--	--	--	--	--	--
	10/10/2018	NA	--	--	--	--	--	--
	4/17/2019	NA	--	--	--	--	--	--
	10/14/2019	NA	--	--	--	--	--	--
	4/20/2020	NA	--	--	--	--	--	--
	10/28/2020	NA	--	--	--	--	--	--
	4/1/2021	NA	--	--	--	--	--	--
	10/25/2021	2.92	85.87	--	--	--	--	--
	5/24/2022	NA	--	--	--	--	--	--
	10/31/2022	NA	--	--	--	--	--	--
	2/22/2023	NA	--	--	--	--	--	--
MW-6-20	5/14/2009	2.84	85.86	6.61	14.78	668	2.17	195.3
(88.70)	2/18/2010	--	--	--	--	--	--	--
	12/15/2010	2.76	85.94	6.48	15.31	1,110	4.35	242.2
	8/16/2011	3.63	85.07	4.81	15.63	787	2.11	213
	11/26/2012	2.66	86.04	6.49	15.34	545	2.42	25.2
	7/22/2014	3.46	85.24	6.40	15.16	693	1.31	28.6
	4/15/2015	2.78	85.92	6.47	15.13	797	5.02	-3.4
	4/27/2016	2.97	85.73	6.77	14.31	555	4.74	-1.2
	4/17/2018	2.45	86.25	6.63	15.5	455.1	--	-18.9
	10/10/2018	3.94	84.76	7.02	17.4	489.2	0.44	-103.3
	4/17/2019	NA	--	6.35	14.5	171.4	1.64	27.3
	10/14/2019	3.52	85.18	6.4	16.5	271.4	2.75	44.2
	10/17/2016	2.77	85.93	6.03	16.52	469	2.32	175.7
	4/19/2017	NA	--	6.42	14.26	--	2.37	-25
	10/20/2017	NA	--	6.21	15.9	308.4	0.53	-143.7
	4/20/2020	2.81	85.89	6.02	15.4	322.4	1.6	-1.2
	10/28/2020	3.95	84.75	6.32	16.7	449.9	1.21	14.8
	4/14/2021	2.79	85.91	6.35	14.9	341.0	1.64	14.6
	10/27/2021	2.96	85.74	6.05	16.0	493.2	0.53	-45.4
	5/24/2022	NA	--	--	--	--	--	--
	10/31/2022	7.71	80.99	6.25	15.4	530	0.61	-137.5
	2/22/2023	2.66	86.04	5.49	14.5	976	0.00	-251
MW-7	5/14/2009	4.46	--	5.92	14.85	1445	1.39	668.1
(NA)	2/18/2010	--	--	--	--	--	--	--
	12/15/2010	2.93	--	6.35	14.66	927	1.85	266.7
	8/16/2011	4.71	--	5.91	16.87	1,294	2.52	272.8
	11/26/2012	5.03	--	6.29	1551	1,409	7.86	26.8
	7/22/2014	6.33	--	6.89	18.62	3,429	0.78	2.4
	4/15/2015	4.99	--	7.37	14.80	3,244	0.69	-23.8
	4/27/2016	5.10	--	7.04	14.33	157	0.79	-7.24
	10/17/2016	4.57	--	--	--	--	--	--

Please see notes at end of table.

Table C-1
Groundwater Elevations and Field Parameters
Springdale Cleaners
Portland, Oregon

Well ID and Casing Elevation (in feet)	Sample Date	Depth to Water (feet)	Groundwater Elevation (feet)	Field Parameters				
				pH	Temperature (°C)	Conductivity (mS)	DO (ppm)	ORP (mV)
MW-7	4/18/2017	4.98	--	6.16	14.37	--	2.23	-86
(NA)	10/19/2017	5.44	--	5.94	17.9	1874	0.70	-206.6
	4/17/2018	4.88	--	Well Dewatered				
	10/10/2018	6.61	--	7.17	18.0	1795	0.48	-35.3
	4/17/2019	4.90	--	6.12	14.6	1263	1.47	0.8
	10/14/2019	3.31	--	6.24	17.2	1722	6.9	7.0
	4/20/2020	4.94	--	6.24	17.2	1722	6.9	7
	10/28/2020	6.46	--	Well Dewatered				
	4/14/2021	3.52	--	Well Dewatered				
	10/26/2021	5.11	--	Well Dewatered				
	5/24/2022	NA	--	Well Dewatered				
	10/31/2022	5.38	--	Well Dewatered				
	2/22/2023	6.63	--	5.86	14	2227	0	-69.7
MW-8	5/14/2009	2.48	--	5.58	14.85	1318	0.60	708.4
(NA)	2/18/2010	--	--	--	--	--	--	--
	12/15/2010	2.33	--	6.10	13.47	949	5.36	278.1
	8/16/2011	3.09	--	6.14	18.4	528	NA	NA
	11/26/2012	2.39	--	6.23	15.73	469	3.85	28.4
	7/22/2014	2.99	--	6.60	16.48	623	3.60	30.4
	4/15/2015	2.50	--	Well Dewatered				
	4/27/2016	2.50	--	6.95	10.5	1121	1.86	68.1
	10/17/2016	2.51	--	--	--	--	--	--
	4/18/2017	2.70	--	6.62	14.55	--	1.08	-94.5
	10/19/2017	2.99	--	6.18	17.5	429	0.33	-204.1
	4/17/2018	2.41	--	7.04	15.3	446.6	--	-46.8
	10/10/2018	4.12	--	8.35	17.9	510	0.48	-70.2
	4/17/2019	2.38	--	6.58	14.7	315.6	0.49	-8.3
	10/14/2019	3.35	--	6.44	17.3	482.2	0.70	19.5
	4/20/2020	2.73	--	Well Dewatered				
	10/28/2020	3.80	--	6.45	17.4	466.7	0.5	-9.2
	4/14/2021	2.44	--	6.34	15.8	497.0	1.83	4.3
	10/26/2021	2.78	--	6.28	15.8	390.9	3.13	13.3
	5/24/2022	NA	--	--	--	--	--	--
	10/31/2022	2.48	--	6.28	17.5	630	8.76	-101.3
	2/22/2023	2.21	--	5.84	14.23	563	0	-51.4
MW-9	12/15/2010	2.14	85.14	6.39	14.61	685	0.97	264.8
(87.28)	8/16/2011	3.10	84.18	5.94	15.64	374	0.73	256
	11/26/2012	3.26	84.02	--	--	--	--	--
	7/22/2014	3.22	84.06	6.18	15.82	2512	0.29	84.1
	4/15/2015	7.72	79.56	5.95	14.24	2119	1.94	31.2
	4/27/2016	8.90	78.38	5.69	14.11	995	2.91	33.2
	10/17/2016	2.61	84.67	4.74	16.1	490	0.53	245.5
	4/18/2017	4.26	83.02	5.57	14.05	--	2.41	-17.4
	10/20/2017	NA	--	5.35	16.4	840	0.26	-116.1
	4/17/2018	NA	--	5.88	14.9	939	--	37.8
	10/10/2018	3.36	83.92	7.41	17.6	865	0.34	-50.2
	4/17/2019	NA	--	5.61	14.3	582	0.21	38.6
	10/14/2019	NA	--	5.64	16.2	825	0.59	46.3
	4/20/2020	NA	--	5.46	14.6	624.0	0.20	20.1
	10/28/2020	3.92	83.36	5.60	16.5	773.0	0.41	38.2

Please see notes at end of table.

Table C-1
Groundwater Elevations and Field Parameters
Springdale Cleaners
Portland, Oregon

Well ID and Casing Elevation (in feet)	Sample Date	Depth to Water (feet)	Groundwater Elevation (feet)	Field Parameters				
				pH	Temperature (°C)	Conductivity (mS)	DO (ppm)	ORP (mV)
MW-9	4/14/2021	2.98	84.30	5.43	15.4	731.0	1.82	39.7
(87.28)	10/27/2021	2.02	85.26	5.50	16.2	378.0	0.54	24.2
	5/24/2022	NA	--	--	--	--	--	--
	10/31/2022	10.74	76.54	6.05	16.2	840.0	0.28	-175.3
	2/22/2023	3.96	83.32	6.31	12.18	967.0	0.27	28.3

Please see notes at end of table.

Table C-1
Groundwater Elevations and Field Parameters
Springdale Cleaners
Portland, Oregon

Notes:
°C = Degrees Celsius.
mS = MicroSiemens.
DO (ppm) = Dissolved Oxygen (parts per million)].
mV = Millivolts
-- = Not Measured
NA = Not Available

Table C-2
Groundwater Sampling Analytical Results: Chloroethene VOCs
Springdale Cleaners
Portland, Oregon

Monitoring Well ID	Sample Date	Analyte Concentration in µg/L					Total Molar VOCs in µmol/L
		PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	
JEMW-1	5/27/1999	< 1	< 1	< 1	< 1	< 1	< 1
	12/5/1999	--	--	--	--	--	--
	1/6/2000	--	--	--	--	--	--
	2/8/2000	--	--	--	--	--	--
	3/7/2000	--	--	--	--	--	--
	6/14/2000	--	--	--	--	--	--
	9/11/2000	--	--	--	--	--	--
	12/6/2000	--	--	--	--	--	--
	6/5/2001	--	--	--	--	--	--
	3/6/2002	--	--	--	--	--	--
	8/12/2002	--	--	--	--	--	--
	9/9/2002	--	--	--	--	--	--
	4/10/2003	--	--	--	--	--	--
	4/15/2003	--	--	--	--	--	--
	10/27/2003	--	--	--	--	--	--
	10/12/2004	--	--	--	--	--	--
	7/6/2005	--	--	--	--	--	--
	9/17/2007	**1.52**	< 1	< 1	< 1	< 1	< 1
	5/30/2008	< 1	< 1	< 1	< 1	< 1	< 1
	8/12/2008	--	--	--	--	--	--
	11/11/2008	**19**	< 1.0	**5.0**	< 1.0	< 0.20	**0.18**
	5/14/2009	< 1.0	< 1.0	< 1.0	< 1.0	< 0.20	< 0.20
	2/18/2010	--	--	--	--	--	--
	12/15/2010	< 1.0	< 1.0	< 1.0	< 1.0	< 0.20	< 0.20
	8/17/2011	< 1.0	< 1.0	< 1.0	< 1.0	< 0.20	< 0.20
	11/26/2012	--	--	--	--	--	--
	7/23/2014	--	--	--	--	--	--
	4/16/2015	--	--	--	--	--	--
	4/27/2016	--	--	--	--	--	--
	10/18/2016	--	--	--	--	--	--
	4/19/2017	--	--	--	--	--	--
	10/20/2017	--	--	--	--	--	--
	4/19/2018	--	--	--	--	--	--
	10/10/2018	--	--	--	--	--	--
	4/17/2019	--	--	--	--	--	--
	10/15/2019	--	--	--	--	--	--
	4/20/2020	<1.00	<1.00	**0.364 J**	<1.00	<1.00	**0.02**
	10/28/2020	<1.00	<1.00	**1.65 J**	<1.00	**0.377 J**	**0.04**
	4/14/2021	**0.402 J**	<1.00	**0.206 J**	<1.00	<1.00	**0.02**
	10/26/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
	5/23/2022	<1.00 UJ	<1.00 UJ	**0.393 J**	<1.00 UJ	<1.00 UJ	**0.024 J**
	11/1/2022	**0.558 J**	**0.222 J**	**0.480 J**	<1.00	<1.00	**0.023**
	2/22/2023	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00

Please see notes at end of table.

Table C-2
Groundwater Sampling Analytical Results: Chloroethene VOCs
Springdale Cleaners
Portland, Oregon

Monitoring Well ID	Sample Date	Analyte Concentration in µg/L					Total Molar VOCs in µmol/L
		PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	
JEMW-2	5/27/1999	< 1	< 1	< 1	< 1	< 1	< 1
	12/5/1999	--	--	--	--	--	--
	1/6/2000	--	--	--	--	--	--
	2/8/2000	--	--	--	--	--	--
	3/7/2000	--	--	--	--	--	--
	6/14/2000	--	--	--	--	--	--
	9/11/2000	--	--	--	--	--	--
	12/6/2000	--	--	--	--	--	--
	6/5/2001	--	--	--	--	--	--
	3/6/2002	--	--	--	--	--	--
	8/12/2002	--	--	--	--	--	--
	9/9/2002	--	--	--	--	--	--
	4/10/2003	--	--	--	--	--	--
	4/15/2003	--	--	--	--	--	--
	10/27/2003	--	--	--	--	--	--
	10/12/2004	--	--	--	--	--	--
	7/6/2005	--	--	--	--	--	--
	9/17/2007	< 1	< 1	< 1	< 1	< 1	< 1
	5/30/2008	--	--	--	--	--	--
	8/12/2008	--	--	--	--	--	--
	11/10/2008	--	--	--	--	--	--
	5/14/2009	--	--	--	--	--	--
	2/18/2010	--	--	--	--	--	--
	12/15/2010	--	--	--	--	--	--
	8/17/2011	--	--	--	--	--	--
	11/26/2012	--	--	--	--	--	--
	7/23/2014	--	--	--	--	--	--
	4/16/2015	--	--	--	--	--	--
	4/27/2016	--	--	--	--	--	--
	10/18/2016	--	--	--	--	--	--
	4/19/2017	--	--	--	--	--	--
	10/20/2017	--	--	--	--	--	--
	4/19/2018	--	--	--	--	--	--
	10/10/2018	--	--	--	--	--	--
	4/17/2019	--	--	--	--	--	--
	10/15/2019	--	--	--	--	--	--
	4/20/2020	<1.00	<1.00	**0.167 J**	<1.00	<1.00	**0.02**
	10/28/2020	<1.00	<1.00	**0.7 J**	<1.00	<1.00	**0.03**
	4/14/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
	10/26/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
	5/24/2022	<1.00 UJ	<1.00 UJ	**0.176 J**	<1.00 UJ	<1.00 UJ	**0.022 J**
	11/1/2022	<1.00	**0.231 J**	**0.233 J**	<1.00	<1.00	**0.020**
	2/22/2023	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00

Please see notes at end of table.

Table C-2
Groundwater Sampling Analytical Results: Chloroethene VOCs
Springdale Cleaners
Portland, Oregon

Monitoring Well ID	Sample Date	Analyte Concentration in µg/L					Total Molar VOCs in µmol/L
		PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	
JEMW-3	5/28/1999	< 1	**26**	**6**	< 1	--	0.27
	12/8/1999	**69.3**	**29.5**	< 10	< 10	< 10	0.83
	1/6/2000	--	--	--	--	--	--
	2/8/2000	--	--	--	--	--	--
	3/7/2000	--	--	--	--	--	--
	6/16/2000	**1.5**	**11.3**	**7.6**	< 1	< 1	0.19
	9/11/2000	--	--	--	--	--	--
	12/5/2000	< 1	**34.8**	**14.6**	**1.7**	< 1	**0.44**
	6/5/2001	< 1	**20.3**	**10.9**	**1.1**	< 1	**0.29**
	3/6/2002	< 1	**19.5**	**99.4**	**30.8**	**23.6**	**1.87**
	8/12/2002	< 1	**13.4**	**16.6**	**1.8**	< 1	**0.30**
	9/9/2002	< 0.5	**9.3**	**15**	**1.6**	< 0.5	**0.25**
	4/10/2003	< 0.5	**16.0**	**25**	**2.8**	< 0.5	**0.41**
	4/15/2003	< 1	**8.8**	**20.3**	**2**	< 1	**0.31**
	10/27/2003	< 1	**7.1**	**22**	**2.8**	< 1	**0.32**
	10/12/2004	< 1	**2.2**	**16**	**1.54**	< 1	**0.21**
	7/6/2005	< 1	**3.9**	**21**	**2.55**	< 1	**0.29**
	9/17/2007	< 1	< 1	**12.3**	**1.48**	< 1	**0.16**
	5/30/2008	< 1	**1.28**	**8.60**	**1.41**	< 1	**0.12**
	8/12/2008	--	--	--	--	--	--
	11/11/2008	**3.0**	**2.4**	**18**	**2.2**	< 0.20	**0.25**
	5/15/2009	< 1.0	**1.2**	**9.5**	**1.5**	< 0.20	**0.13**
	2/18/2010	--	--	--	--	--	--
	12/15/2010	< 1.0	< 1.0	**7.5**	**1.1**	< 0.20	**0.10**
	8/17/2011	< 1.0	< 1.0	**6.0**	< 1.0	< 0.20	**0.08**
	11/26/2012	--	--	--	--	--	--
	7/23/2014	--	--	--	--	--	--
	4/16/2015	--	--	--	--	--	--
	4/27/2016	--	--	--	--	--	--
	10/18/2016	--	--	--	--	--	--
	4/19/2017	--	--	--	--	--	--
	10/20/2017	--	--	--	--	--	--
	4/19/2018	--	--	--	--	--	--
	10/10/2018	--	--	--	--	--	--
	4/17/2019	--	--	--	--	--	--
	10/15/2019	--	--	--	--	--	--
	4/20/2020	--	--	--	--	--	--
	10/28/2020	--	--	--	--	--	--
	4/14/2021	--	--	--	--	--	--
	10/25/2021	--	--	--	--	--	--
	5/23/2022	--	--	--	--	--	--
	11/1/2022	--	--	--	--	--	--
	2/22/2023	--	--	--	--	--	--

Please see notes at end of table.

Table C-2
Groundwater Sampling Analytical Results: Chloroethene VOCs
Springdale Cleaners
Portland, Oregon

Monitoring Well ID	Sample Date	Analyte Concentration in µg/L					Total Molar VOCs in µmol/L
		PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	
JEMW-4	5/28/1999	**98,000**	**8,300**	**740**	**170**	--	664
	12/8/1999	**63,900**	**6,430**	**871**	**137**	--	445
	1/6/2000	**39,800**	**5,450**	**608**	< 1	< 1	288
	2/8/2000	**30,600**	**4,200**	**580**	< 1	< 1	222
	3/7/2000	**47,400**	**9,730**	**1,330**	< 200	< 200	376
	6/15/2000	**4,420**	**35,900**	**37,900**	**628**	< 100	698
	9/12/2000	< 200	**680**	**73,700**	**588**	< 200	774
	12/6/2000	**79.9**	**623**	**91,400**	**1,380**	**366**	968
	6/5/2001	< 250	**298**	**43,900**	**808**	**9,510**	616
	3/6/2002	< 200	< 200	**38,400**	**816**	**9,690**	561
	8/12/2002	< 200	< 200	**54,700**	**532**	**4,060**	636
	9/9/2002	< 250	< 250	**61,000**	**750**	**7,700**	762
	4/10/2003	< 100	< 100	**66,000**	**570**	**5,700**	779
	4/15/2003	< 200	< 200	**53,500**	**558**	**4,900**	637
	10/27/2003	< 100	< 100	**32,300**	**810**	**5,740**	434
	10/12/2004	< 500	< 500	**55,200**	**990**	**8,900**	725
	7/6/2005	**2.9**	**1.2**	**35,700**	**929**	**9,240**	526
	9/17/2007	< 50	< 50	**10,500**	**1,460**	**4,310**	193
	5/30/2008	< 200	< 200	**4,420**	**974**	**1,150**	75.4
	8/12/2008	--	--	--	--	--	--
	11/10/2008	< 1.0	**2.6**	**5,600**	**960**	**1,500**	91.7
	5/14/2009	**1.2 HA,HP**	**1.4 HA,HP**	**8500 HA,HP**	**580 HA,HP**	**1500 HA,HP**	118
	2/18/2010	--	--	--	--	--	--
	12/15/2010	**1.2**	< 1.0	**303**	**470**	**323**	13.2
	8/17/2011	**2.7**	**4.6**	**454**	**131**	**58**	7.0
	11/26/2012	--	--	--	--	--	--
	7/23/2014	--	--	--	--	--	--
	4/16/2015	--	--	--	--	--	--
	4/27/2016	--	--	--	--	--	--
	10/18/2016	--	--	--	--	--	--
	4/19/2017	--	--	--	--	--	--
	10/20/2017	--	--	--	--	--	--
	4/19/2018	--	--	--	--	--	--
	10/10/2018	--	--	--	--	--	--
	4/19/2019	**2.11**	**1.58**	**17.4**	**6.02**	**5.96**	0.4
	10/15/2019	**0.408 J**	**0.546 J**	**7.01**	**5.31**	**12.3**	0.3
	4/21/2020	<1.00	**0.537 J**	**6.84**	**4.03**	**4.80**	0.2
	10/29/2020	<1.00	**0.43 J**	**5.15**	**3.29**	**4.40**	0.2
	4/14/2021	<1.00	<1.00	**1.15**	**3.03**	**2.08**	0.1
	10/26/2021	<1.00	**0.226 J**	**24.6**	**6.14**	**163 J+**	2.9
	5/24/2022	<1.00 UJ	**0.313 J**	**2.58 J**	**3.42 J**	**5.04 J**	0.148 J
	11/1/2022	**0.538 J**	**0.287 J**	**2.87**	**4.75**	<1.00	0.092
	2/27/2023	<1.00	**0.235 J**	**57.5**	**3.94**	**7.98**	0.766

Please see notes at end of table.

Table C-2
Groundwater Sampling Analytical Results: Chloroethene VOCs
Springdale Cleaners
Portland, Oregon

Monitoring Well ID	Sample Date	Analyte Concentration in µg/L					Total Molar VOCs in µmol/L
		PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	
JEMW-5	5/28/1999	**120,000**	**4,600**	**250**	< 1	--	**761**
	12/8/1999	**60,600**	**5,630**	**355**	< 100	< 100	**413**
	1/6/2000	**39,000**	**3,630**	< 400	< 400	< 400	**270**
	2/8/2000	**63,700**	**5,590**	**406**	< 200	< 200	**433**
	3/7/2000	**51,400**	**3,860**	**248**	< 200	< 200	**345**
	6/15/2000	**40,600**	**8,010**	**526**	< 100	< 100	**313**
	9/12/2000	**87,300**	**7,660**	**775**	< 500	< 500	**599**
	12/6/2000	**108,000**	**9,850**	**1,000**	< 500	< 500	**743**
	6/5/2001	**132,000**	**4,020**	< 500	< 500	< 500	**836**
	3/6/2002	**121,000**	**3,130**	< 1,000	< 1,000	< 1,000	**772**
	8/12/2002	**66,300**	**5,340**	< 500	< 500	< 500	**450**
	9/9/2002	**43,000**	**3,200**	< 500	< 500	< 500	**293**
	4/10/2003	**54,000**	**4,600**	**270**	**93**	< 50	**365**
	4/15/2003	**74,000**	**4,500**	< 500	< 500	< 500	**490**
	10/27/2003	**65,800**	**4,750**	< 200	< 200	< 200	**437**
	10/12/2004	**108,000**	**2,760**	< 1,000	< 1,000	< 1,000	**691**
	7/6/2005	**116,000**	**3,270**	< 1,000	< 1,000	< 1,000	**743**
	9/18/2007	**118,000**	**4,560**	**1,000**	< 500	< 500	**763**
	5/29/2008	**103,000**	**6,980**	< 1,000	< 1,000	< 1,000	**693**
	11/11/2008	**48,000**	**6,600**	**1,000**	**39**	**10**	**351**
	5/14/2009	**62,000**	**24,000**	**13,000**	**190**	**11**	**693**
	12/15/2010	**160**	**231**	**120,000**	**2,100**	**1,600**	**1,288**
	8/17/2011	**3,010**	**2,840**	**217,000**	**2,770**	**14,900**	**2,545**
	11/26/2012	**700**	< 500	**630,000**	**3,300**	**56,000**	**7,435**
	7/23/2014	< 5,000	< 5,000	**49,000**	< 5,000	**21,000**	**901**
	4/16/2015	< 50	< 50	**49,000**	**1,400**	**41,000**	**1,176**
	4/27/2016	< 50	< 50	**30,400**	**969**	**25,300**	**729**
	10/18/2016	**603**	**239**	**72,500**	**1,880**	**21,300**	**1,114**
	4/20/2017	**49.6 J**	< 50	**20,800**	**1,370**	**26,300**	**650**
	10/19/2017	<250	<20	**21,600**	**1,350**	**21,100**	**575**
	4/18/2018	<200	<200	**16,200**	**1,410**	**18,100**	**473**
	10/10/2018	<200	<200	**18,900**	**1,050**	**7,010**	**319**
	4/17/2019	**13.7**	<2,000	**28,600**	**754**	**8,650**	**449**
	10/15/2019	**1.26**	**1.34**	**17,600**	**1,050**	**10,400**	**359**
	4/21/2020	<200	<200	**21,100**	**881**	**7,610**	**350**
	10/29/2020	<200	<100	**7,660**	**214**	**3,060**	**131**
	4/14/2021	**668 J+**	**182 J**	**14,800**	**748**	**8,900**	**308**
	10/26/2021	**96.4 J**	**47.5 J**	**18,500**	**430**	**6,410 J+**	**299**
	5/24/2022	**157 J**	<200 UJ	**16900 J**	**710 J**	**7250 J**	**299 J**
	10/31/2022	**127 J**	**45.6 J**	**8,550**	**401**	**2,870**	**139**
	2/22/2023	<50.0	<50.0	**3,340**	**474**	**2,860**	**85**

Please see notes at end of table.

Table C-2
Groundwater Sampling Analytical Results: Chloroethene VOCs
Springdale Cleaners
Portland, Oregon

Monitoring Well ID	Sample Date	Analyte Concentration in µg/L					Total Molar VOCs in µmol/L
		PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	
JEMW-6	12/8/1999	**104**	**612**	**6,490**	**3,390**	**1,920**	**138**
	1/6/2000	**52**	**348**	**4,480**	**2,460**	**1,470**	**98**
	2/8/2000	**39.6**	**389**	**5,440**	**3,070**	**1,650**	**117**
	3/7/2000	**44.3**	**446**	**5,340**	**2,790**	**1,780**	**116**
	6/15/2000	**20.7**	**218**	**6,860**	**3,310**	**2,090**	**140**
	9/12/2000	< 50	**456**	**6,140**	**2,900**	**2,040**	**130**
	12/6/2000	< 50	**348**	**8,100**	**4,200**	**2,870**	**176**
	6/5/2001	< 20	**339**	**5,650**	**2,970**	**2,330**	**129**
	3/6/2002	< 100	**435**	**7,340**	**3,330**	**2,120**	**148**
	8/12/2002	< 100	**179**	**8,290**	**3,250**	**2,060**	**154**
	9/9/2002	< 130	< 130	**18,000**	**4,300**	**1,100**	**249**
	4/10/2003	< 50	**110.0**	**13,000**	**3,300**	**1,600**	**195**
	4/15/2003	< 100	< 100	**8,230**	**4,040**	**3,210**	**179**
	10/27/2003	**31**	**102.0**	**5,340**	**2,930**	**2,190**	**121**
	10/12/2004	< 50	< 50	**7,590**	**3,280**	**3,430**	**167**
	7/6/2005	**93**	**65.0**	**6,870**	**3,070**	**3,960**	**167**
	9/17/2007	< 100	< 100	**5,740**	**2,660**	**3,310**	**140**
	5/29/2008	< 200	< 200	**5,590**	**2,700**	**3,800**	**148**
	11/11/2008	**170**	**110**	**5,000**	**2,600**	**3,800**	**141**
	5/15/2009	**8.7**	**25**	**5,500**	**2,700**	**3,400**	**139**
	12/15/2010	**19.5**	**69**	**4,290**	**2,180**	**3,260**	**120**
	8/17/2011	**9.1**	**82**	**2,480**	**1,420**	**2,500**	**81**
	11/26/2012	**3.8**	**12**	**5,100**	**2,400**	**4,000**	**141**
	7/23/2014	< 50	< 50	**2,500**	**860**	**2,500**	**75**
	4/16/2015	**5.6**	**18**	**2,100**	**630**	**1,500**	**52**
	4/28/2016	**1.8**	**7.1**	**2,780**	**752**	**1,590**	**62**
	10/18/2016	< 25	< 25	**1,280**	**215**	**475**	**23**
	4/20/2017	< 25	< 25	**1,880**	**358**	**1,130**	**41**
	10/20/2017	**0.956 J**	**0.766 J**	**70.5**	**23.2**	**108**	**2.7**
	4/18/2018	<10	<10	**525**	**23.8**	**116**	**7.6**
	10/10/2018	<10.0	<10.0	**337**	**128**	**718**	**16.4**
	4/17/2019	**7.88**	**21.3**	**731**	**10.9**	**67.1**	**8.9**
	10/15/2019	<1.00	**1.88**	**508**	**65.5**	**1,390**	**28.2**
	4/21/2020	**0.663 J**	**1.20**	**70.1**	**4.47**	**61.6**	**1.8**
	10/29/2020	<1.00	**0.520 J**	**138**	**21.6**	**0.191 J**	**1.7**
	4/14/2021	**187**	**48.4**	**765**	**12.5**	**43.3**	**10.2**
	10/27/2021	**0.612 J**	**1.08**	**29.2**	<1.00	**0.369 J**	**0.3**
	5/24/2022	**3.65 J**	**2.25 J**	**87.3 J**	**7.34 J**	**326 J**	**6.23 J**
	11/1/2022	**2.08**	**1.16**	**27.4**	**4.29**	**138.0 J-**	**2.56**
	2/22/2023	<1.00	**0.275 J**	**7.43**	**2.04**	**144**	**2.41**

Please see notes at end of table.

Table C-2
Groundwater Sampling Analytical Results: Chloroethene VOCs
Springdale Cleaners
Portland, Oregon

Monitoring Well ID	Sample Date	Analyte Concentration in µg/L					Total Molar VOCs in µmol/L
		PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	
JEMW-7	12/5/1999	< 1	**5.8**	**2.7**	< 1	< 1	**0.088**
	1/6/2000	--	--	--	--	--	--
	2/8/2000	--	--	--	--	--	--
	3/7/2000	--	--	--	--	--	--
	6/16/2000	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2000	--	--	--	--	--	--
	12/5/2000	< 1	< 1	< 1	< 1	**10.1**	**0.18**
	6/5/2001	--	--	--	--	--	--
	3/6/2002	< 1	**1.7**	**21.7**	**5.2**	**3.1**	**0.34**
	8/12/2002	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2002	< 0.5	< 0.5	< 0.5	< 0.5	**0.98**	**0.024**
	4/10/2003	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	4/15/2003	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2003	< 1	< 1	< 1	< 1	< 1	< 1
	10/12/2004	< 1	< 1	< 1	< 1	< 1	< 1
	7/6/2005	< 1	< 1	< 1	< 1	< 1	< 1
	9/17/2007	< 1	< 1	< 1	< 1	< 1	< 1
	5/30/2008	--	--	--	--	--	--
	8/12/2008	--	--	--	--	--	--
	11/10/2008	--	--	--	--	--	--
	5/14/2009	--	--	--	--	--	--
	2/18/2010	--	--	--	--	--	--
	12/15/2010	--	--	--	--	--	--
	8/17/2011	--	--	--	--	--	--
	11/26/2012	--	--	--	--	--	--
	7/23/2014	--	--	--	--	--	--
	4/16/2015	--	--	--	--	--	--
	4/27/2016	--	--	--	--	--	--
	10/18/2016	--	--	--	--	--	--
	4/19/2017	--	--	--	--	--	--
	10/20/2017	--	--	--	--	--	--
	4/19/2018	--	--	--	--	--	--
	10/10/2018	--	--	--	--	--	--
	4/17/2019	--	--	--	--	--	--
	10/15/2019	--	--	--	--	--	--
	4/20/2020	--	--	--	--	--	--
	10/28/2020	--	--	--	--	--	--
	4/14/2021	--	--	--	--	--	--
	10/25/2021	--	--	--	--	--	--
	5/23/2022	--	--	--	--	--	--
	11/1/2022	--	--	--	--	--	--
	2/22/2023	--	--	--	--	--	--

Table C-2
Groundwater Sampling Analytical Results: Chloroethene VOCs
Springdale Cleaners
Portland, Oregon

Monitoring Well ID	Sample Date	Analyte Concentration in µg/L					Total Molar VOCs in µmol/L
		PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	
MW-1	4/16/1998	< 1	< 1	< 1	< 1	< 1	<1
	May 1998	< 1	< 1	< 1	< 1	< 1	<1
	5/27/1999	< 1	< 1	< 1	< 1	< 1	<1
	12/5/1999	--	--	--	--	--	--
	1/6/2000	--	--	--	--	--	--
	2/8/2000	--	--	--	--	--	--
	3/7/2000	--	--	--	--	--	--
	6/14/2000	--	--	--	--	--	--
	9/11/2000	--	--	--	--	--	--
	12/6/2000	--	--	--	--	--	--
	6/5/2001	--	--	--	--	--	--
	3/6/2002	--	--	--	--	--	--
	8/12/2002	--	--	--	--	--	--
	9/9/2002	--	--	--	--	--	--
	4/10/2003	--	--	--	--	--	--
	4/15/2003	--	--	--	--	--	--
	10/27/2003	--	--	--	--	--	--
	10/12/2004	--	--	--	--	--	--
	7/6/2005	--	--	--	--	--	--
	9/17/2007	< 1	< 1	**1.35**	**1.34**	< 1	**0.043**
	5/30/2008	--	--	--	--	--	--
	8/12/2008	--	--	--	--	--	--
	11/10/2008	--	--	--	--	--	--
	5/14/2009	--	--	--	--	--	--
	2/18/2010	--	--	--	--	--	--
	12/15/2010	--	--	--	--	--	--
	8/17/2011	--	--	--	--	--	--
	11/26/2012	--	--	--	--	--	--
	7/23/2014	--	--	--	--	--	--
	4/16/2015	--	--	--	--	--	--
	4/27/2016	--	--	--	--	--	--
	10/18/2016	--	--	--	--	--	--
	4/19/2017	--	--	--	--	--	--
	10/20/2017	--	--	--	--	--	--
	4/19/2018	--	--	--	--	--	--
	10/10/2018	--	--	--	--	--	--
	4/17/2019	--	--	--	--	--	--
	10/15/2019	--	--	--	--	--	--
	4/20/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
	10/28/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
	4/14/2021	**0.75 J**	<1.00	<1.00	<1.00	<1.00	**0.027**
	10/25/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
	5/23/2022	<1.00 UJ	<1.00 UJ	<1.00 UJ	<1.00 UJ	<1.00 UJ	<1.00 UJ
	11/1/2022	**0.493 J**	<1.00	<1.00	<1.00	<1.00	**0.025**
	2/22/2023	<1.00	<1.00	<1.00	<1.00	<1.00	**0.025**

Table C-2
Groundwater Sampling Analytical Results: Chloroethene VOCs
Springdale Cleaners
Portland, Oregon

Monitoring Well ID	Sample Date	Analyte Concentration in µg/L					Total Molar VOCs in µmol/L
		PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	
MW-2	4/16/1998	**240**	**250**	**190**	**390**	--	**9.33**
	May 1998	**11,600**	**330**	**270**	**300**	--	**78.3**
	5/27/1999	**7,000**	**480**	**130**	**93**	--	**48.2**
	12/5/1999	**818**	**1,190**	**542**	**381**	< 10	**23.6**
	1/6/2000	**4,210**	**1,460**	**677**	**141**	< 10	**45.0**
	2/8/2000	**4,180**	**1,480**	**1,010**	**86**	< 20	**47.9**
	3/7/2000	**3,360**	**825**	**2,350**	**100**	< 20	**52.0**
	6/14/2000	**3,870**	**3,550**	**2,050**	**145**	**180**	**75.9**
	9/11/2000	**635**	**1,580**	**7,900**	**323**	**1,230**	**120**
	12/6/2000	< 50	< 50	**1,370**	**300**	**433**	**24.5**
	6/5/2001	**92**	**159**	**672**	**130**	**145**	**12.4**
	3/6/2002	**274**	**1,790**	**1,210**	**135**	**197**	**32.3**
	8/12/2002	< 10	**109**	**1,150**	**112**	**152**	**16.3**
	9/9/2002	< 1	**4.5**	**410**	**110**	**77**	**6.63**
	4/10/2003	< 0.5	**51.0**	**60**	**120**	**14**	**2.47**
	4/15/2003	**101**	**488**	**486**	**140**	**110**	**12.5**
	10/27/2003	< 10	**120**	**234**	**347**	**114**	**8.76**
	10/12/2004	**13**	**238**	**2,000**	**1,030**	**632**	**43.3**
	7/6/2005	**7,730**	**3,040**	**1,520**	**302**	**254**	**92.6**
	9/17/2007	< 2	**9.7**	**780**	**498**	**301**	**18.1**
	5/30/2008	--	--	--	--	--	--
	8/12/2008	--	--	--	--	--	--
	11/10/2008	**5.0**	**890**	**2,200**	**1,200**	**400**	**48.3**
	5/14/2009	**710**	**2,400**	**1,200**	**340**	**140**	**40.7**
	2/18/2010	--	--	--	--	--	--
	12/15/2010	**377**	**829**	**1,160**	**509**	**363**	**31.6**
	8/17/2011	**312**	**1,460**	**1,170**	**384**	**279**	**33.5**
	11/26/2012	--	--	--	--	--	--
	7/23/2014	--	--	--	--	--	--
	4/16/2015	--	--	--	--	--	--
	4/27/2016	--	--	--	--	--	--
	10/18/2016	**3,090**	**1,130**	**2,050**	**448**	**221**	**56.5**
	4/19/2017	**692**	**2,060**	**2,370**	**641**	**329**	**56.2**
	10/20/2017	**1,450**	**1,040**	**2,360**	**825**	**656**	**60.0**
	4/19/2018	**1,600**	**261**	**315**	**15.3**	**3.02**	**15.1**
	10/10/2018	**1,390**	**2,220**	**3,660**	**1,490**	**508**	**86.5**
	4/17/2019	**1,200**	**218**	**305**	**9.57**	**0.87 J**	**12.2**
	10/15/2019	**1,630**	**991**	**1,500**	**491**	**185**	**40.9**
	4/20/2020	**1,380**	**169**	**206**	**7.70 J**	<50.0	**12.2**
	10/28/2020	**1,570**	**1,340**	**1,810**	**665**	**149**	**47.6**
	4/14/2021	**742**	**105**	**101**	**5.00 J**	<10.0	**6.4**
	10/25/2021	**1,170**	**886**	**1,580**	**545**	**251 J+**	**39.7**
	5/23/2022	**1170 J**	**161 J**	**149 J**	**6.00 J**	<1.00 UJ	**9.89 J**
	11/1/2022	**37.6 J**	**29.2 J**	**7,960**	**101**	**337**	**88.99**
	2/22/2023	**24.6 J**	<50.0	**2,270**	**28.7 J**	**595**	**33.57**

Table C-2
Groundwater Sampling Analytical Results: Chloroethene VOCs
Springdale Cleaners
Portland, Oregon

Monitoring Well ID	Sample Date	Analyte Concentration in µg/L					Total Molar VOCs in µmol/L
		PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	
MW-3	4/16/1998	< 1	< 1	< 1	< 1	--	< 1
	May 1998	**1.8**	< 1	< 1	< 1	--	**0.025**
	5/27/1999	< 1	< 1	< 1	< 1	--	< 1
	12/5/1999	< 1	**6.8**	**1.2**	< 1	< 1	**0.080**
	1/6/2000	--	--	--	--	--	--
	2/8/2000	--	--	--	--	--	--
	3/7/2000	--	--	--	--	--	--
	6/14/2000	--	--	--	--	--	--
	9/11/2000	--	--	--	--	--	--
	12/5/2000	< 1	< 1	< 1	< 1	< 1	< 1
	6/5/2001	--	--	--	--	--	--
	3/6/2002	--	--	--	--	--	--
	8/12/2002	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2002	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	4/10/2003	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	4/15/2003	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2003	< 1	< 1	< 1	< 1	< 1	< 1
	10/12/2004	< 1	< 1	< 1	< 1	< 1	< 1
	7/6/2005	< 1	< 1	< 1	< 1	< 1	< 1
	9/17/2007	< 1	< 1	< 1	< 1	< 1	< 1
	5/30/2008	--	--	--	--	--	--
	8/12/2008	--	--	--	--	--	--
	11/10/2008	--	--	--	--	--	--
	5/14/2009	--	--	--	--	--	--
	2/18/2010	--	--	--	--	--	--
	12/15/2010	--	--	--	--	--	--
	8/17/2011	--	--	--	--	--	--
	11/26/2012	--	--	--	--	--	--
	7/23/2014	--	--	--	--	--	--
	4/16/2015	--	--	--	--	--	--
	4/27/2016	--	--	--	--	--	--
	10/18/2016	--	--	--	--	--	--
	4/19/2017	--	--	--	--	--	--
	10/20/2017	--	--	--	--	--	--
	4/19/2018	--	--	--	--	--	--
	10/10/2018	--	--	--	--	--	--
	4/17/2019	--	--	--	--	--	--
	10/15/2019	--	--	--	--	--	--
	4/20/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
	10/28/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
	4/14/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
	10/25/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
	5/23/2022	<1.00 UJ	<1.00 UJ	<1.00 UJ	<1.00 UJ	<1.00 UJ	<1.00 UJ
	11/1/2022	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
	2/22/2023	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00

Table C-2
Groundwater Sampling Analytical Results: Chloroethene VOCs
Springdale Cleaners
Portland, Oregon

Monitoring Well ID	Sample Date	Analyte Concentration in µg/L					Total Molar VOCs in µmol/L
		PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	
MW-4	May 1998	**1,200**	**610**	**640**	**520**	--	**23.8**
	5/27/1999	**340**	**180**	**230**	**160**	--	**7.44**
	12/6/1999	**648**	**926**	**658**	**543**	--	**23.3**
	1/7/2000	**22.3**	**621**	**904**	**468**	< 5	**19.1**
	2/8/2000	**25.5**	**534**	**504**	**232**	< 5	**11.9**
	3/7/2000	**26.6**	**380**	**386**	**140**	< 5	**8.52**
	6/14/2000	**4.5**	**17.5**	**489**	**174**	**2.6**	**7.04**
	9/11/2000	< 5	**12.4**	**351**	**302**	**62.1**	**7.84**
	12/6/2000	< 5	< 5	**45.2**	**420**	**10.6**	**5.00**
	6/6/2001	**17.8**	**74.4**	**497**	**144**	**159**	**9.83**
	3/6/2002	**65**	**306**	**654**	**41.4**	**91.6**	**11.4**
	8/12/2002	**1**	**2.2**	**16.2**	**6.2**	**5.5**	**0.34**
	9/9/2002	< 0.5	**2.2**	**100**	**18**	**28**	**1.68**
	4/10/2003	< 1.3	**260**	**610**	**19**	**27**	**8.90**
	4/15/2003	**10.6**	**122**	**539**	**19.6**	**38**	**7.37**
	10/27/2003	< 1	**1.7**	**5.4**	**2.0**	< 1	**0.10**
	10/12/2004	< 1	< 1	**2.58**	**1.58**	**1.03**	**0.066**
	7/6/2005	< 1	< 1	**20.3**	**1.79**	**6.21**	**0.33**
	9/17/2007	< 1	< 1	**5.0**	**2.24**	**1.94**	**0.11**
	5/30/2008	--	--	--	--	--	--
	8/12/2008	--	--	--	--	--	--
	11/10/2008	--	--	--	--	--	--
	5/14/2009	--	--	--	--	--	--
	2/18/2010	--	--	--	--	--	--
	12/15/2010	--	--	--	--	--	--
	8/17/2011	--	--	--	--	--	--
	11/26/2012	--	--	--	--	--	--
	7/23/2014	--	--	--	--	--	--
	4/16/2015	--	--	--	--	--	--
	4/27/2016	--	--	--	--	--	--
	10/18/2016	--	--	--	--	--	--
	4/19/2017	--	--	--	--	--	--
	10/20/2017	--	--	--	--	--	--
	4/19/2018	--	--	--	--	--	--
	10/10/2018	--	--	--	--	--	--
	4/17/2019	--	--	--	--	--	--
	10/15/2019	--	--	--	--	--	--
	4/20/2020	**1.79**	**40.7**	**145**	**1.96**	**5.95**	**1.93**
	10/28/2020	<1.00	<1.00	**80.7**	**2.39**	**34.8**	**1.42**
	4/14/2021	**5.85 J+**	**71.7**	**137 J**	**0.923 J**	**3.57**	**2.06**
	10/25/2021	<5.00	**3.72 J**	**125**	**2.45 J**	**37.5 J+**	**1.96**
	5/23/2022	**5.48 J**	**64.4 J**	**115 J**	**1.39 J**	**3.55 J**	**1.78 J**
	11/1/2022	**1.16**	**0.937 J**	**482**	**10.1**	**158**	**7.62**
	2/22/2023	<1.00	<1.00	**18.8**	**0.554 J**	**25.3**	**0.61**
MW-5-10	5/29/2008	**85,900**	**4,760**	**14,600**	< 200	< 200	**707**

Please see notes at end of table.

Table C-2
Groundwater Sampling Analytical Results: Chloroethene VOCs
Springdale Cleaners
Portland, Oregon

Monitoring Well ID	Sample Date	Analyte Concentration in µg/L					Total Molar VOCs in µmol/L
		PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	
MW-5-20	5/29/2008	**30,000**	< 5,000	**457,000**	< 5,000	**9,900**	**5,098**
	11/10/2008	**14,000**	**2,500**	**540,000**	**3,000**	**15,000**	**5,945**
	5/14/2009	**320 J,HA,HP**	**77 HA,HP**	**700,000 HA,HP**	**3,300 HA,HP**	**21,000 HA,HP**	**7,599**
	12/15/2010	< 500	**26.7**	**420,000**	**3,220**	**21,600**	**4,713**
	8/16/2011	**6,250**	**6,680**	**618,000**	**4,620**	**44,700**	**7,226**
	11/26/2012	< 250	< 250	**120,000**	**1,900**	**30,000**	**1,739**
	7/22/2014	< 1,000	< 1,000	**590,000**	**1,400**	**16,000**	**6,363**
	4/16/2015	< 250	< 250	**1,500,000**	**2,600**	**33,000**	**16,029**
	4/27/2016	**1,480**	**272**	**679,000**	**3,040**	**38,400**	**7,661**
	10/18/2016	< 5,000	< 5,000	**486,000**	**2,960**	**23,400**	**5,452**
	4/19/2017	**2,420**	**381**	**530,000**	**3,860**	**42,300**	**6,201**
	10/19/2017	<10,000	<250	**554,000**	**2,920**	**26,000**	**6,192**
	4/18/2018	**1,800**	<10,000	**572,000**	**5,150**	**41,000**	**6,658**
	10/10/2018	<10,000	<10,000	**667,000**	<10,000	**38,900**	**7,622**
	4/17/2019	**1,320 E**	**96.8**	**683,000**	**2,470**	**32,900**	**7,606**
	10/15/2019	**1,600 E**	**169**	**747,000**	**4,530 E**	**41,400**	**8,426**
	4/21/2020	<10,000	<10,000	**670,000**	**3,440 J**	**38,000**	**7,623**
	10/29/2020	**11,700**	<10,000	**693,000**	<10,000	**63,000**	**8,317**
	4/14/2021	<10,000	<10,000	**605,000**	**3,050 J**	**55,500**	**7,228**
	10/26/2021	<10,000	<10,000	**647,000**	**3,830 J**	**37,300**	**7,378**
	5/24/2022	**29500 J**	**5660 J**	**658000 J**	**2390 J**	**24400 J**	**7423 J**
	10/31/2022	**41,800**	**3,140**	**614,000**	**3,690 J**	**84,900**	**8,006**
	2/27/2023	**5490 J**	<10,000	**593,000**	**2430 J**	**49,700**	**7,008**
MW-6-10	5/29/2008	**31,400**	**670**	**975**	< 500	< 500	**211**
MW-6-20	5/29/2008	**114,000**	**24,100**	**11,900**	< 1,000	< 1,000	**1,007**
	11/11/2008	**71,000**	**21,000**	**10,000**	< 1.0	**18**	**691**
	5/14/2009	**97,000 HA,HP**	**40000 HA,HP**	**7500 HA,HP**	**200 HA,HP**	**25 HA,HP**	**969**
	12/15/2010	**9,310**	**3,160**	**120,000**	**4,410**	**38.9**	**1,364**
	8/17/2011	**2,150**	**739**	**200,000**	**2,430**	**564**	**2,116**
	11/26/2012	**25,000**	**730**	**65,000**	**1,800**	**17,000**	**1,117**
	7/22/2014	< 500	< 500	**26,000**	**890**	**11,000**	**457**
	4/16/2015	**7,200**	**480**	**9,100**	**490**	**9,800**	**303**
	4/27/2016	**8.57**	**4.2**	**5,040**	**187**	**2,970**	**102**
	10/18/2016	**119 J**	< 200	**12,900**	**452**	**7,440**	**258**
	4/19/2017	< 200	< 200	**10,200**	**383**	**6,470**	**214**
	10/20/2017	**24.0 J**	**17.2 J**	**14,700**	**486**	**7,730**	**281**
	4/18/2018	**2,630**	**307**	**8,730**	**339**	**6,000**	**208**
	10/10/2018	**617**	**229**	**9,310**	**338**	**4,440**	**176**
	4/17/2019	**832**	**605**	**5,930**	**271**	**3,990**	**137**
	10/15/2019	**169**	**160**	**8,340**	**58.8**	**4,010**	**153**
	4/21/2020	**6,370**	**1,030**	**7,500**	**638**	**6,590**	**236**
	10/29/2020	**2,950**	**797**	**6,920**	**599**	**5,020**	**182**
	4/14/2021	**270**	**107**	**2,350**	**302**	**2,370**	**68**
	10/27/2021	**3,120**	**565**	**9,880**	**1,040**	**5,890**	**230**
	5/24/2022	**756 J**	**675 J**	**12600 J**	**1030 J**	**5620 J**	**240 J**
	10/31/2022	**591**	**877**	**7,030**	**252**	**4,680**	**160**
	2/22/2023	**1,520**	**817**	**5,430**	**84.9 J**	**3,140**	**123**

Table C-2
Groundwater Sampling Analytical Results: Chloroethene VOCs
Springdale Cleaners
Portland, Oregon

Monitoring Well ID	Sample Date	Analyte Concentration in µg/L					Total Molar VOCs in µmol/L
		PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	
MW-7	8/12/2008	**139,000**	**9,340**	**6,540**	< 2,000	< 2,000	**1,003**
	11/10/2008	**16,000**	**2,200**	**4,300**	**310**	**160**	**163**
	5/14/2009	**780**	**680**	**160,000**	**1,400**	**450**	**1,682**
	12/16/2010	< 100	**79**	**107,000**	**1,430**	**495**	**1,127**
	8/16/2011	< 100	< 100	**156,000**	**902**	**450**	**1,626**
	11/26/2012	**120**	**150**	**200,000**	**1,300**	**1,100**	**2,096**
	7/22/2014	< 2,000	< 2,000	**160,000**	**1,100**	**1,600**	**1,701**
	4/16/2015	**140**	**60 J**	**200,000**	**1,800**	**2,600**	**2,125**
	4/27/2016	< 50	**26.6 J**	**228,000**	**2,170**	**5,480**	**2,462**
	10/18/2016	< 50	**35 J**	**124,000**	**3,850**	**2,520**	**1,360**
	4/19/2017	**32.6 J**	**84.8**	**19,200**	**3,420**	**5,600**	**324**
	10/19/2017	<5,000	**3,060 J**	**209,000**	**2,910**	**6,400**	**2,327**
	4/18/2018	<1,000	<1,000	**197,000**	**2,220**	**6,300**	**2,163**
	10/10/2018	<1,000	<1,000	**160,000**	**2,290**	**5,510**	**1,769**
	4/17/2019	<1,000	<1,000	**181,000**	**2,010**	**7,280**	**2,011**
	10/15/2019	**19.8 J**	**15.7 J**	**209,000**	**1,960**	**2,940**	**2,223**
	4/21/2020	<5,000	<5,000	**214,000**	**2,620 J**	**7,170**	**2,383**
	10/29/2020	<5,000	<5,000	**155,000**	**1,700 J**	**4,330 J**	**1,720**
	4/14/2021	<5,000	<5,000	**132,000**	**1,470 J**	**5,400 J**	**1,497**
	10/26/2021	<5,000	<5,000	**171,000**	**2,410 J**	**6,540 J+**	**1,928**
	5/24/2022	<2,000 UJ	<2,000 UJ	**98800 J**	**1160 J**	**2540 J**	**1085 J**
	11/1/2022	<2,000	**436 J**	**90,100**	**912 J**	**1,830**	**977**
	2/27/2023	<2,000	<2,000	**148,000**	**1570 J**	<2,000	**1,572**
MW-8	8/12/2008	**221,000**	**6,640**	< 2,000	< 2,000	< 2,000	**1,420**
	11/10/2008	**170,000**	**4,300**	**3,600**	**150**	**120**	**1,098**
	5/14/2009	**2,300**	**33,000**	**100,000**	**1,200**	**44**	**1,310**
	12/16/2010	**563**	**1,810**	**95,500**	< 1.0	**504**	**1,010**
	8/16/2011	**3,870**	**4,470**	**114,000**	**630**	**337**	**1,245**
	11/26/2012	**73**	**1,100**	**95,000**	**840**	**2,500**	**1,037**
	7/22/2014	**17,000**	**6,600**	**95,000**	**700**	**660**	**1,150**
	4/28/2016	**85,100**	**9,400**	**44,400**	**356**	**335**	**1,052**
	10/18/2016	**74,300**	**11,400**	**37,900**	**382**	**234**	**933**
	4/19/2017	**106,000**	**7,210**	**26,500**	**299**	**95.3 J**	**972**
	10/19/2017	**117,000**	**10,900**	**29,800**	**351**	**141**	**1,102**
	4/18/2018	**136,000**	**8,770**	**25,300**	**297**	<1,000	**1,159**
	10/10/2018	**58,400**	**9,800**	**51,400**	**497 J**	**320 J**	**967**
	4/17/2019	**117,000**	**8,840**	**30,400**	**312**	**352 J**	**1,095**
	10/15/2019	**61,900**	**14,500**	**49,300**	<2,000	<2,000	**1,018**
	4/21/2020	**144,000**	**10,600**	**39,700**	**352 J**	<2,000	**1,378**
	10/29/2020	**94,300**	**9,380**	**43,700**	**498 J**	<2,000	**1,112**
	4/14/2021	**88,600 J+**	**20,400**	**77,100**	**766 J**	**862 J**	**1,507**
	10/26/2021	**63,200**	**4,700**	**39,900**	<2000	**1,140 J**	**857**
	5/24/2022	**125000 J**	**7790 J**	**43400 J**	**468 J**	<2,000 UJ	**1282 J**
	10/31/2022	**58,300**	**7,220**	**93,400**	**714**	**1,070 J**	**1,394**
	2/22/2023	**99,800**	**10,200**	**78,900**	**529 J**	<2,000	**1,515**

Please see notes at end of table.

Table C-2
Groundwater Sampling Analytical Results: Chloroethene VOCs
Springdale Cleaners
Portland, Oregon

Monitoring Well ID	Sample Date	Analyte Concentration in µg/L					Total Molar VOCs in µmol/L
		PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	
MW-9	2/18/2010	**17,000**	**28,000**	**11,000**	**95**	**90**	**432**
	12/16/2010	**3,880**	**16,200**	**12,800**	**984**	**278**	**293**
	8/16/2011	**11,700**	**26,800**	**23,000**	**780**	**700**	**531**
	7/22/2014	< 250	< 250	**26,000**	**1,100**	**6,800**	**390**
	4/16/2015	**22 J**	**77**	**22,000**	**1,500**	**9,900**	**402**
	4/27/2016	**6.43 J**	**36.7**	**20,000**	**1,340**	**10,700**	**392**
	10/18/2016	< 200	**87.2 J**	**13,100**	**1,020**	**5,130**	**229**
	4/19/2017	< 200	< 200	**10,400**	**881**	**7,990**	**246**
	10/20/2017	**20.7**	**33.4**	**11,300**	**865**	**9,200**	**273**
	4/18/2018	<200	<200	**8,210**	**799**	**8,980**	**238**
	10/10/2018	<200	<200	**6,670**	**640**	**5,590**	**166**
	4/17/2019	<200	<200	**5,010**	**599**	**6,200**	**158**
	10/15/2019	<10.0	**9.38 J**	**3,050**	**417**	**5,360**	**122**
	4/21/2020	<100	<100	**1,740**	**315**	**2,800**	**67**
	10/29/2020	<100	<100	**1,460**	**216**	**1,840**	**47**
	4/14/2021	**383**	**63.8 J**	**1,290**	**140**	**1,020**	**34**
	10/27/2021	<5.00	**1.65 J**	**127**	**34.2**	**154**	**4.2**
	5/24/2022	**8.32 J**	**1.92 J**	**53.2 J**	**33.1 J**	**48.1 J**	**1.72 J**
	10/31/2022	**0.704 J**	**2.76**	**54.3**	**37.8**	**30.1**	**1.46**
	2/22/2023	<1.00	**2.06**	**31.5**	**25.4**	**23.1**	**0.98**
Average Concentration							
	May 1999	**25,038**	**1,510**	**151**	**47**	**0.50**	**165**
	December 1999	**15,768**	**1,854**	**1,116**	**563**	**330**	**130**
	January 2000	**16,617**	**2,302**	**1,374**	**654**	**336**	**144**
	February 2000	**19,709**	**2,439**	**1,588**	**698**	**353**	**167**
	March 2000	**20,446**	**3,048**	**1,931**	**646**	**399**	**179**
	June 2000	**6,988**	**6,815**	**6,833**	**615**	**339**	**176**
	September 2000	**17,613**	**2,078**	**17,773**	**873**	**736**	**326**
	December 2000	**13,517**	**1,361**	**12,741**	**819**	**493**	**240**
	June 2001	**22,041**	**818**	**8,497**	**717**	**2,066**	**267**
	March 2002	**17,356**	**826**	**6,889**	**694**	**1,804**	**218**
	August 2002	**8,307**	**718**	**8,053**	**519**	**816**	**157**
	September 2002	**5,399**	**426**	**9,972**	**679**	**1,145**	**164**
	April 10, 2003	**6,760**	**636**	**9,996**	**513**	**921**	**169**
	April 15, 2003	**9,283**	**659**	**7,878**	**626**	**1,064**	**166**
	October 2003	**8,236**	**629**	**4,750**	**524**	**1,018**	**125**
	October 2004	**13,536**	**410**	**8,164**	**726**	**1,683**	**203**
	July 2005	**15,478**	**798**	**5,579**	**601**	**1,745**	**191**
	September 2007	**11,808**	**465**	**1,804**	**487**	**818**	**112**
	May 2008	**40,500**	**4,357**	**54,999**	**836**	**1,800**	**882**
	November 2008	**31,920**	**3,761**	**57,172**	**826**	**2,101**	**853**
	May 2009	**16,312**	**10,019**	**99,571**	**991**	**2,657**	**1,255**
	December 2010	**1,328**	**2,037**	**80,096**	**1,391**	**2,587**	**905**
	August 2011	**2,487**	**3,921**	**121,101**	**1,279**	**5,863**	**1,401**
	November 2012	**4,337**	**395**	**185,850**	**1,923**	**18,433**	**2,261**
	July 2014	**3,057**	**1,571**	**135,500**	**1,221**	**8,509**	**1,577**
	April 2015	**1,253**	**131**	**297,033**	**1,403**	**16,300**	**1,577**
	April 2016	**12,378**	**1,396**	**144,231**	**1,259**	**12,111**	**1,780**
	October 2016	**10,094**	**1,938**	**93,716**	**1,401**	**7,590**	**1,178**
	April 2017	**13,676**	**1,247**	**77,669**	**1,402**	**11,277**	**1,088**
	October 2017	**15,765**	**1,898**	**105,354**	**1,216**	**8,917**	**1,351**
	April 2018	**17,842**	**1,880**	**103,512**	**1,295**	**10,200**	**1,366**
	October 2018	**8,264**	**2,244**	**114,660**	**1,429**	**7,875**	**1,390**
	April 2019	**15,122**	**1,423**	**116,872**	**805**	**7,430**	**1,435**
	October 2019	**7,258**	**1,761**	**115,145**	**1,064**	**7,411**	**1,374**
	April 2020	**11,386**	**1,392**	**68,176**	**590**	**4,519**	**861**
	October 2020	**8,084**	**1,366**	**64,984**	**637**	**5,603**	**826**
	April 2021	**7,026**	**2,034**	**59,539**	**464**	**5,293**	**762**
	October 2021	**5,364**	**979**	**63,441**	**664**	**4,135**	**767**
	May 2022	**11,257**	**1,104**	**59,293**	**415**	**2,943**	**739**
	October 2022	**7,276**	**840**	**58,686**	**438**	**6,858**	**770**
	February 2023	**7,705**	**1,219**	**59,361**	**368**	**4,178**	**739**

Please see notes at end of table.

Table C-2
Groundwater Sampling Analytical Results: Chloroethene VOCs
Springdale Cleaners
Portland, Oregon

Notes:
µg/L = Micrograms per Lite
PCE = Tetrachloroethene
TCE = Trichloroethene
DCE = Dichloroethene
VOCs = Volatile Organic C
µmol/L = Mircomoles per L
< = Not Detected Above the Method Rep
ND = Not Detected
-- = Not Analyzed
Bolded concentrations indicate detected concentration
J = Data results are estimated values. Concentrations associated wit
HA = Method analytical hold time exceed
HP = Method analytical preparation time
E = The analyte concentration exceeds the upper limit of the calibration range. Data results are estimated.
J+ = Data results are estimated values and may be biased high.

Table C-3
Groundwater Sampling Analytical Results: Dissolved Gases
Springdale Cleaners
Portland, Oregon

Monitoring Well ID	Sample Date	Analyte Concentration in µg/L		
		Methane	Ethane	Ethene
MW-5-20	4/21/2020	**2,140**	**54.1**	**7,790**
	10/29/2020	**2,890**	**65.6**	**10,300**
	4/14/2021	--	--	--
	10/26/2021	--	--	--
	5/24/2022	--	--	--
	11/1/2022	--	--	--
	2/27/2023	--	--	--
MW-7	4/21/2020	**8,770**	**17.9**	**5,740**
	10/29/2020	**4,250**	**12.8 J**	**3,830**
	4/14/2021	**18,900**	**89.9**	**11,800**
	10/26/2021	**6,650**	**19.7**	**4,560**
	5/24/2022	**8,840**	**21.2**	**6,590**
	11/1/2022	**1,660**	**<13.0**	**1,130**
	2/27/2023	**11,700**	**48.0**	**7,060**
MW-8	4/21/2020	**752**	**<10.0**	**46**
	10/29/2020	**2,150**	**<13.0**	**103**
	4/14/2021	**3,110**	**<13.0**	**227**
	10/26/2021	**835**	**<13.0**	**64**
	5/24/2022	--	--	--
	11/1/2022	--	--	--
	2/27/2023	--	--	--
MW-9	4/21/2020	--	--	--
	10/29/2020	--	--	--
	4/14/2021	--	--	--
	10/26/2021	--	--	--
	5/24/2022	**13,700**	**367.0**	**1,360**
	10/31/2022	**6,470**	**130.0**	**553**
	2/22/2023	**11,600**	**241.0**	**399**

Notes:
µg/L = Micrograms per Liter
< = Not Detected Above the Method Reporting Limit
ND = Not Detected
-- = Not Analyzed
Bolded concentrations indicate detected concentration of listed analyte.
J = Data results are estimated values. Concentrations associated with this qualifier are approximate.

Table C-4
Ambient Air Sampling Analytical Results
Springdale Cleaners
Portland, Oregon

Sample	Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	Total Molar VOCs
		Concentrations in µg/m^3					µmol/m^3
Indoor Air Samples - East Building							
Springdale Cleaners	12/7/1999	**6,500**	**32**	ND	ND	ND	**39.4**
6337	6/16/2000	**3,300**	**6.6**	<1	<1	<1	**19.9**
	6/24/2000	**810**	**3.2**	<1	<1	<1	**4.91**
	6/24/2000	**690**	**2.8**	<1	<1	<1	**4.18**
	6/5/2001	**5,100**	**13**	ND	ND	NA	**30.9**
	11/14/2007	**51**	**470**	<0.67	<3.3	<0.21	**3.83**
	6/9/2009	**1.8**	**1**	**0.19**	<0.04	<0.04	**0.020**
	10/26/2009	**18**	**43**	**2.8**	< 0.079	< 0.051	**0.460**
	5/11/2010	**1.5**	**12**	< 0.079	< 0.079	< 0.051	**0.099**
	10/10/2010	**56**	**47**	**3.5**	< 0.079	< 0.92	**0.726**
	4/22/2011	**6.8**	**0.7**	<0.079	<0.079	<0.051	**0.046**
	8/16/2011	**1.5**	**5.6**	< 0.067	--	< 0.043	**0.051**
	6/6/2012	< 5.3	< 4.2	< 3.1	< 3.1	< 2.0	ND
	10/16/2013	**17**	**2.0**	< 0.79	< 0.79	< 0.51	**0.118**
	1/21/2014	**20**	**3.2**	< 0.79	< 0.79	< 0.51	**0.145**
	7/22/2014	**2.0**	**2.0**	< 0.79	< 0.79	< 0.51	**0.027**
	12/2/2014	**33**	**19**	< 0.79	< 0.79	< 0.51	**0.341**
	4/16/2015	**49**	**16**	< 0.79	< 0.79	< 0.51	**0.415**
	11/3/2015	**13.5**	**8.79**	< 0.79	< 0.79	< 0.51	**0.147**
	4/26/2016	**35.1**	**4.87**	< 0.79	< 0.79	< 0.51	**0.248**
	10/17/2016	**1.82**	**3.45**	< 0.793	< 0.793	< 0.511	**0.037**
	4/18/2017	<1.36	**1.44**	<0.793	<0.793	<0.511	**0.011**
	10/18/2017	<1.36	**1.57**	<0.793	<0.793	<0.511	**0.012**
	4/17/2018	<1.36	**1.33**	<0.793	<0.793	<0.511	**0.010**
	10/11/2018	<1.36	<1.07	<0.793	<0.793	<0.511	ND
	4/4/2019	**1.40**	**2.02**	<0.793	<0.793	<0.511	**0.024**
	10/14/2019	<1.36	**1.63**	<0.793	<0.793	<0.511	**0.012**
	10/29/2020	**1.97**	**2.94**	<0.793	<0.793	<0.511	**0.034**
	4/14/2021	**22.1**	**34.8**	<0.793	<0.793	<0.511	**0.394**
	10/25/2021	**18.5**	**33.8**	<3.17	<3.17	<2.04	**0.365**
	5/27/2022	**2.76**	<1.07	<0.793	<0.793	<0.511	**0.017**
	10/31/2022	**17.2**	<1.07	<0.793	<0.793	<0.511	**0.104**
	2/28/2023	*Sample Not Analyzed - Insufficient Volume Due to Equipment Failure*					
State Farm Insurance	5/1/1999	**137.8**	NA	NA	NA	NA	**0.831**
6335A	5/1/1999	**69.9**	NA	NA	NA	NA	**0.422**
	12/7/1999	**120**	ND	ND	ND	ND	**0.724**
	6/16/2000	**240**	**2.9**	**1.0**	<1	<1	**1.48**
	6/24/2000	**200**	**2.3**	<1	<1	<1	**1.22**
	11/14/2007	**61**	**2.8**	**0.31**	<0.69	<0.045	**0.392**
	6/9/2009	**30**	**3.4**	**14**	**0.28**	**0.11**	**0.355**
	10/26/2009	**44**	**3.8**	**16**	**0.31**	**0.41**	**0.469**
	5/11/2010	**3.9**	**1.0**	**2.9**	< 0.079	**0.061**	**0.062**
	10/10/2010	**19**	**1.7**	**1.9**	< 0.079	< 0.051	**0.147**
	4/22/2011	**24**	**1.6**	**4.8**	<0.079	<0.051	**0.206**
	8/16/2011	**29.9**	**1.2**	**2.5**	--	< 0.045	**0.215**
	6/6/2012	**16.7**	**0.93**	< 1.4	< 1.4	< 0.44	**0.108**
	10/16/2013	**4.1**	< 1.1	< 0.79	< 0.79	< 0.51	**0.025**
	1/21/2014	**6.8**	< 1.1	**2.2**	< 0.79	< 0.51	**0.064**
	7/22/2014	**1.9**	< 1.1	< 0.79	< 0.79	< 0.51	**0.011**
	12/2/2014	< 1.4	< 1.1	< 0.79	< 0.79	< 0.51	ND
	4/16/2015	**2.9**	< 1.1	**2.7**	< 0.79	< 0.51	**0.045**
	11/3/2015	**6.5**	< 1.1	**2.4**	< 0.79	< 0.51	**0.064**
	4/26/2016	**35.8**	**3.13**	**32.0**	< 0.79	< 0.51	**0.569**
	10/17/2016	**4.92**	< 1.07	**1.64**	< 0.793	< 0.511	**0.047**
	4/18/2017	**4.00**	<1.07	**7.68**	<0.793	<0.511	**0.103**
	10/18/2017	**3.62 B**	<1.07	**1.29**	<0.793	<0.511	**0.035**
	4/17/2018	**2.03**	<1.07	<0.793	<0.793	<0.511	**0.012**
	10/11/2018	**2.85**	**1.22**	<0.793	<0.793	<0.511	**0.026**
	4/4/2019	**2.41**	<1.07	**3.19**	<0.793	<0.511	**0.047**
	10/14/2019	**2.26**	<1.07	<0.793	<0.793	<0.511	**0.014**
	10/29/2020	**2.55**	<1.07	<0.793	<0.793	<0.511	**0.015**
	4/14/2021	*Sample Not Collected - Tenant was not at Site.*					
	10/25/2021	**1.72**	<1.07	<0.793	<0.793	<0.511	**0.010**
	5/27/2022	**7.47**	**1.99**	**17.8**	<0.793	<0.511	**0.244**
	10/31/2022	**2.67**	<1.07	<0.793	<0.793	<0.511	**0.016**
	2/28/2023	**4.11**	<1.07	**14.0**	<0.793	<0.511	**0.169**

Please see notes at end of table.

Table C-4
Ambient Air Sampling Analytical Results
Springdale Cleaners
Portland, Oregon

Sample	Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	Total Molar VOCs
		Concentrations in µg/m^3					µmol/m^3
Key Bank (Rear)	12/7/1999	**470**	**2**	ND	ND	ND	**2.85**
6335B2	6/16/2000	**440**	**4.4**	**1.3**	<1	<1	**2.70**
	6/5/2001	**180**	ND	ND	ND	NA	**1.09**
	11/14/2007	**110**	**4.6**	**0.59**	<0.67	<0.043	**0.70**
	6/9/2009	**95**	**9.1**	**37**	**0.63**	**0.27**	**1.03**
	10/26/2009	**81**	**5.3**	**15**	**0.3**	**0.36**	**0.692**
	5/11/2010	**4.1**	**0.96**	**2.5**	< 0.079	**0.056**	**0.059**
	10/10/2010	< 0.14	< 0.11	< 0.079	< 0.079	< 0.11	ND
	4/22/2011	**81**	**3.0**	**6.3**	**0.14**	**0.095**	**0.579**
	8/16/2011	**36.7**	**0.89**	**2.6**	--	< 0.045	**0.255**
	6/6/2012	**23.4**	< 0.89	< 1.3	< 1.3	< 0.42	**0.141**
	11/30/2012	**56**	**1.1**	**4.0**	< 0.79	< 0.51	**0.387**
	10/16/2013	**7.5**	< 1.1	< 0.79	< 0.79	< 0.51	**0.045**
	1/21/2014	**12**	< 1.1	**1.7**	< 0.79	< 0.51	**0.090**
	7/22/2014	**4.8**	< 1.1	< 0.79	< 0.79	< 0.51	**0.029**
	12/2/2014	**15**	< 1.1	< 0.79	< 0.79	< 0.51	**0.090**
	4/16/2015	**7.5**	< 1.1	**2.1**	< 0.79	< 0.51	**0.067**
	11/3/2015	**14.6**	< 1.1	**1.8**	< 0.79	< 0.51	**0.107**
	4/26/2016	**44.7**	**3.51**	**39.6**	< 0.79	< 0.51	**0.704**
	10/17/2016	**12.1**	< 1.07	**1.34**	< 0.793	< 0.511	**0.087**
	4/18/2017	**7.73**	<1.07	**6.70**	<0.793	<0.511	**0.116**
	10/18/2017	**7.16**	<1.07	**0.894**	<0.793	<0.511	**0.052**
	4/17/2018	**18.0**	<1.07	<0.793	<0.793	<0.511	**0.109**
	10/11/2018	**5.18**	**1.11**	<0.793	<0.793	<0.511	**0.040**
	4/4/2019	**6.10**	<1.07	**3.23**	<0.793	<0.511	**0.070**
	10/15/2019	**5.58**	<1.07	<0.793	<0.793	<0.511	**0.034**
	10/29/2020	**6.05**	<1.07	<0.793	<0.793	<0.511	**0.036**
	4/12/2021	**6.25**	<1.07	**1.97**	<0.793	<0.511	**0.058**
	10/25/2021	**5.64**	**1.13**	<0.793	<0.793	<0.511	**0.042**
	5/27/2022	**8.76**	**2.27**	**25.0**	<0.793	<0.511	**0.328**
	11/1/2022	**4.94**	<1.07	<0.793	<0.793	<0.511	**0.030**
	2/28/2023	*Sample Not Analyzed - Insufficient Volume Due to Equipment Failure*					
Key Bank (Front)	12/7/1999	**220**	ND	ND	ND	ND	**1.33**
6335B1	6/16/2000	**270**	**3.7**	**0.86**	<1	<1	**1.66**
	6/5/2001	**170**	ND	ND	ND	NA	**1.03**
	11/14/2007	**75**	**3.2**	**0.7**	<0.59	<0.038	**0.483**
	6/9/2009	**74**	**8.3**	**34**	**0.58**	**0.25**	**0.869**
	10/26/2009	**37**	**3.3**	**12**	**0.24**	**0.31**	**0.379**
	5/11/2010	**3.1**	**1.0**	**1.8**	< 0.079	**0.061**	**0.046**
	10/10/2010	**0.66**	< 0.11	**0.10**	< 0.079	< 0.051	**0.005**
	4/22/2011	**9.5**	**1.2**	**3.9**	<0.079	**0.066**	**0.108**
	8/16/2011	**31.1**	**0.95**	**2.2**	--	< 0.045	**0.217**
Filter Installed	6/6/2012	**13.2**	< 0.92	< 1.4	< 1.4	< 0.44	**0.080**
	11/30/2012	**36**	< 1.1	**1.1**	< 0.79	< 0.51	**0.228**
	10/16/2013	**3.8**	< 1.1	< 0.79	< 0.79	< 0.51	**0.023**
	1/21/2014	**2.2**	< 1.1	< 0.79	< 0.79	< 0.51	**0.013**
	7/22/2014	**1.6**	< 1.1	< 0.79	< 0.79	< 0.51	**0.010**
Filter Replaced	12/2/2014	< 1.4	< 1.1	< 0.79	< 0.79	< 0.51	**ND**
	4/16/2015	**3.1**	< 1.1	**3.4**	< 0.79	< 0.51	**0.054**
	11/3/2015	**5.1**	< 1.1	**1.7**	< 0.79	< 0.51	**0.048**
Filter Replaced	4/26/2016	**31**	**2.91**	**32.7**	< 0.79	< 0.51	**0.546**
	10/17/2016	**4.55**	< 1.07	**1.25**	< 0.793	< 0.511	**0.040**
	4/18/2017	**2.74**	<1.07	**5.27**	<0.793	<0.511	**0.071**
	10/18/2017	**3.21 B**	<1.07	<0.793	<0.793	<0.511	**0.019**
	4/17/2018	**1.61**	<1.07	<0.793	<0.793	<0.511	**0.010**
	10/11/2018	**2.36**	<1.07	<0.793	<0.793	<0.511	**0.014**
	4/4/2019	**2.40**	<1.07	**3.04**	<0.793	<0.511	**0.046**
	10/15/2019	**3.94**	<1.07	<0.793	<0.793	<0.511	**0.024**
	10/29/2020	**1.79**	<1.07	<0.793	<0.793	<0.511	**0.011**
	4/12/2021	<1.36	<1.07	**1.73**	<0.793	<0.511	**0.018**
	10/25/2021	**1.72**	<1.07	<0.793	<0.793	<0.511	**0.010**
	5/27/2022	**7.81**	**1.89**	<0.793	<0.793	<0.511	**0.061**
	10/31/2022	**6.16**	**6.48**	**0.939**	<0.793	<0.511	**0.095**
	2/28/2023	**3.37**	<1.07	8.72	<0.793	<0.511	**0.110**

Please see notes at end of table.

Table C-4
Ambient Air Sampling Analytical Results
Springdale Cleaners
Portland, Oregon

Sample	Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	Total Molar VOCs
		Concentrations in µg/m^3					µmol/m^3
Indoor Air Samples - West Building							
Hillsdale Veterinary Clinic 6359	6/5/2001	**26**	ND	ND	ND	NA	**0.157**
	11/14/2007	**8.1**	**0.74**	<0.17	<0.85	<0.055	**0.054**
	6/9/2009	**12**	**1.5**	**1.5**	<0.16	<0.16	**0.099**
	10/26/2009	**26**	**3.1**	**3.1**	< 0.32	< 0.20	**0.212**
	5/11/2010	**0.55**	< 0.11	**0.25**	< 0.079	< 0.051	**0.006**
	10/10/2010	**0.95**	**0.20**	**0.24**	< 0.079	< 0.051	**0.010**
	4/22/2011	**0.54**	<0.11	<0.079	<0.079	<0.051	**0.003**
	8/16/2011	**0.51**	**0.18**	**0.076**	--	< 0.35	**0.005**
	6/6/2012	< 1.0	< 0.82	< 1.2	< 1.2	< 0.39	ND
	10/16/2013	**1.5**	< 1.1	< 0.79	< 0.79	< 0.51	**0.009**
	1/21/2014	< 1.4	< 1.1	< 0.79	< 0.79	< 0.51	ND
	7/22/2014	< 1.4	< 1.1	< 0.79	< 0.79	< 0.51	ND
	12/2/2014	< 1.4	< 1.1	< 0.79	< 0.79	< 0.51	ND
	4/16/2015	< 1.4	< 1.1	< 0.79	< 0.79	< 0.51	ND
	11/3/2015	**2.1**	< 1.1	< 0.79	< 0.79	< 0.51	**0.012**
	4/26/2016	< 1.4	< 1.1	< 0.79	< 0.79	< 0.51	ND
	10/17/2016	< 1.36	< 1.07	< 0.793	< 0.793	< 0.511	ND
	4/18/2017	--	--	--	--	--	--
	10/18/2017	<1.36	<1.07	<0.793	<0.793	<0.511	ND
	4/17/2018	<1.36	<1.07	**2.52**	<0.793	<0.511	**0.026**
	10/11/2018	<1.36	<1.07	<0.793	<0.793	<0.511	ND
	4/4/2019	**3.02**	<1.07	<0.793	<0.793	<0.511	**0.018**
	10/14/2019	**1.43**	<1.07	<0.793	<0.793	<0.511	**0.009**
	10/29/2020	--	--	--	--	--	--
	4/12/2021	**1.73**	**2.61**	<0.793	<0.793	<0.511	**0.030**
	10/26/2021	**3.73**	<1.07	<0.793	<0.793	<0.511	**0.022**
	5/27/2022	**1.55**	<1.07	<0.793	<0.793	<0.511	**0.009**
	10/31/2022	**5.03**	<1.07	<0.793	<0.793	<0.511	**0.030**
	2/28/2023	**6.56**	<1.07	<0.793	<0.793	<0.511	**0.040**
OmBase Yoga 6357	12/7/1999	**58**	**3.6**	ND	ND	ND	**0.377**
	12/7/1999	**59**	**3.7**	ND	ND	ND	**0.384**
	6/16/2000	**74**	**2.8**	<1	<1	<1	**0.467**
	6/24/2000	**63**	**3.9**	<1	<1	<1	**0.409**
	6/5/2001	**50**	ND	ND	ND	NA	**0.302**
	11/14/2007	**71**	**5.4**	**0.59**	<0.58	<0.037	**0.475**
	6/9/2009	**18**	**2.1**	**1.7**	<0.037	<0.037	**0.142**
	10/26/2009	**26**	**3.1**	**2.2**	< 0.079	< 0.051	**0.203**
	5/11/2010	**16**	**2.9**	**2.2**	< 0.079	< 0.051	**0.141**
	10/10/2010	**75**	**8.0**	**4.8**	**0.16**	< 0.051	**0.563**
	4/22/2011	**25**	**4.0**	**3.6**	<0.079	<0.051	**0.218**
	8/16/2011	**66.6**	**7.2**	**3.3**	--	< 0.041	**0.490**
Filter Installed	6/6/2012	**16**	**3.2**	**1.9**	< 1.5	< 0.48	**0.140**
(Studio)	11/30/2012	< 1.4	< 1.1	< 0.79	< 0.79	< 0.51	ND
(Lobby)	11/30/2012	**1.4**	< 1.1	< 0.79	< 0.79	< 0.51	**0.008**
Filter Replaced	10/16/2013	**5.6**	< 1.1	< 0.79	< 0.79	< 0.51	**0.034**
	1/21/2014	**8.8**	**1.4**	**1.1**	< 0.79	< 0.51	**0.075**
	7/22/2014	**20**	**3.7**	**2.9**	< 0.79	< 0.51	**0.178**
Filter Replaced	12/2/2014	< 1.4	< 1.1	< 0.79	< 0.79	< 0.51	ND
	4/16/2015	< 1.4	< 1.1	< 0.79	< 0.79	< 0.51	ND
	11/3/2015	<1.4	< 1.1	< 0.79	< 0.79	< 0.51	ND
Filter Missing	4/26/2016	**2.66**	< 1.07	**0.822**	< 0.79	< 0.51	**0.025**
	10/17/2016	**2.01**	< 1.07	< 0.793	< 0.793	< 0.511	**0.012**
	4/18/2017	**3.64**	<1.07	**2.08**	<0.793	<0.511	**0.043**
	10/18/2017	<1.36	<1.07	**0.863**	<0.793	<0.511	**0.009**
	4/17/2018	**1.79**	<1.07	**2.25**	<0.793	<0.511	**0.034**
	11/1/2018	<1.36	<1.07	<0.793	<0.793	<0.511	ND
	4/4/2019	**3.10**	<1.07	**3.73**	<0.793	<0.511	**0.057**
	10/14/2019	<1.36	<1.07	<0.793	<0.793	<0.511	ND
	10/29/2020	--	--	--	--	--	--
	4/14/2021	*Sample Not Collected - Tenant was not at Site.*					--
	10/26/2021	*Sample Not Collected - Tenant was not at Site.*					--
	5/27/2022	**20.6**	**4.15**	**10.7**	<0.793	<0.511	**0.266**
	10/31/2022	**12.2**	**3.27**	**2.82**	<0.793	<0.511	**0.127**
	2/28/2023	**12.3**	**3.54**	**3.19**	<0.793	**1.35**	**0.155**

Table C-4
Ambient Air Sampling Analytical Results
Springdale Cleaners
Portland, Oregon

Sample	Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	Total Molar VOCs
		Concentrations in µg/m^3					µmol/m^3
BE Salon [North]	11/14/2007	**10**	**1.3**	**0.43**	<0.53	<0.034	**0.074**
(Formerly Bellamie	6/9/2009	**13**	**2**	**1.6**	<0.059	<0.059	**0.110**
Studios)	10/26/2009	**4.3**	**0.91**	**4**	< 0.079	< 0.051	**0.074**
6351	5/11/2010	**1.4**	**0.33**	**0.75**	< 0.079	< 0.051	**0.019**
	10/10/2010	**19**	**4.0**	**3.5**	< 0.079	< 0.051	**0.181**
	4/22/2011	**42**	**8.6**	**13**	**0.15**	<0.051	**0.453**
	8/17/2011	**7.1**	**17.3**	**2.2**	--	< 0.043	**0.195**
	6/6/2012	< 1.6	< 1.3	< 1.9	< 1.9	< 0.62	ND
	11/30/2012	**1.4**	< 1.1	**1.1**	< 0.79	< 0.51	**0.020**
	10/16/2013	**9.5**	**1.6**	**1.6**	< 0.79	< 0.51	**0.086**
	1/21/2014	**3.7**	< 1.1	< 0.79	< 0.79	< 0.51	**0.022**
	7/22/2014	< 1.4	< 1.1	< 0.79	< 0.79	< 0.51	ND
	12/2/2014	< 1.4	< 1.1	< 0.79	< 0.79	< 0.51	ND
	4/16/2015	**0.22**	< 0.11	**0.35**	< 0.079	< 0.051	**0.005**
	11/3/2015	**1.62**	< 1.1	< 0.79	< 0.79	< 0.51	**0.010**
	4/26/2016	**1.54**	**0.459**	**1.93**	< 0.79	< 0.51	**0.033**
	10/17/2016	**3.35**	< 1.07	< 0.793	< 0.793	< 0.511	**0.020**
	4/19/2017	**6.21**	**2.35**	<0.793	<0.793	<0.511	**0.055**
	10/18/2017	*Sample Not Collected - Duplicate with BE Salon South*					--
	4/17/2018	**3.91**	<1.07	**2.71**	<0.793	<0.511	**0.052**
	10/11/2018	**1.96**	<1.07	<0.793	<0.793	<0.511	**0.012**
	4/8/2019	**1.71**	<1.07	**5.24**	<0.793	<0.511	**0.064**
	10/15/2019	**7.13**	**1.21**	**1.32**	<0.793	**1.04**	**0.082**
	10/29/2020	--	--	--	--	--	--
	4/12/2021	**20.8**	**6.32**	**33.1**	<0.793	<0.511	**0.514**
	4/28/2021	**24.2**	**6.75**	**21.5**	<0.793	<0.511	**0.418**
	10/28/2021	**8.28**	**2.31**	**10.1**	<0.793	<0.511	**0.171**
	5/27/2022	**51.7**	**10.4**	**44.4**	<0.793	**1.38**	**0.870**
	10/31/2022	**20.1**	**5.41**	**8.6**	<0.793	<0.511	**0.250**
	2/28/2023	**2.66**	**2.07**	**1.54**	<0.793	<0.511	**0.047**
BE Salon [South]	6/16/2000	**6.2**	<1	<1	<1	<1	**0.037**
(Former Cuts and	6/24/2000	--	--	--	--	--	--
Chemistry)	6/5/2001	**30**	ND	ND	ND	NA	**0.181**
6349	6/9/2009	**14**	**2.1**	**1.4**	<0.041	<0.041	**0.115**
	10/26/2009	**20**	**3.2**	**1.9**	< 0.079	< 0.051	**0.164**
	6/9/2010	**13**	**3.3**	**5.2**	**0.1**	< 0.051	**0.158**
	10/10/2010	< 0.14	< 0.11	< 0.079	< 0.079	< 0.11	ND
	4/22/2011	**26**	**5.9**	**6.3**	<0.079	<0.051	**0.266**
	8/20/2011	**31.4**	**4.7**	**3.2**	--	< 0.060	**0.258**
	6/6/2012	**23.5**	**8.6**	**14.3**	< 1.6	< 0.52	**0.354**
	11/30/2012	**14**	< 1.1	< 0.79	< 0.79	< 0.51	**0.084**
	10/16/2013	**9.5**	**1.5**	**1.4**	< 0.79	< 0.51	**0.083**
	1/21/2014	**5.9**	**1.2**	**1.8**	< 0.79	< 0.51	**0.063**
	7/22/2014	**2.2**	< 1.1	< 0.79	< 0.79	< 0.51	**0.013**
	12/2/2014	< 1.4	< 1.1	< 0.79	< 0.79	< 0.51	ND
	4/16/2015	--	--	--	--	--	--
	11/3/2015	**4.3**	< 1.1	**2.25**	< 0.79	< 0.51	**0.049**
	4/26/2016	**16.3**	**4.2**	**8.52**	< 0.79	< 0.51	**0.218**
	10/17/2016	**5.61**	< 1.07	< 0.793	< 0.793	< 0.511	**0.034**
	4/19/2017	**5.88**	**1.48**	<0.793	<0.793	<0.511	**0.047**
	10/18/2017	**4.48 B**	**1.07**	**2.07**	<0.793	<0.511	**0.056**
	4/17/2018	**2.18**	<1.07	<0.793	<0.793	<0.511	**0.013**
	10/11/2018	<1.36	<1.07	**1.27**	<0.793	<0.511	**0.013**
	4/8/2019	**1.41**	<1.07	**2.93**	<0.793	<0.511	**0.039**
	10/15/2019	**2.80**	<1.07	<0.793	<0.793	**0.818**	**0.030**
	10/29/2020	--	--	--	--	--	--
	4/12/2021	**13.6**	**31.1**	**14.4**	<0.793	<0.511	**0.464**
	4/18/2021	**13.9**	**5.07**	**9.51**	<0.793	<0.511	**0.220**
	10/28/2021	**7.47**	**2.08**	**10.1**	<0.793	<0.511	**0.165**
	5/27/2022	**17.1**	**3.72**	**13.6**	<0.793	<0.511	**0.271**
	10/31/2022	**21.2**	**5.84**	**8.84**	<0.793	<0.511	**0.263**
	2/28/2023	<1.07	**1.96**	**1.49**	<0.793	<0.511	**0.030**

Please see notes at end of table.

Table C-4
Ambient Air Sampling Analytical Results
Springdale Cleaners
Portland, Oregon

Sample	Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	Total Molar VOCs
		Concentrations in µg/m^3					µmol/m^3
Outdoor Ambient	2/16/2010	**0.36**	**0.25**	**0.18**	< 0.079	< 0.051	**0.006**
	10/16/2013	< 1.4	< 1.1	< 0.79	< 0.79	< 0.51	ND
	1/21/2014	< 2.7	< 2.1	< 1.6	< 1.6	< 1.0	ND
	7/22/2014	< 1.4	< 1.1	**0.87**	< 0.79	< 0.51	**0.009**
	12/2/2014	< 1.4	< 1.1	< 0.79	< 0.79	< 0.51	ND
	4/16/2015	< 1.4	< 1.1	< 0.79	< 0.79	< 0.51	ND
	11/3/2015	< 1.4	< 1.1	< 0.79	< 0.79	< 0.51	ND
	4/26/2016	< 1.4	< 1.1	< 0.79	< 0.79	< 0.51	ND
	10/17/2016	**5.11**	< 1.07	< 0.793	< 0.793	< 0.511	**0.031**
	4/18/2017	<1.36	<1.07	<0.793	<0.793	<0.511	ND
	10/18/2017	**2.04 B**	<1.07	<0.793	<0.793	<0.511	**0.012**
	4/17/2018	<1.36	<1.07	<0.793	<0.793	<0.511	ND
	10/11/2018	<1.36	<1.07	**2.04**	<0.793	<0.511	**0.021**
	4/4/2019	<1.36	<1.07	<0.793	<0.793	<0.511	ND
	10/14/2019	<1.36	<1.07	<0.793	<0.793	<0.511	ND
	10/29/2020	<1.36	<1.07	**1.61**	<0.793	<0.511	**0.017**
	4/12/2021	<1.36	<1.07	**0.872**	<0.793	<0.511	**0.009**
	10/25/2021	<1.36	<1.07	<0.793	<0.793	<0.511	ND
	5/27/2022	<1.36	<1.07	<0.793	<0.793	<0.512	ND
	10/31/2022	**1.46**	<1.07	<0.793	<0.793	<0.511	**0.009**
	2/28/2023	**3.11**	<1.07	<0.793	<0.793	<0.511	**0.019**
Average Indoor Concentrations							
	December 1999	**1,474**	**12.5**	ND	ND	ND	**8.94**
	June 16, 2000	**722**	**3.48**	**0.777**	ND	ND	**4.38**
	June 24, 2000	**358**	**3.13**	ND	ND	ND	**2.18**
	June 2001	**926**	**13.0**	ND	ND	ND	**5.60**
	November 2007	**55.2**	**69.7**	**0.434**	ND	ND	**0.859**
	June 2009	**32.2**	**3.69**	**11.4**	**0.207**	**0.100**	**0.343**
	October 2009	**32.0**	**8.21**	**7.13**	**0.146**	**0.160**	**0.332**
	May 2010	**4.36**	**2.61**	**1.49**	ND	**0.040**	**0.062**
	October 2010	**21.3**	**7.63**	**1.76**	**0.055**	ND	**0.272**
	April 2011	**26.9**	**3.13**	**4.75**	**0.066**	**0.039**	**0.235**
	August 2011	**25.6**	**4.75**	**2.01**	ND	ND	**0.211**
	June 2012	**12.1**	**2.10**	**2.67**	ND	ND	**0.164**
	October 2013	**7.81**	**1.04**	**0.71**	ND	ND	**0.057**
	January 2014	**7.51**	**1.07**	**1.05**	ND	ND	**0.067**
	July 2014	**4.24**	**1.13**	**0.708**	ND	ND	**0.045**
	December 2014	**6.53**	**2.86**	**ND**	ND	ND	**0.216**
	April 2015	**9.16**	**2.69**	**1.39**	ND	ND	**0.117**
	November 2015	**6.05**	**1.58**	**1.22**	ND	ND	**0.063**
	April 2016	**21.0**	**2.52**	**15**	ND	ND	**0.335**
	October 2016	**4.38**	**0.901**	**0.776**	ND	ND	**0.040**
	April 2017	**4.41**	**1.06**	**3.27**	ND	ND	**0.064**
	October 2017	**2.30**	**0.664**	**0.788**	ND	ND	**0.031**
	April 2018	**4.10**	**0.649**	**1.30**	ND	ND	**0.036**
	October 2018	**1.88**	**0.693**	**0.506**	ND	ND	**0.021**
	April 2019	**2.69**	**0.721**	**2.77**	ND	ND	**0.046**
	October 2019	**3.06**	**0.756**	**0.512**	ND	**0.424**	**0.029**
	October 2020	**3.09**	**1.14**	ND	ND	ND	**0.024**
	April 2021	**11.5**	**6.29**	**4.44**	ND	ND	**0.163**
	October 2021	**6.72**	**5.12**	**2.92**	ND	ND	**0.112**
	May 2022	**14.7**	**3.19**	**14.1**	ND	**0.396**	**0.258**
	October 2022	**11.2**	**2.89**	**2.85**	ND	ND	**0.114**
	February 2023	**5.93**	**2.52**	**5.79**	**0.35**	**1.35**	**0.084**

Please see notes at end of table.

Table C-4
Ambient Air Sampling Analytical Results
Springdale Cleaners
Portland, Oregon

Notes:

µg/m^3= Micrograms per cubic meter.
µmol/m^3 = Micromole per Cubic Meter.
PCE = tetrachloroethene.
TCE = trichloroethene.
DCE = dichloroethene.
NA = Sample was not analyzed for that specific analyte.
ND = Not Detected (Laboratory Reporting Limit not identified) or average not calculated because all samples were not detected.
Bold values indicates a detected concentration of listed analyte.
>Pv = Concentration above vapor pressure of analyte (maximum attainable concentration).
B = Analyte was detected in the method blank and associated sample. Result may be biased high.

Table C-5
Sub-Slab Vapor Sampling Analytical Results
Springdale Cleaners
Portland, Oregon

Sample	Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	Total Molar VOCs
		Concentrations in µg/m^3					µmol/m^3
West Building Monitoring Points							
VP-4	11/10/2010	**46.8**	**8.6**	**4.36**	< 3.73	< 2.40	0.39
	12/16/2010	**107**	**32.8**	**22.2**	< 2.85	< 1.84	1.12
	4/22/2011	**34**	**7.5**	**6.3**	<0.79	<0.51	0.33
	8/16/2011	**13.9**	**2.2**	< 1.1	< 1.1	< 0.36	0.10
	11/30/2012	**8.8**	**2.4**	**1.9**	< 0.79	< 0.51	0.091
	10/16/2013	**16**	**2.0**	< 0.79	< 0.79	< 0.51	0.11
	1/21/2014	**4.5**	**1.1**	< 0.79	< 0.79	< 0.51	0.035
	7/22/2014	**75**	**13**	**2.8**	< 0.79	< 0.51	0.58
	12/2/2014	**11**	< 1.1	< 0.79	< 0.79	< 0.51	0.066
	4/16/2015	**12**	**2.6**	**2.7**	< 0.79	< 0.51	0.12
	11/3/2015	**5.38**	< 1.07	< 0.79	< 0.79	< 0.51	0.03
	4/26/2016	**17.3**	**1.22**	< 0.79	< 0.79	< 0.51	0.11
	10/17/2016	**28.7**	**4.26**	**0.876**	< 0.793	< 0.511	0.21
	4/18/2017	**5.42**	<1.07	**2.45**	<0.793	<0.511	0.06
	10/18/2017	**7.36**	**1.77**	**1.69**	<0.793	<0.511	0.08
	4/17/2018	**24.0**	**4.94**	**14.4**	<0.793	<0.511	0.33
	10/9/2018	<1.36	<1.07	<0.793	<0.793	<0.511	ND
	4/4/2019	**4.38**	**1.28**	**5.26**	<0.793	<0.511	0.09
	10/14/2019	**168**	**1.32**	**1.03**	<0.793	<0.511	1.03
	10/29/2020	*Sample Not Collected - Due to Access Restrictions*					
	4/12/2021	*Sample Not Collected - Due to Access Restrictions*					
	10/28/2021	*Sample Not Collected - Due to Access Restrictions*					
	5/27/2022	**38.6 J**	**5.52 J**	**3.39 J**	<0.793 UJ	<0.511 UJ	**0.309**
	11/2/2022	**447**	**7.02**	**1.49**	<0.793	<0.511	2.76
	2/28/2023	**17.3**	**5.59**	**20.1**	<0.793	**2.07**	**0.39**
VP-5	11/10/2010	**997**	**623**	**698**	< 61.1	< 39.4	17.9
	12/16/2010	**828**	**520**	**1205**	< 42.4	< 27.4	21.3
	4/22/2011	**810**	**510**	**1,900**	**7.5**	**0.56**	28.4
	8/17/2011	**283**	**106**	**217**	< 1.2	< 0.40	4.74
	11/30/2012	**5.0**	**1.4**	**18**	< 0.79	< 0.51	0.23
	10/16/2013	**150**	**47**	**100**	< 0.79	< 0.51	2.29
	1/21/2014	**30**	**7.5**	**75**	< 0.79	< 0.51	1.01
	7/22/2014	**390**	**64**	**330**	**0.79**	< 0.51	6.24
	12/2/2014	**290**	**80**	**340**	**6.3**	< 0.51	5.92
	4/15/2015	**1,300**	**700**	**2,500**	**39**	**2.1**	39.3
	11/3/2015	**282**	**50.2**	**58.3**	**1.45**	< 0.51	2.7
	4/26/2016	**1,780**	**1060**	**4,400**	**7.49**	< 0.51	64.1
	10/17/2016	**133**	**1.32**	**596**	**3.31**	**1.32**	7.0
	4/18/2017	*Vapor point destroyed*					
VP-6	11/10/2010	**45.4**	**10.2**	**5.55**	< 2.93	< 1.89	0.41
	12/16/2010	**61.0**	**15.6**	**16.3**	< 3.17	< 2.04	0.65
	4/22/2011	**68**	**21**	**180**	**2.4**	<0.51	2.45
	8/16/2011	**35.7**	**5.4**	**69.2**	< 2.2	< 0.70	0.97
	11/30/2012	**88**	**19**	**39**	**1.0**	< 0.51	1.09
	10/16/2013	**51**	**8.6**	**24**	< 0.79	< 0.51	0.62

Please see notes at end of table.

Table C-5
Sub-Slab Vapor Sampling Analytical Results
Springdale Cleaners
Portland, Oregon

VP-6	1/21/2014	**11**	**2.0**	**7.9**	< 0.79	< 0.51	0.16
	7/22/2014	**190**	**41**	**750**	**7.5**	< 0.51	9.27
	12/2/2014	**7.5**	< 1.1	< 0.79	< 0.79	< 0.51	0.045
	4/15/2015	*Vapor point destroyed*					
VP-6R	4/17/2018	**16.1**	**7.24**	**126**	<0.793	<0.511	1.45
	10/9/2018	**8.15**	**2.55**	**4.81**	<0.793	<0.511	0.12
	4/8/2019	**18.7**	**14.6**	**168**	**1.62**	<0.511	1.97
	10/16/2019	**27.5**	**7.39**	**7.17**	<0.793	<0.511	0.30
	10/29/2020	*Sample Not Collected - Due to Access Restrictions*					
	4/12/2021	**38.5**	**19.9**	**158**	<0.793	<0.511	2.01
	10/28/2021	**22.7**	**8.73**	**35.8**	<0.793	<0.511	0.57
	5/22/2022	**539**	**101**	**1,260**	**8.52**	<0.511	**17.1**
	11/2/2022	**270**	**19.2**	**50.3**	**0.808**	<0.511	2.30
	2/28/2023	**117**	**8.03**	**28.7**	<0.793	<0.511	**1.06**

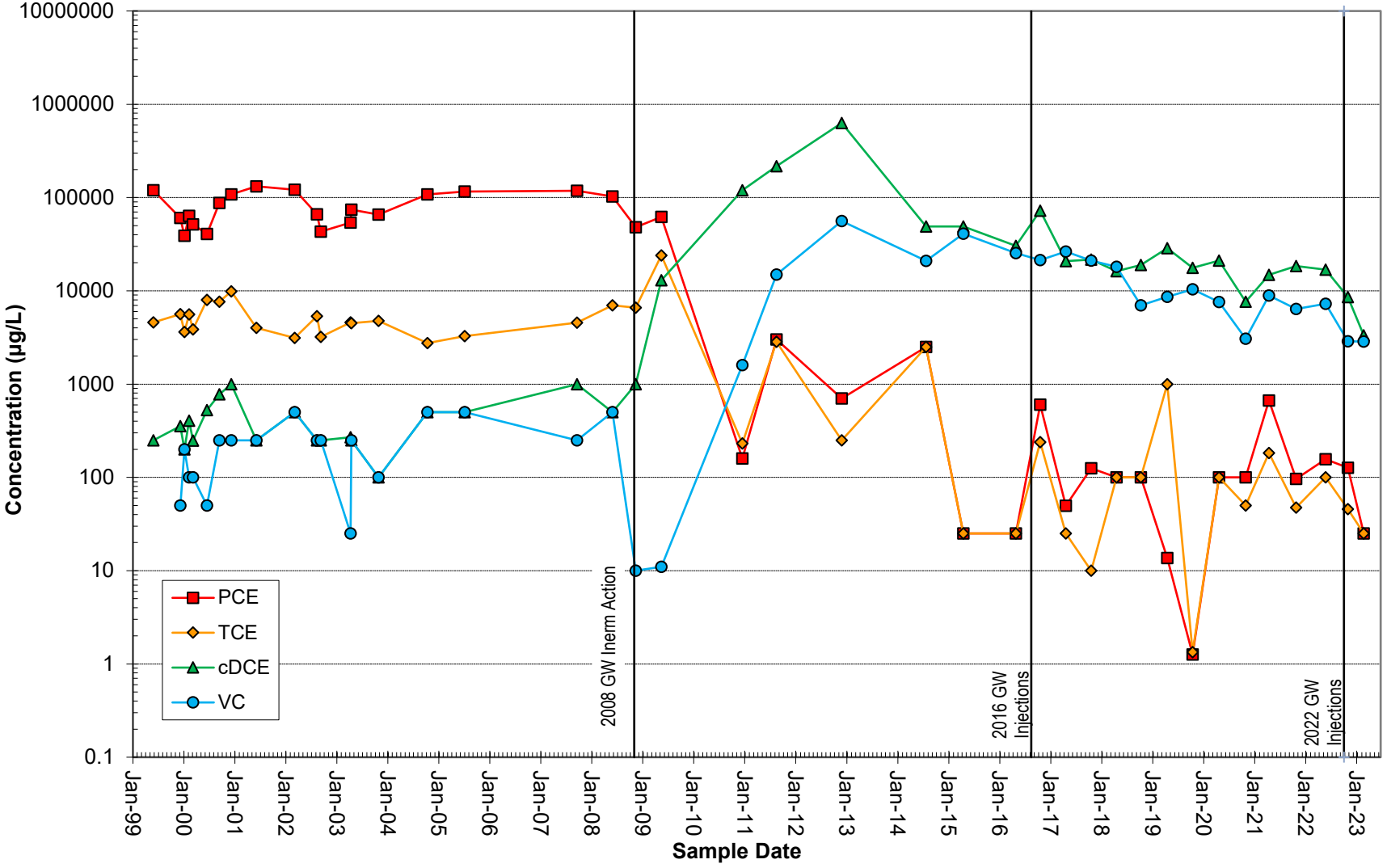
Table C-5
Sub-Slab Vapor Sampling Analytical Results
Springdale Cleaners
Portland, Oregon

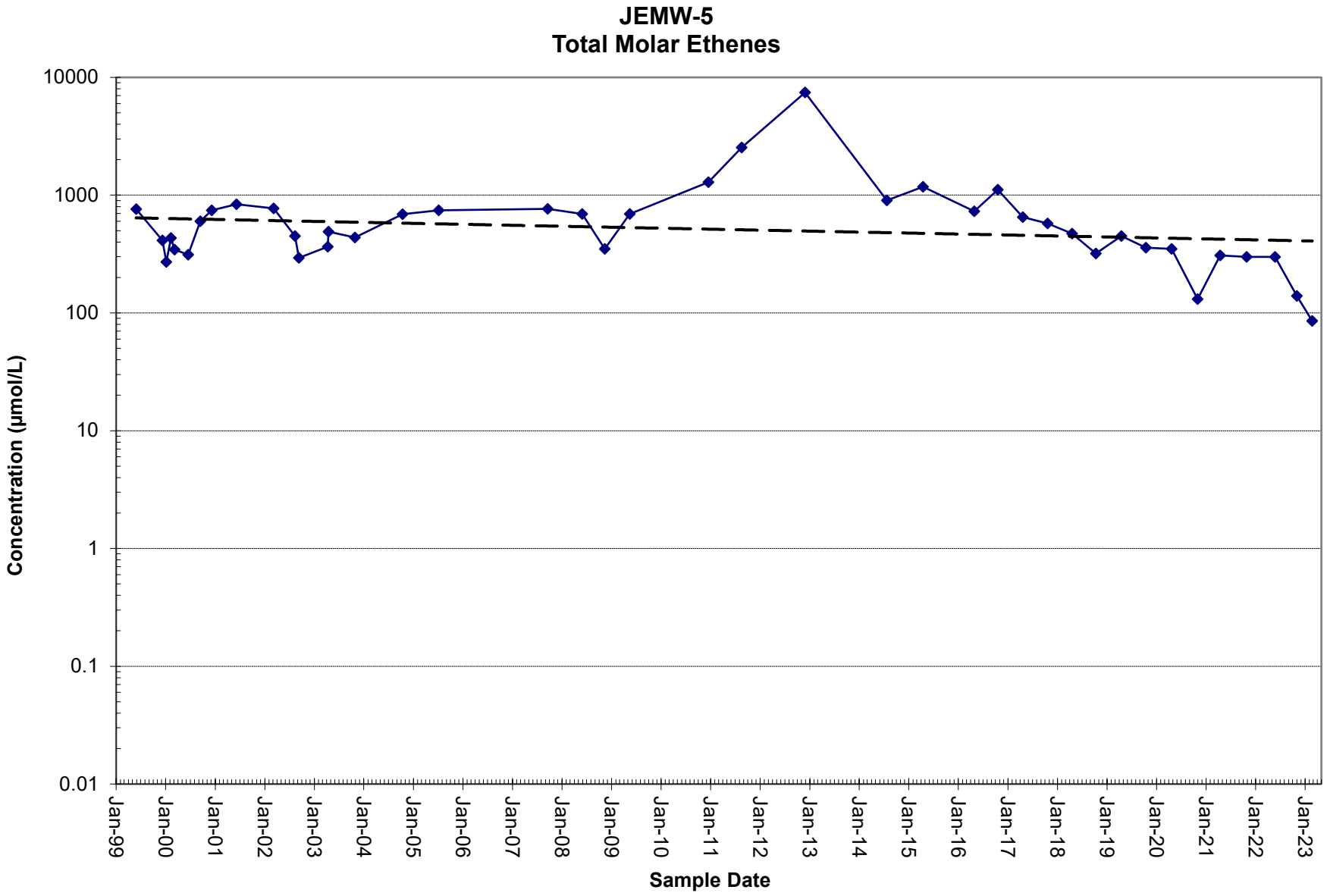
Notes:

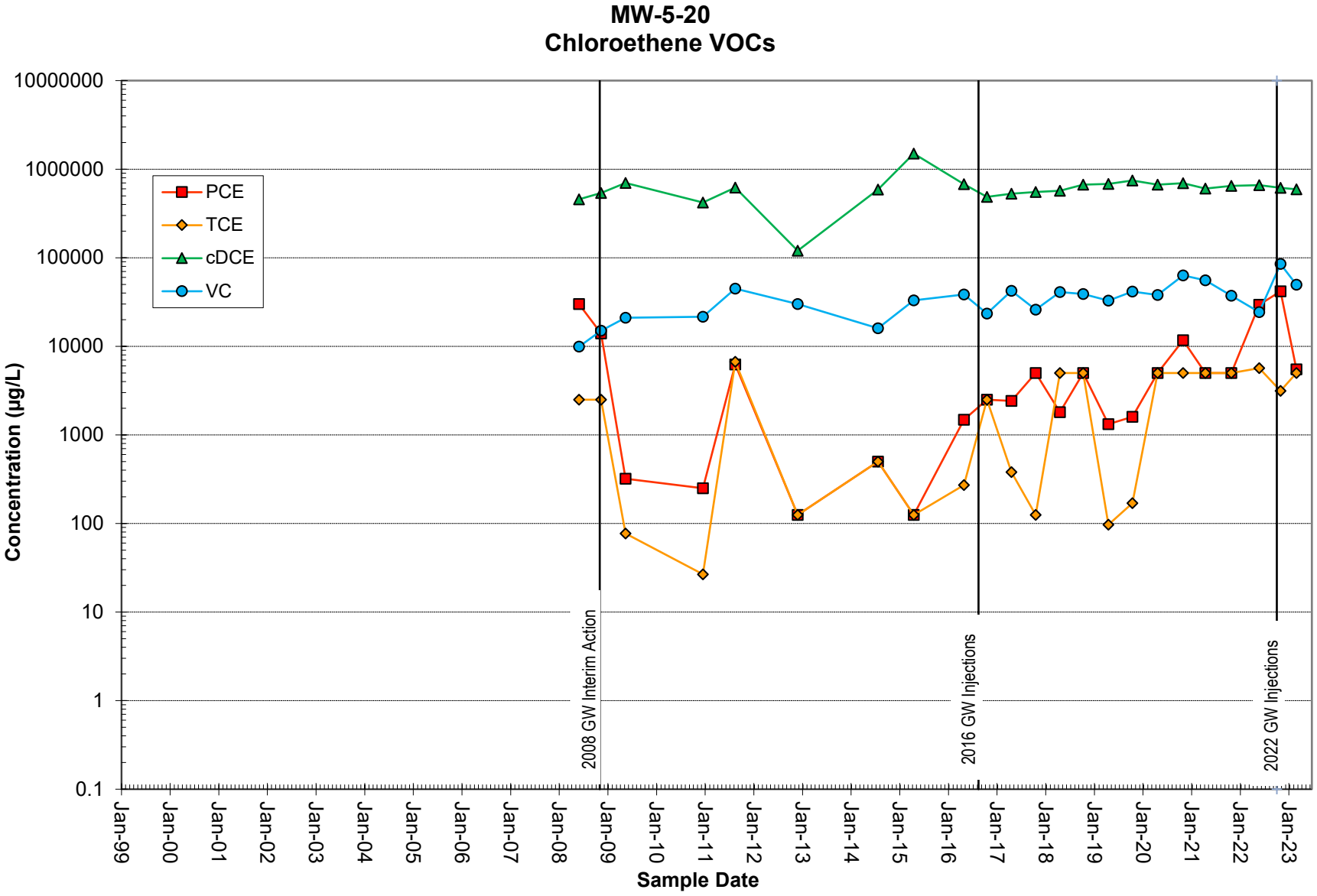
µg/m^3 = Micrograms per Cubic Meter.
µmol/m^3 = Micromole per Cubic Meter.
Bold values indicates a detected concentration of listed analyte.
Highlighted values exceed relevant RBC screening level.
>Pv = Concentration above vapor pressure of analyte (maximum attainable concentration).
DCE = dichloroethene.
PCE = tetrachloroethene.
TCE = trichloroethene.

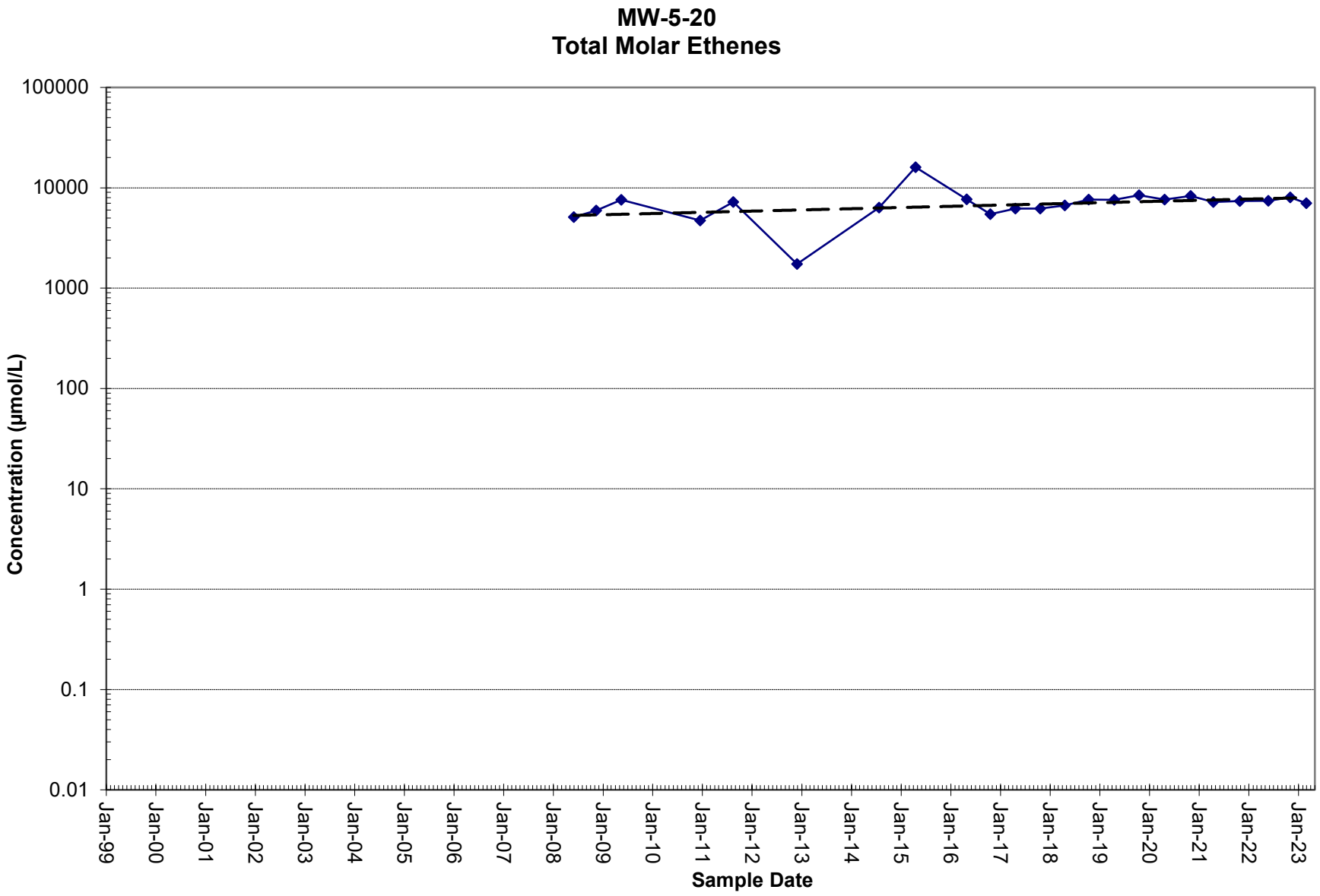
Appendix D

Groundwater Concentration Trend Plots


JEMW-5
Chloroethene VOCs
Concentration (µg/L)
10000000
1000000
100000
10000
1000
100
10
1
0.1
PCE
TCE
cDCE
VC
2008 GW Inerm Action
2016 GW Injections
2022 GW Injections
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
Jan-21
Jan-22
Jan-23
Sample Date


JEMW-5
Total Molar Ethenes
Concentration (µmol/L)
10000
1000
100
10
1
0.1
0.01
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
Jan-21
Jan-22
Jan-23
Sample Date


MW-5-20
Chloroethene VOCs
Concentration (µg/L)
10000000
1000000
100000
10000
1000
100
10
1
0.1
PCE
TCE
cDCE
VC
2008 GW Interim Action
2016 GW Injections
2022 GW Injections
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
Jan-21
Jan-22
Jan-23
Sample Date


MW-5-20
Total Molar Ethenes
100000
10000
1000
100
10
1
0.1
0.01
Concentration (µmol/L)
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
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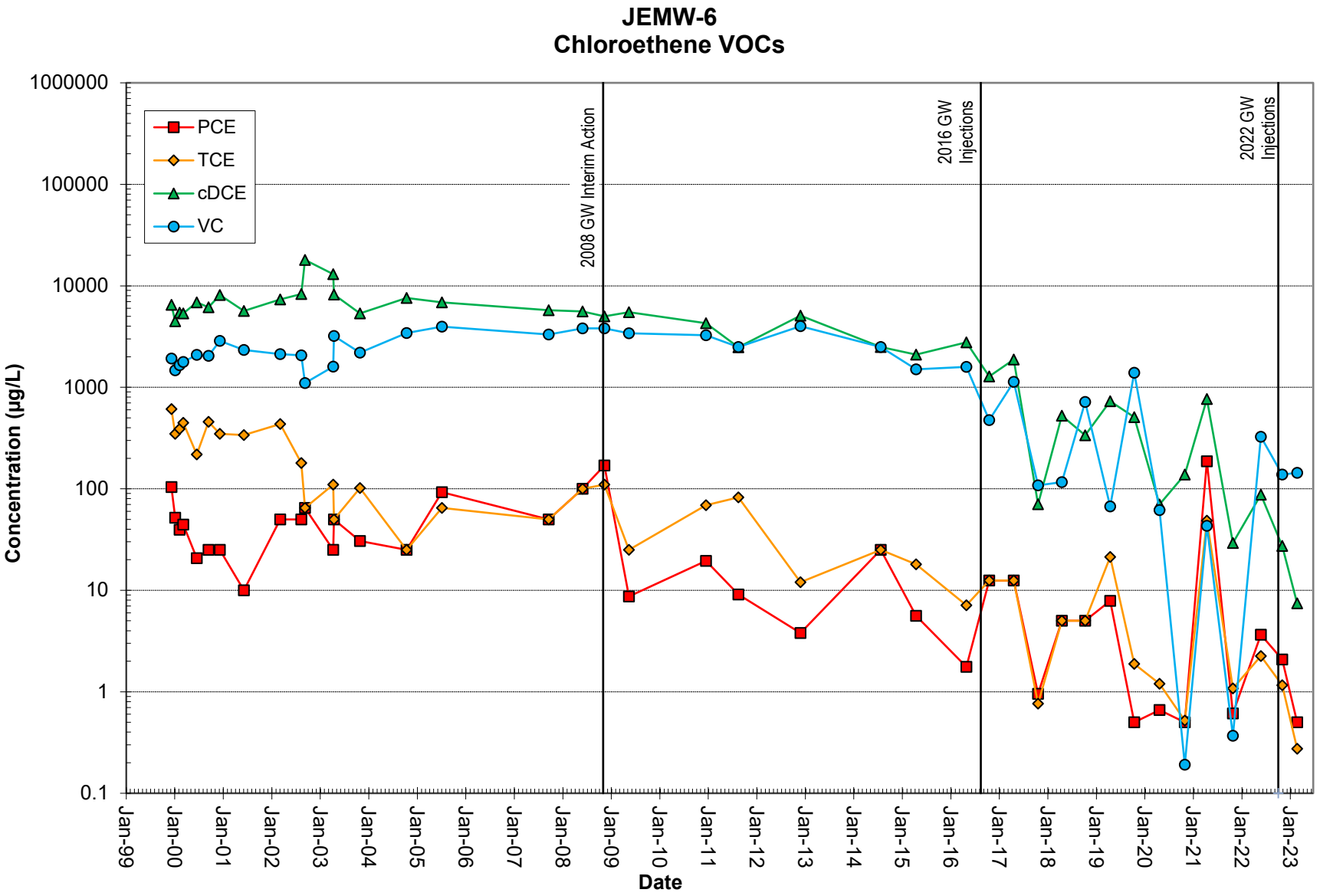
Jan-17
Jan-18
Jan-19
Jan-20
Jan-21
Jan-22
Jan-23
Sample Date


JEMW-6
Chloroethene VOCs
PCE
TCE
cDCE
VC
2008 GW Interim Action
2016 GW Injections
2022 GW Injections
Concentration (µg/L)
1000000
100000
10000
1000
100
10
1
0.1
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
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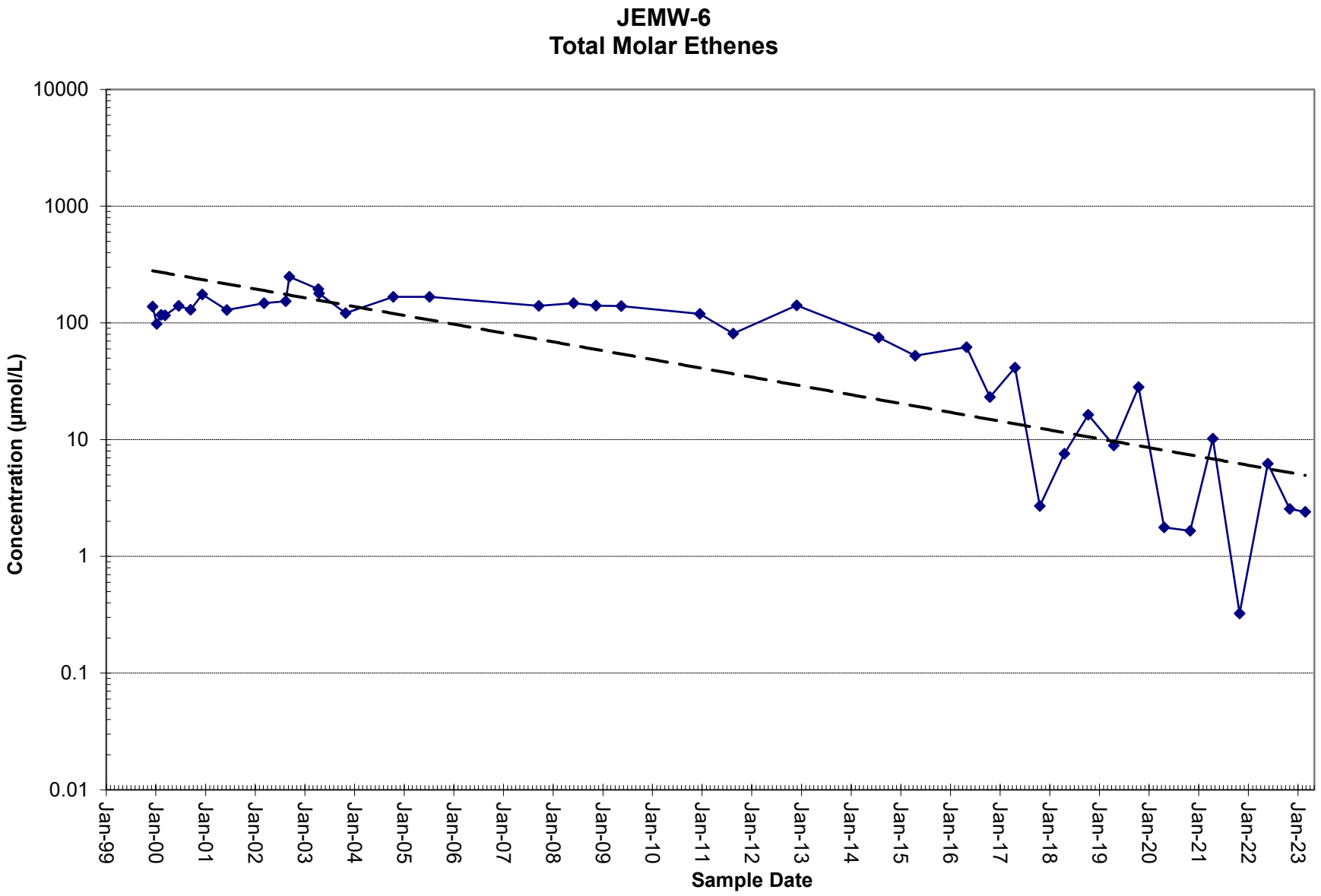
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
Jan-21
Jan-22
Jan-23
Date


JEMW-6
Total Molar Ethenes
Concentration (µmol/L)
10000
1000
100
10
1
0.1
0.01
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
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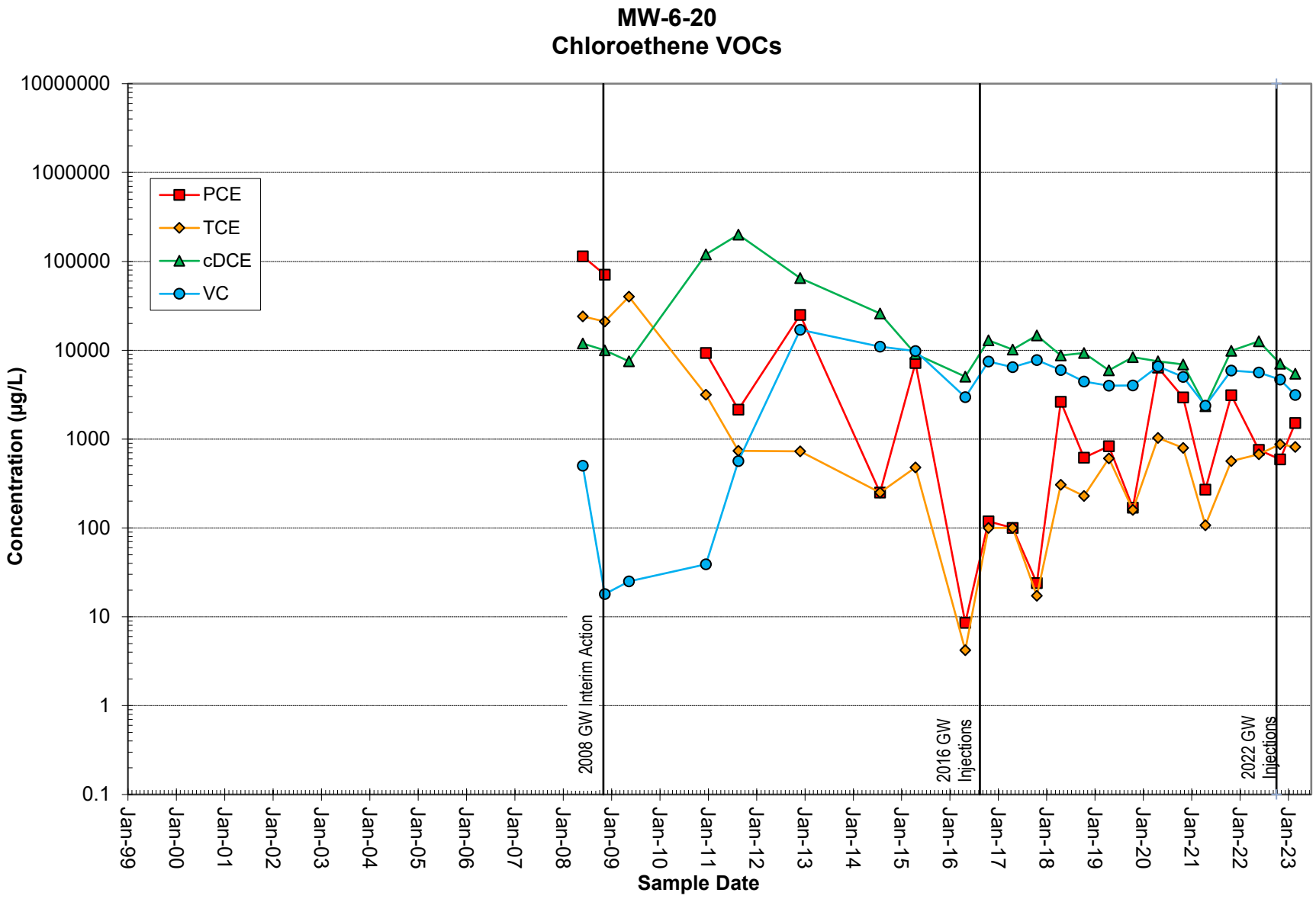
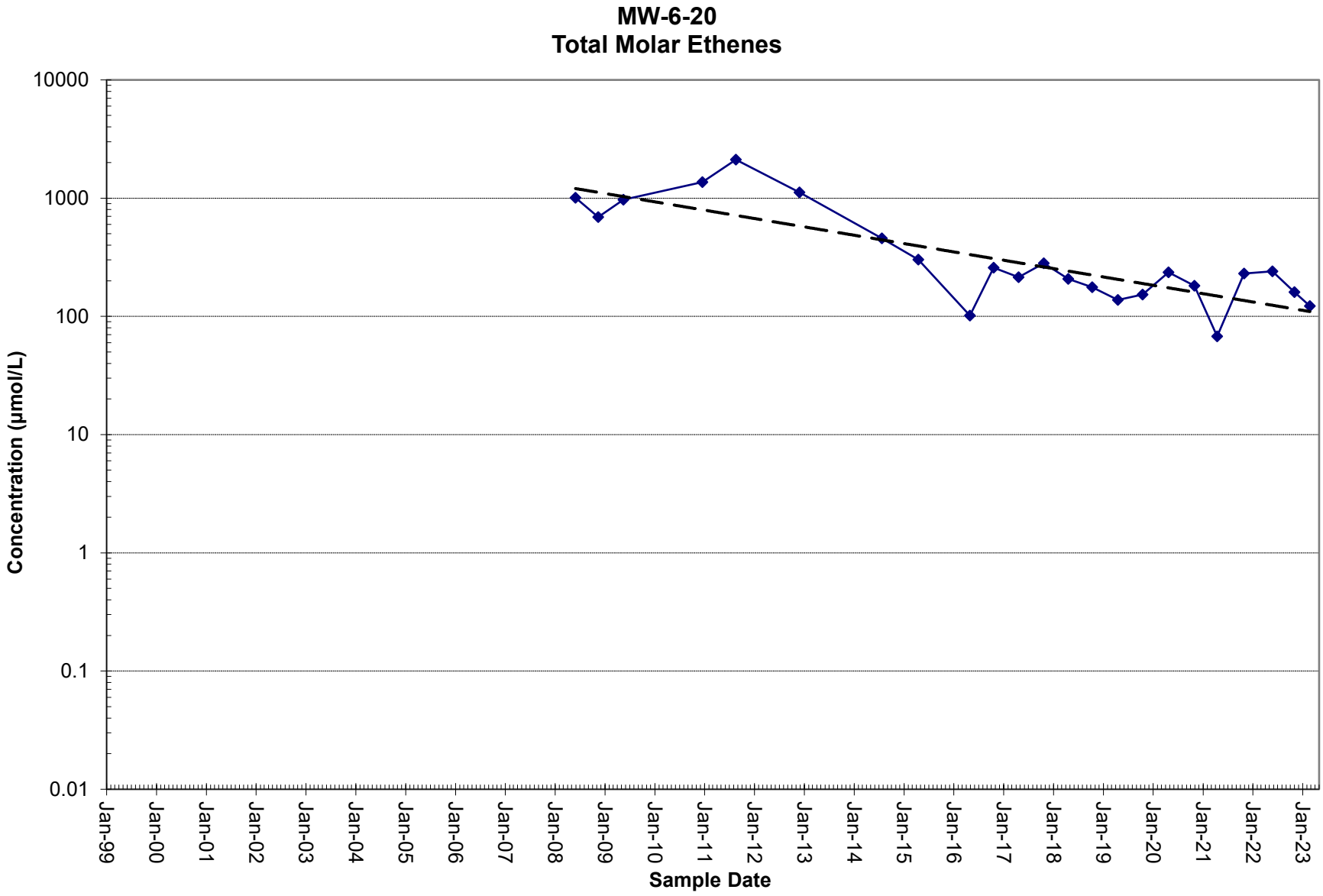
Jan-18
Jan-19
Jan-20
Jan-21
Jan-22
Jan-23
Sample Date


MW-6-20
Chloroethene VOCs
PCE
TCE
cDCE
VC
Concentration (µg/L)
10000000
1000000
100000
10000
1000
100
10
1
0.1
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
Jan-21
Jan-22
Jan-23
Sample Date
2008 GW Interim Action
2016 GW Injections
2022 GW Injections


MW-6-20
Total Molar Ethenes
10000
1000
100
10
1
0.1
0.01
Concentration (µmol/L)
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
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Jan-16
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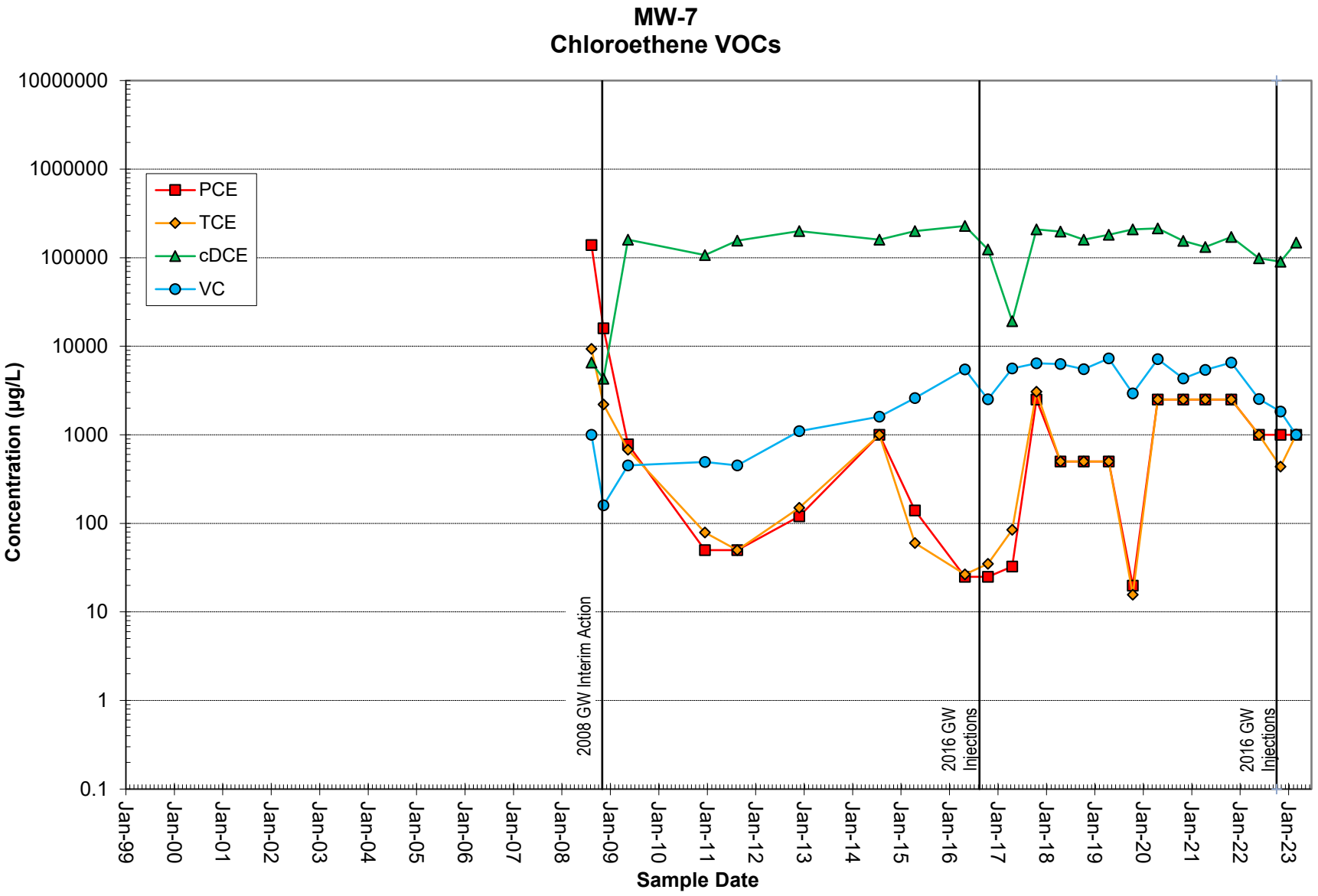
Jan-20
Jan-21
Jan-22
Jan-23
Sample Date


MW-7
Chloroethene VOCs
Concentration (µg/L)
10000000
1000000
100000
10000
1000
100
10
1
0.1
PCE
TCE
cDCE
VC
2008 GW Interim Action
2016 GW Injections
2016 GW Injections
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
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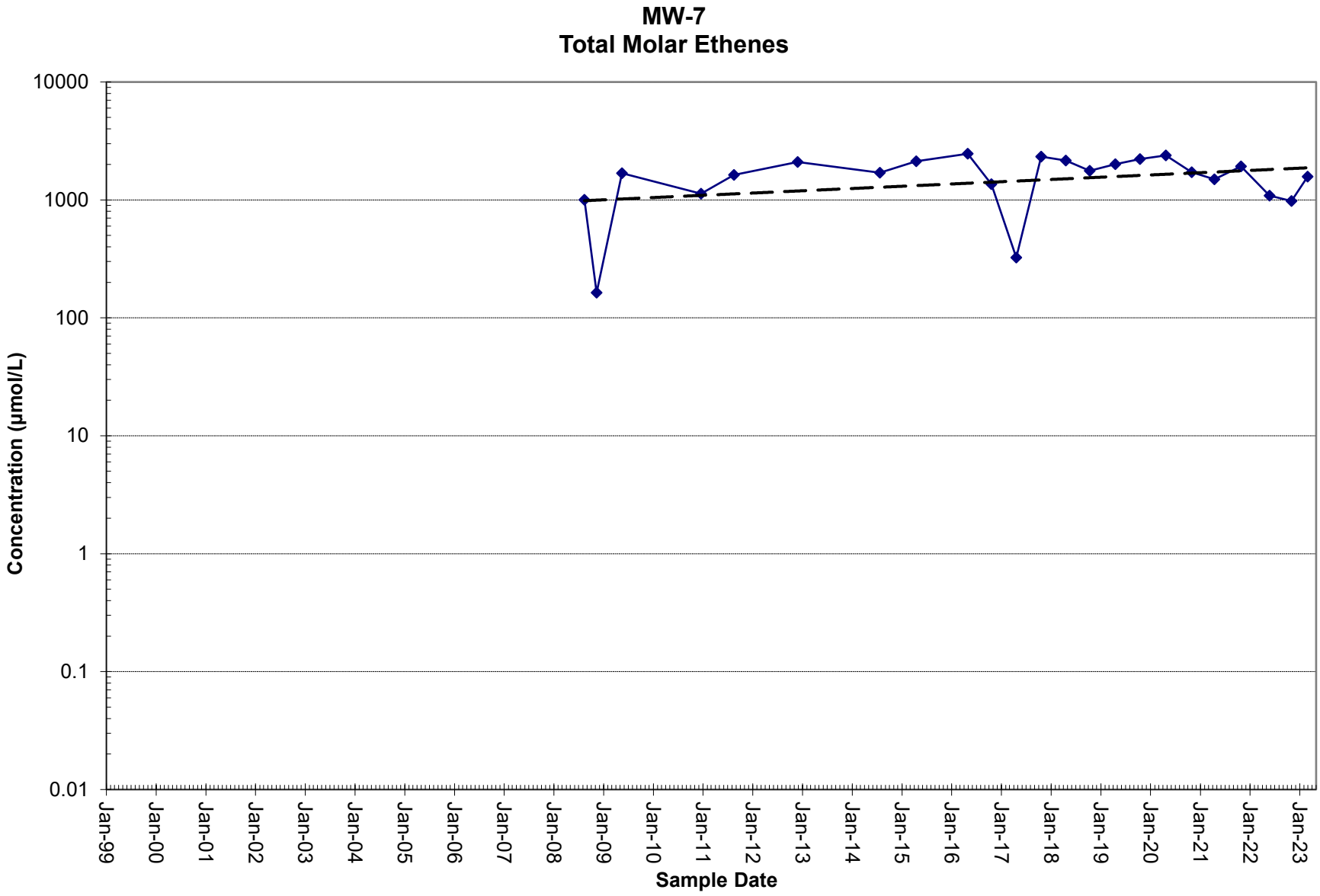
Jan-21
Jan-22
Jan-23
Sample Date


MW-7
Total Molar Ethenes
10000
1000
100
10
1
0.1
0.01
Concentration (µmol/L)
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
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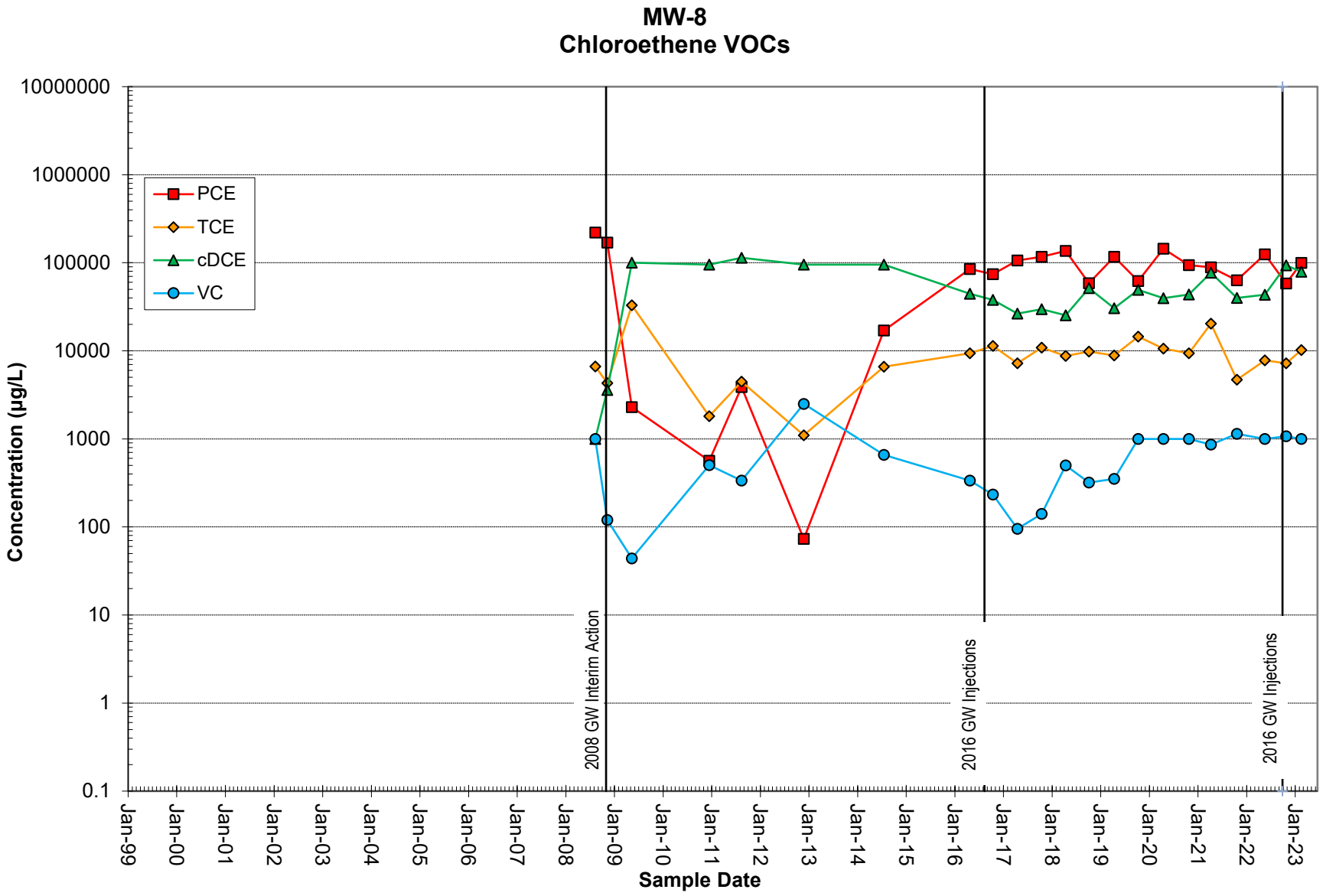
Jan-20
Jan-21
Jan-22
Jan-23
Sample Date


MW-8
Chloroethene VOCs
Concentration (µg/L)
10000000
1000000
100000
10000
1000
100
10
1
0.1
PCE
TCE
cDCE
VC
2008 GW Interim Action
2016 GW Injections
2016 GW Injections
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
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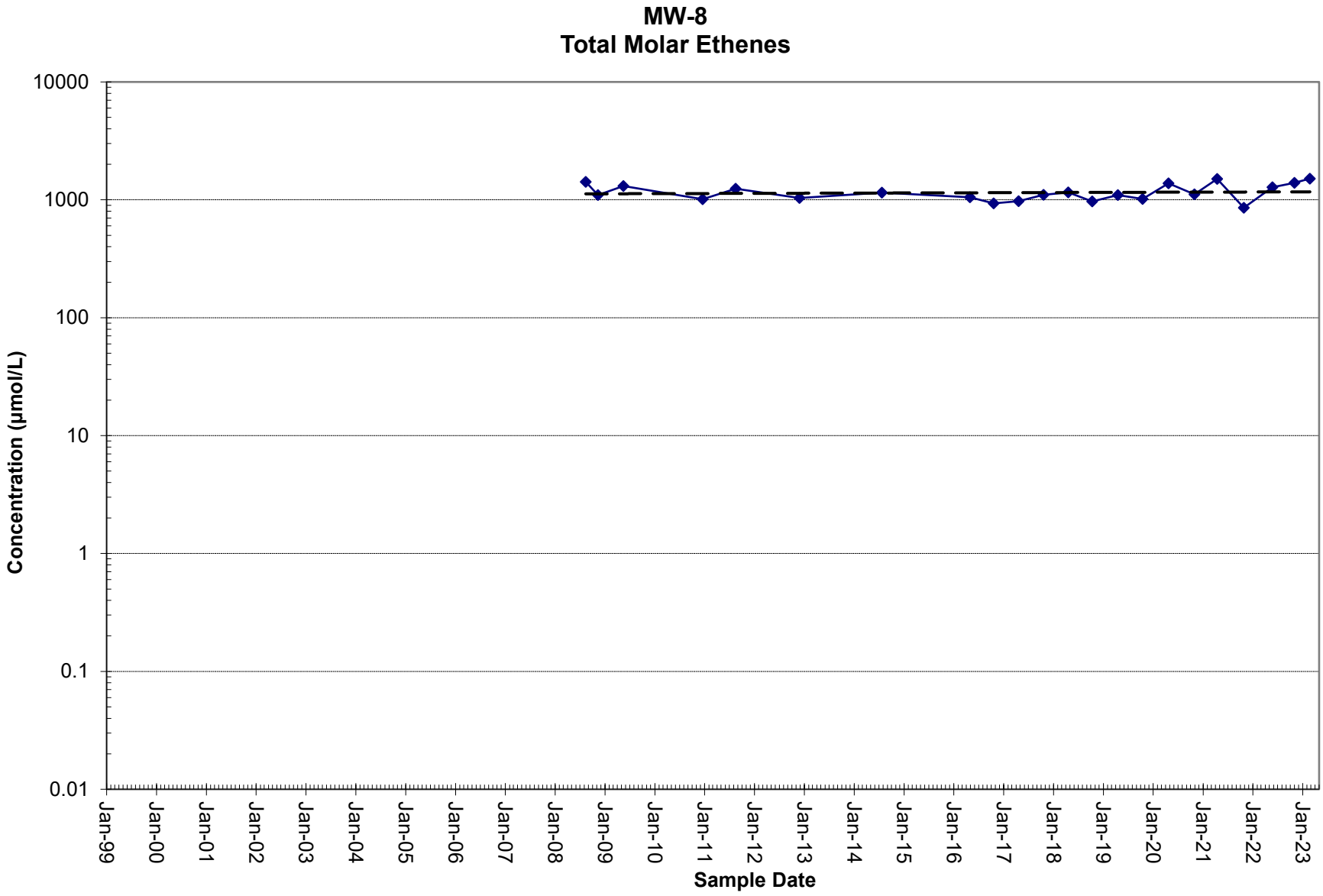
Jan-20
Jan-21
Jan-22
Jan-23
Sample Date


MW-8
Total Molar Ethenes
10000
1000
100
10
1
0.1
0.01
Concentration (µmol/L)
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
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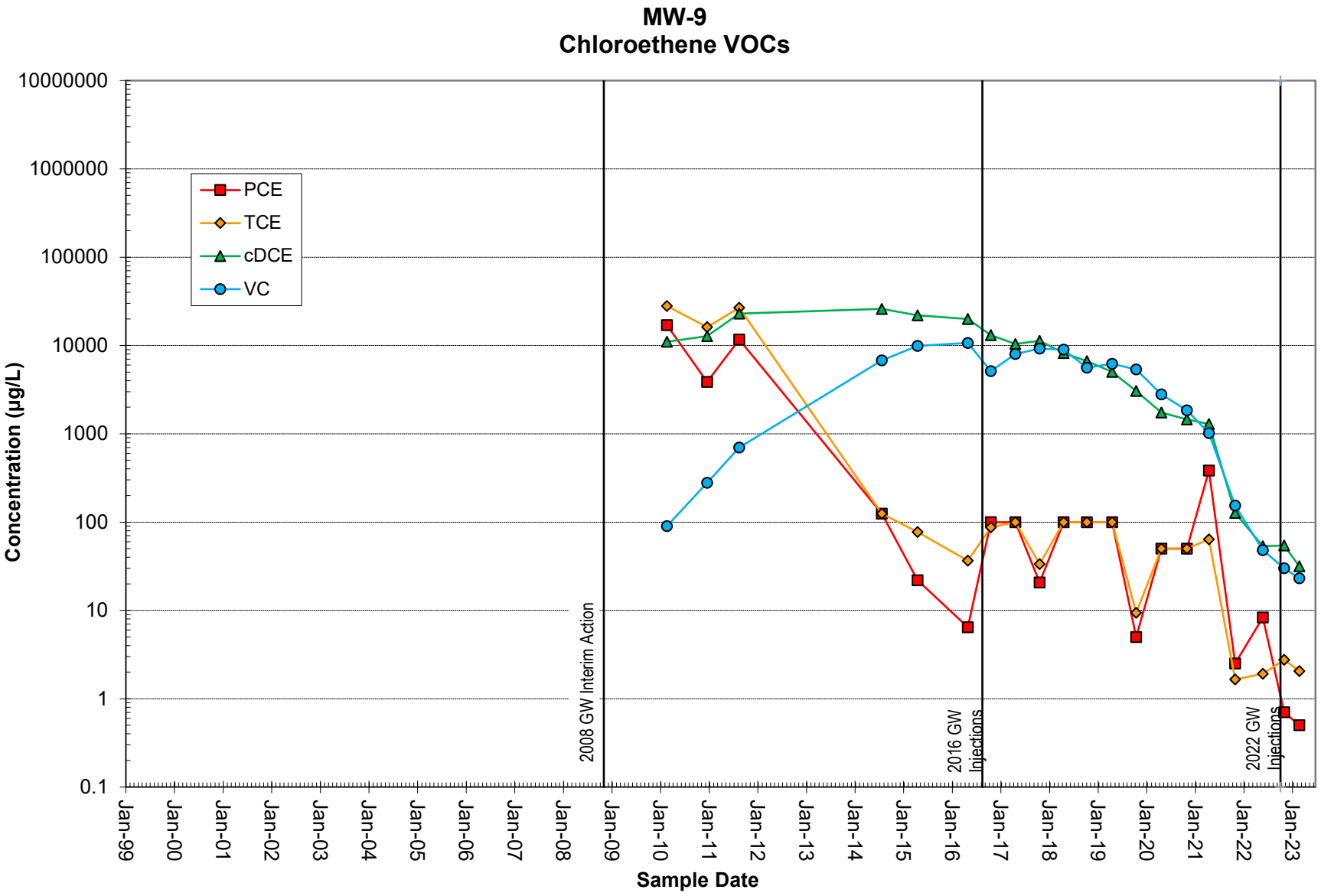
Jan-18
Jan-19
Jan-20
Jan-21
Jan-22
Jan-23
Sample Date


MW-9
Chloroethene VOCs
PCE
TCE
cDCE
VC
Concentration (µg/L)
10000000
1000000
100000
10000
1000
100
10
1
0.1
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
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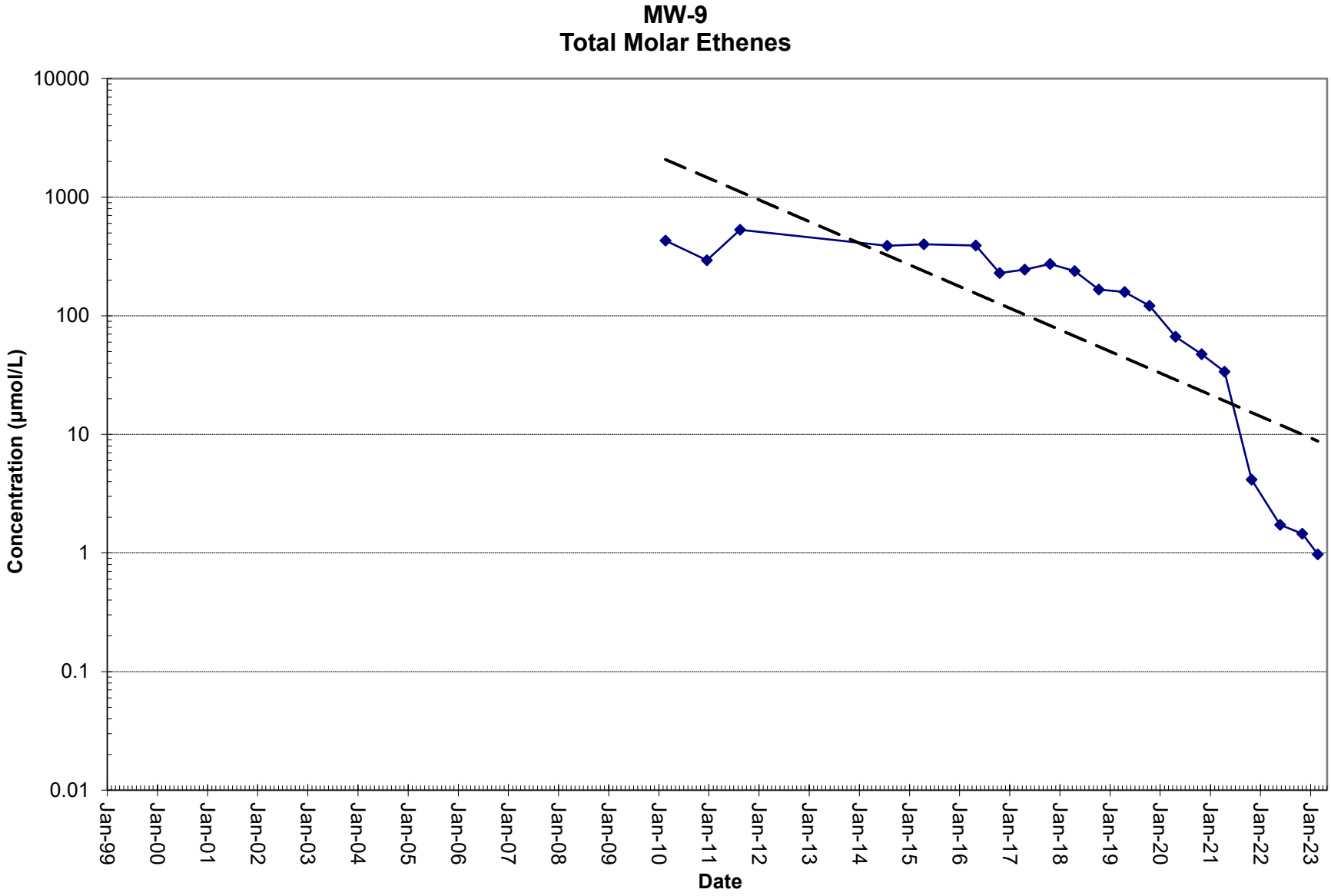
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
Jan-21
Jan-22
Jan-23
Sample Date
2008 GW Interim Action
2016 GW Injections
2022 GW Injections


MW-9
Total Molar Ethenes
Concentration (µmol/L)
10000
1000
100
10
1
0.1
0.01
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
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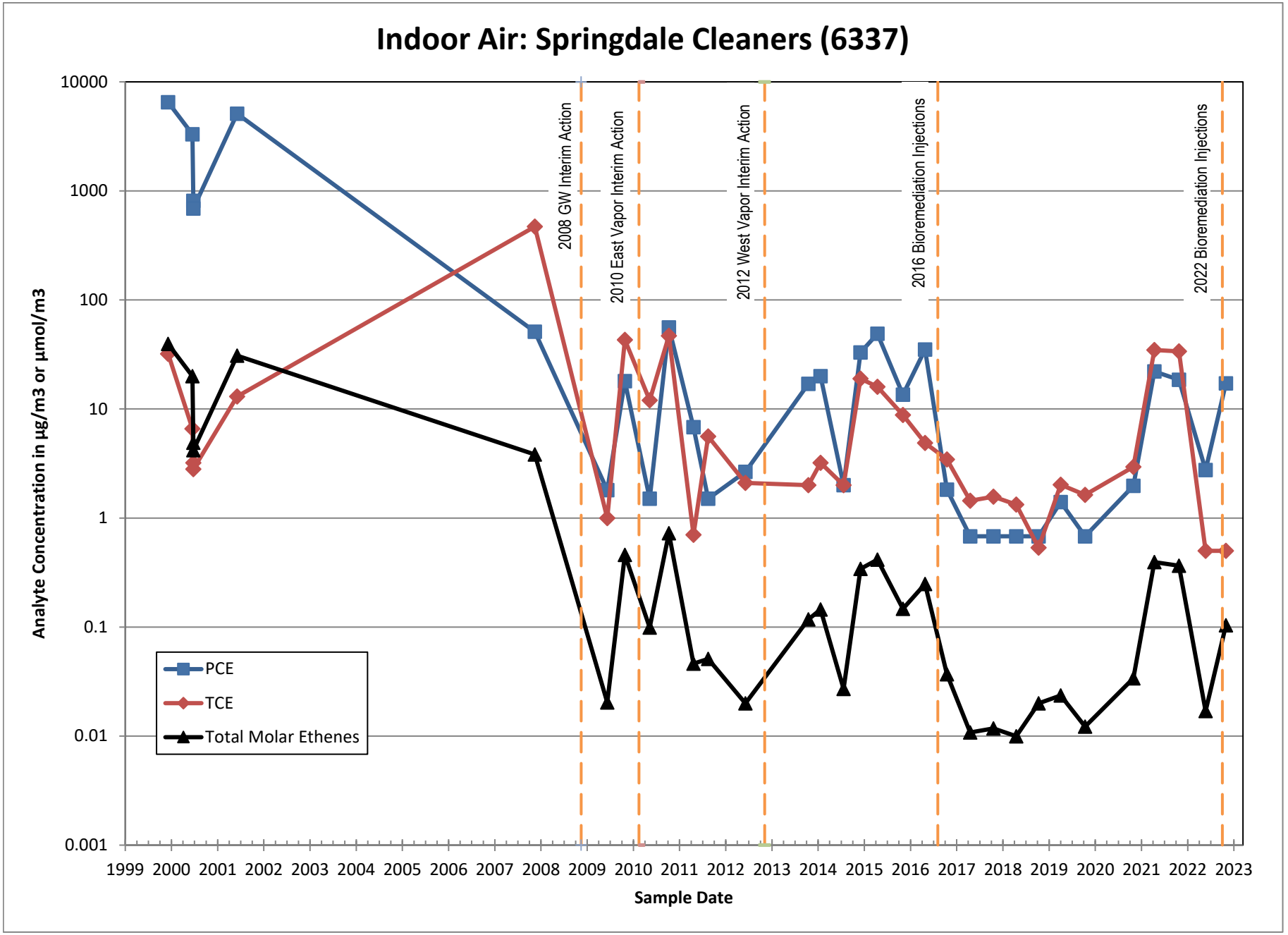
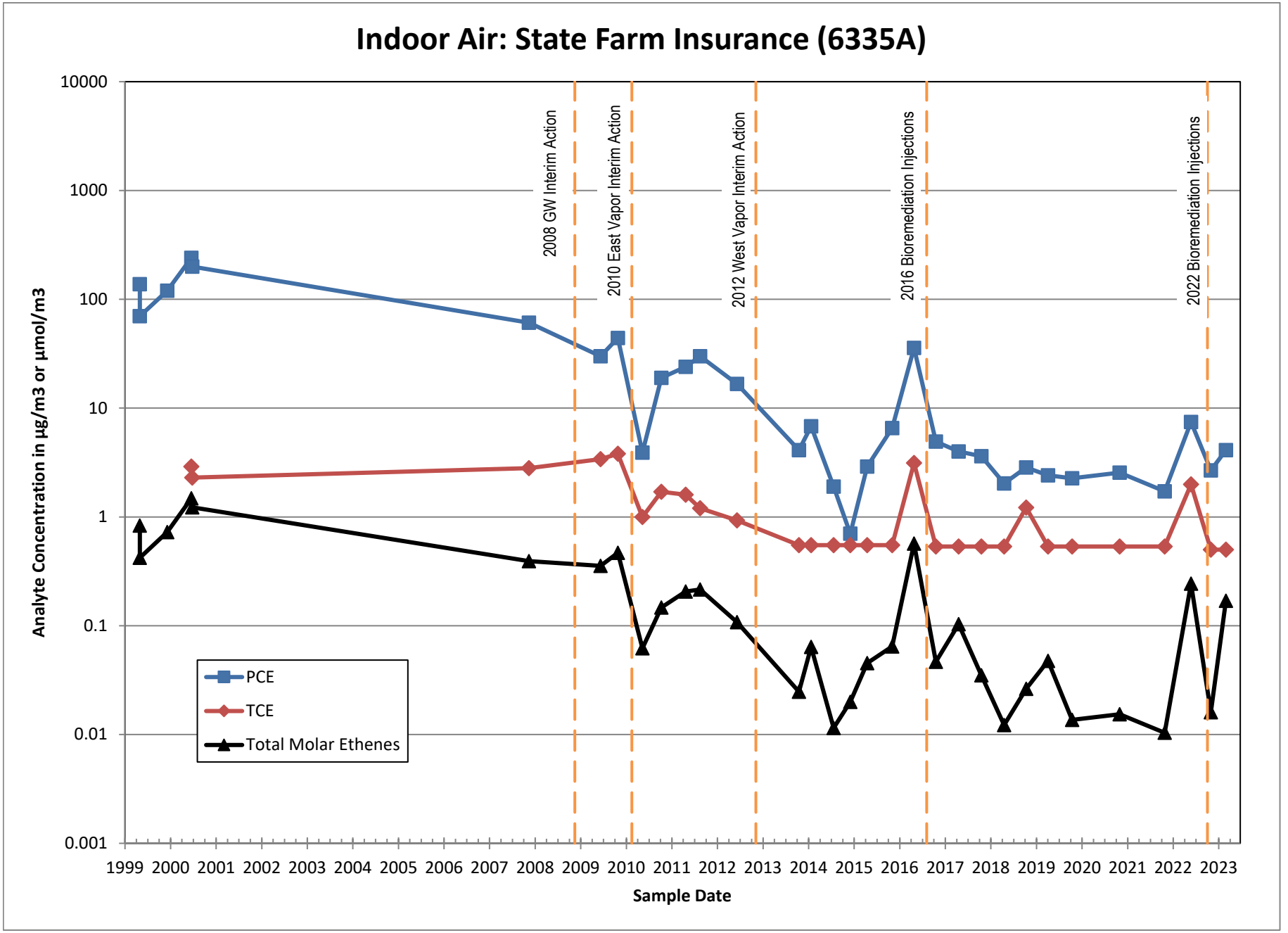
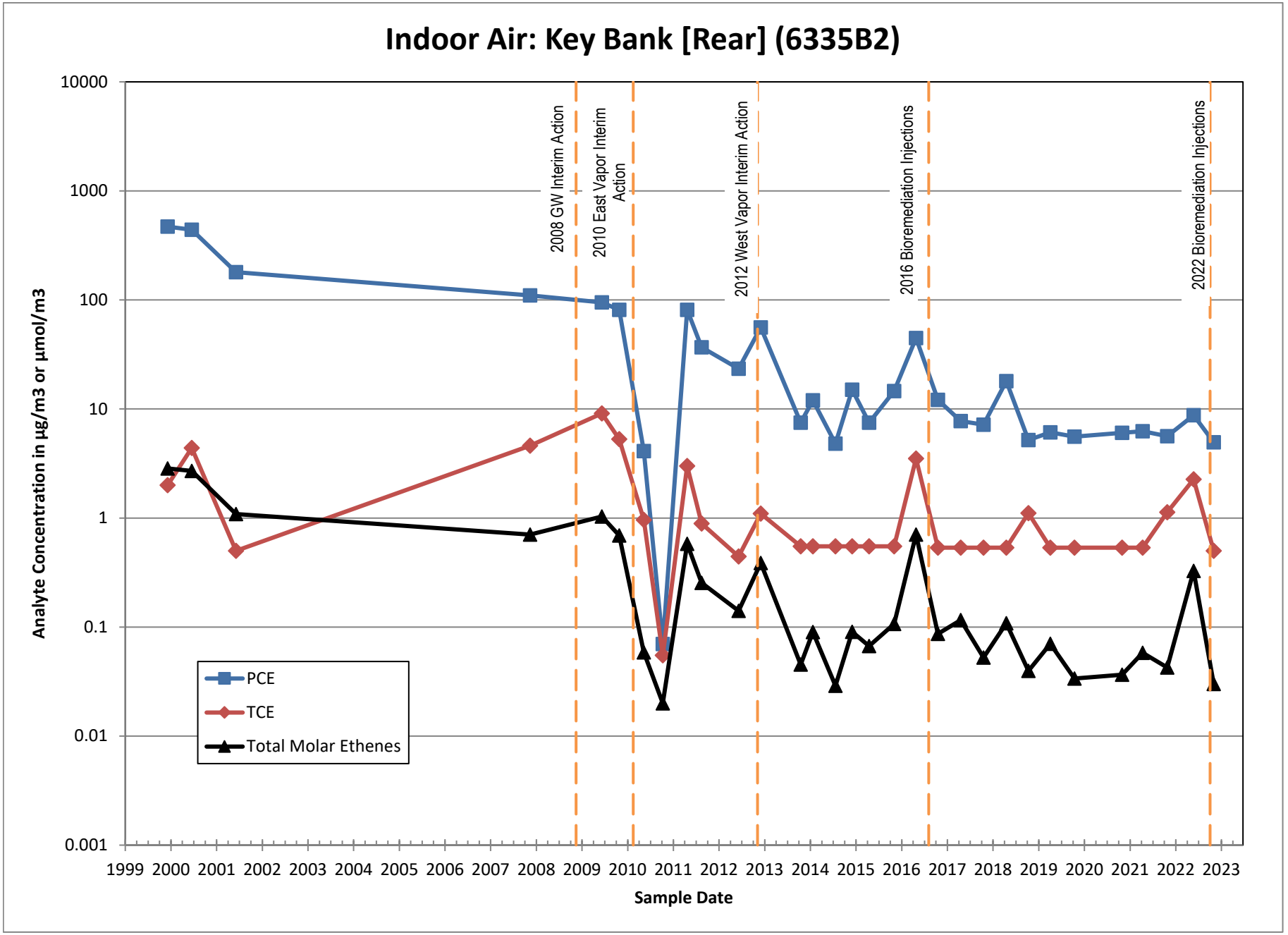
Jan-21
Jan-22
Jan-23
Date

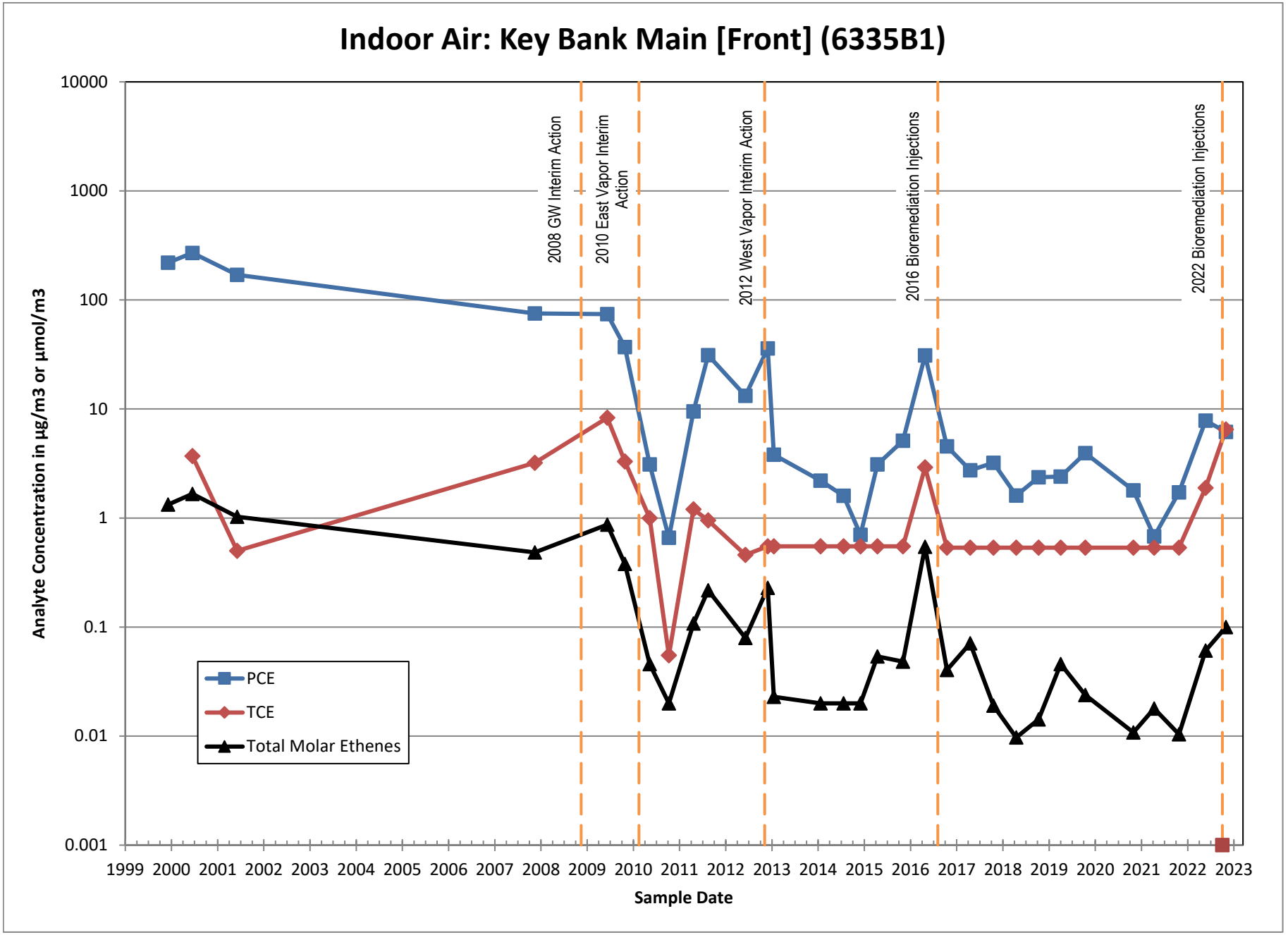
Appendix E

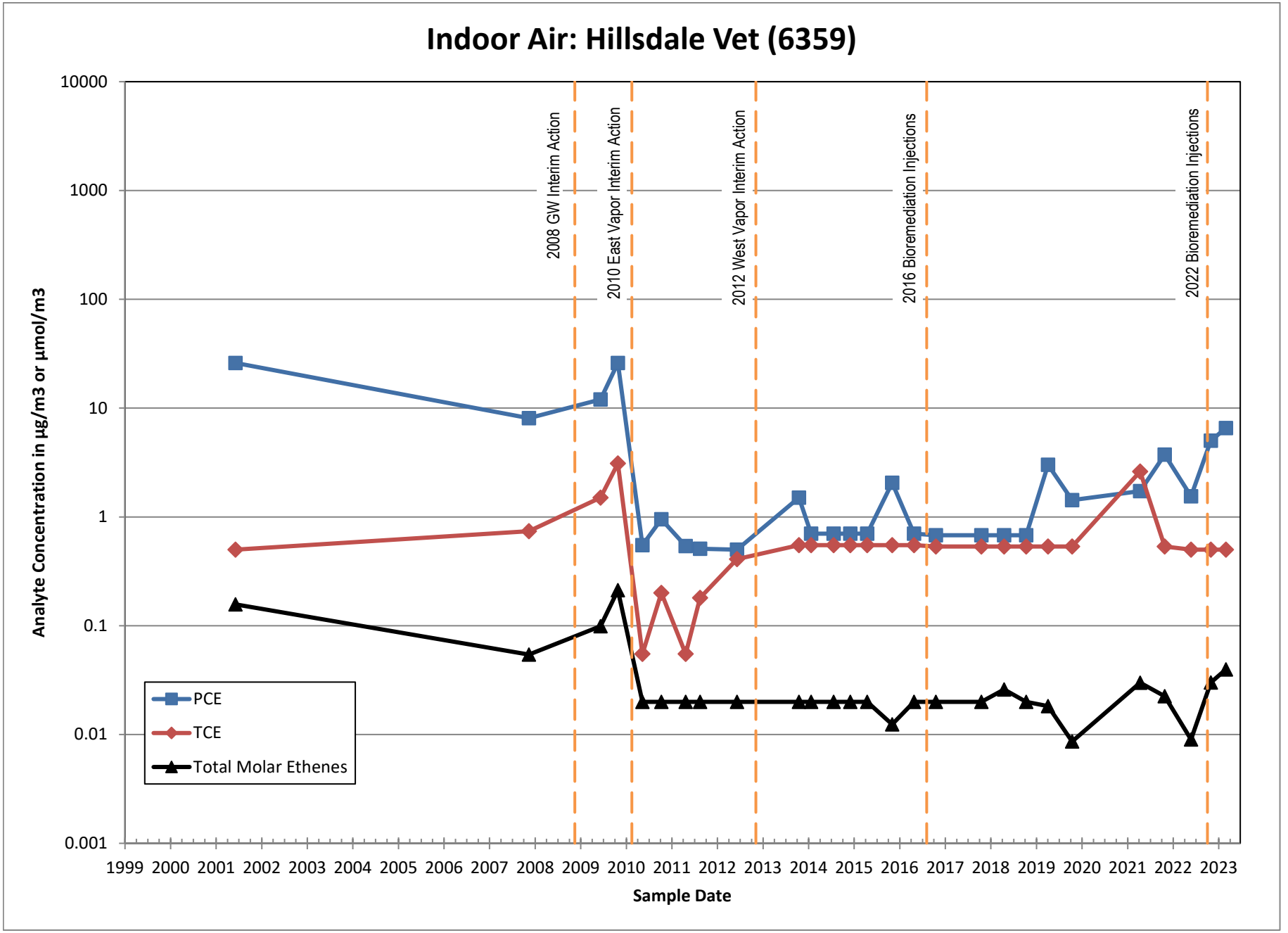
Air Concentration Trend Plots

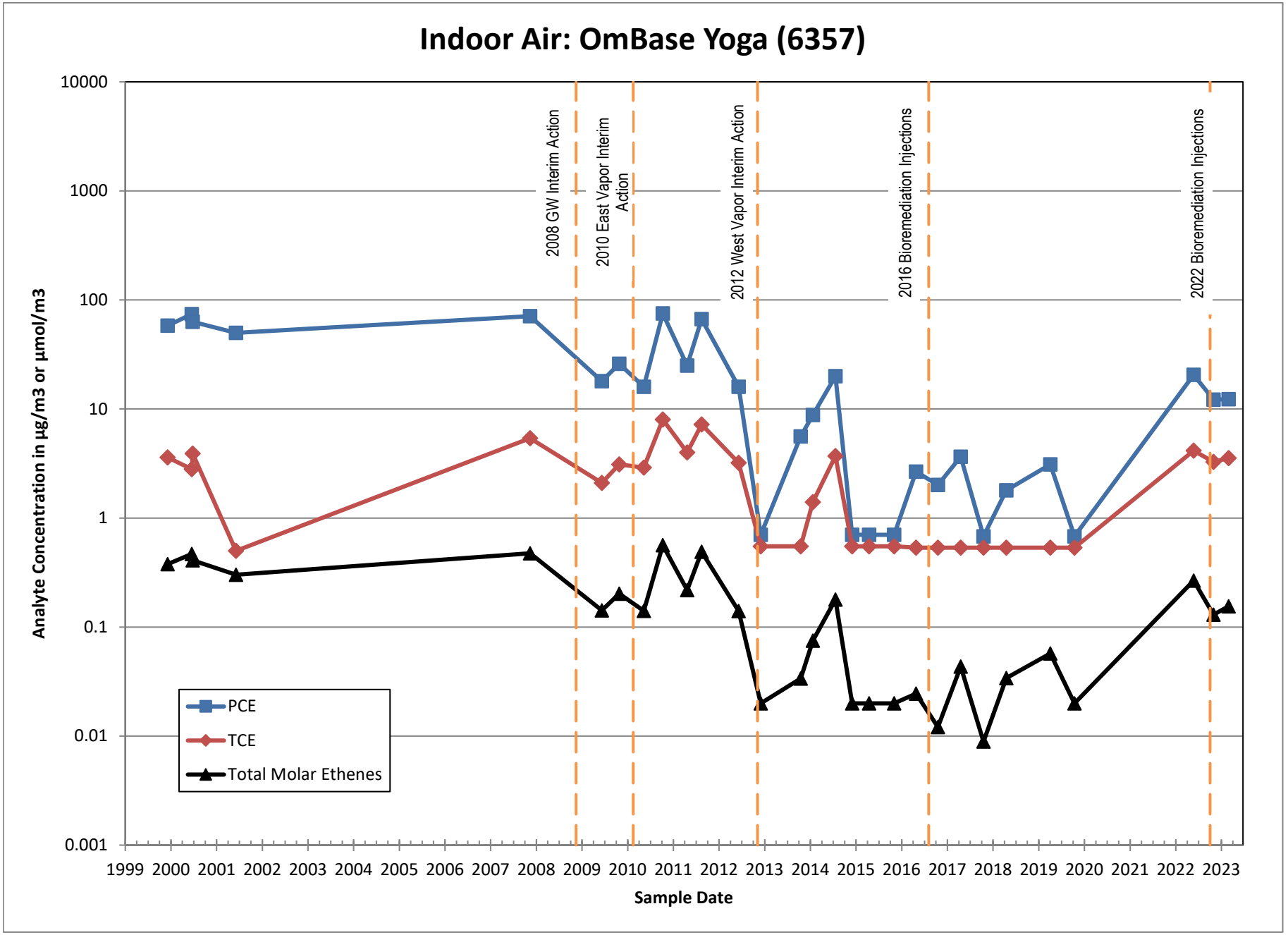

Indoor Air: Springdale Cleaners (6337)
Analyte Concentration in µg/m3 or µmol/m3
10000
1000
100
10
1
0.1
0.01
0.001
2008 GW Interim Action
2010 East Vapor Interim Action
2012 West Vapor Interim Action
2016 Bioremediation Injections
2022 Bioremediation Injections
PCE
TCE
Total Molar Ethenes
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023
Sample Date

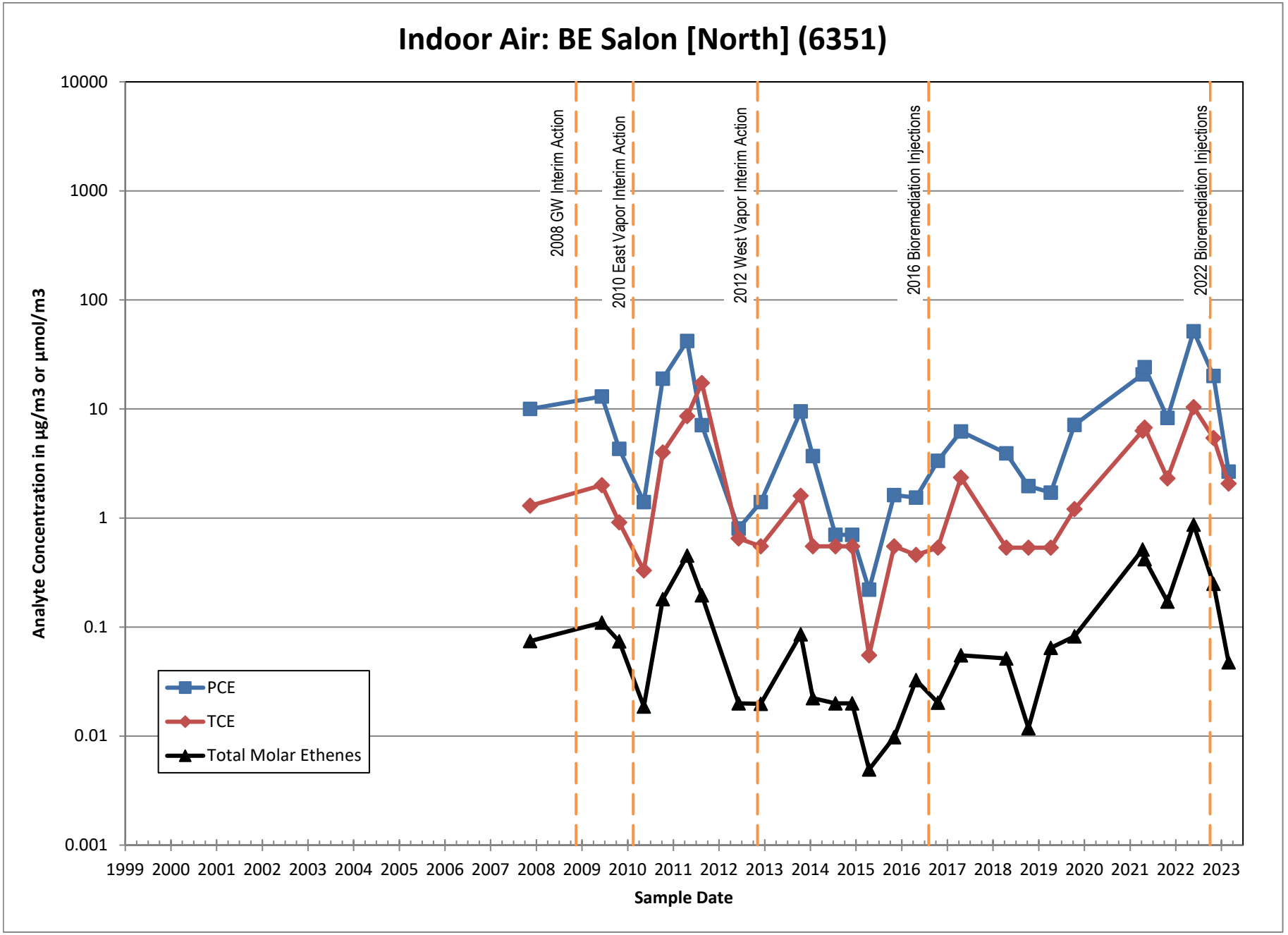

Indoor Air: State Farm Insurance (6335A)
Analyte Concentration in µg/m3 or µmol/m3
10000
1000
100
10
1
0.1
0.01
0.001
2008 GW Interim Action
2010 East Vapor Interim Action
2012 West Vapor Interim Action
2016 Bioremediation Injections
2022 Bioremediation Injections
PCE
TCE
Total Molar Ethenes
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023
Sample Date

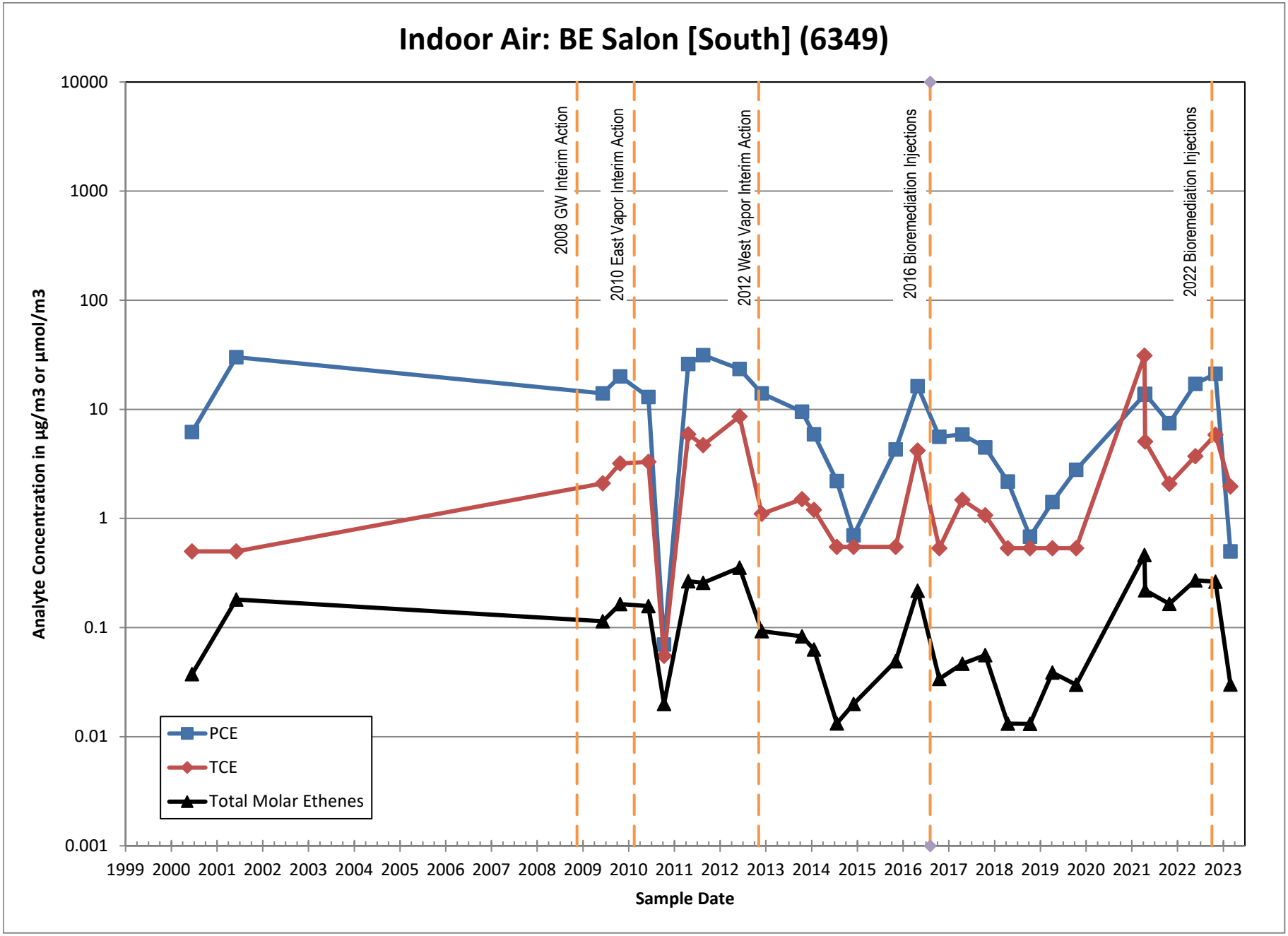

Indoor Air: Key Bank [Rear] (6335B2)
Analyte Concentration in µg/m3 or µmol/m3
10000
1000
100
10
1
0.1
0.01
0.001
2008 GW Interim Action
2010 East Vapor Interim Action
2012 West Vapor Interim Action
2016 Bioremediation Injections
2022 Bioremediation Injections
PCE
TCE
Total Molar Ethenes
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023
Sample Date


Indoor Air: Key Bank Main [Front] (6335B1)
Analyte Concentration in µg/m3 or µmol/m3
10000
1000
100
10
1
0.1
0.01
0.001
2008 GW Interim Action
2010 East Vapor Interim Action
2012 West Vapor Interim Action
2016 Bioremediation Injections
2022 Bioremediation Injections
PCE
TCE
Total Molar Ethenes
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023
Sample Date


Indoor Air: Hillsdale Vet (6359)
Analyte Concentration in µg/m3 or µmol/m3
10000
1000
100
10
1
0.1
0.01
0.001
2008 GW Interim Action
2010 East Vapor Interim Action
2012 West Vapor Interim Action
2016 Bioremediation Injections
2022 Bioremediation Injections
PCE
TCE
Total Molar Ethenes
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023
Sample Date


Indoor Air: OmBase Yoga (6357)
Analyte Concentration in µg/m3 or µmol/m3
10000
1000
100
10
1
0.1
0.01
0.001
2008 GW Interim Action
2010 East Vapor Interim Action
2012 West Vapor Interim Action
2016 Bioremediation Injections
2022 Bioremediation Injections
PCE
TCE
Total Molar Ethenes
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023
Sample Date


Indoor Air: BE Salon [North] (6351)
Analyte Concentration in µg/m3 or µmol/m3
10000
1000
100
10
1
0.1
0.01
0.001
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023
Sample Date
2008 GW Interim Action
2010 East Vapor Interim Action
2012 West Vapor Interim Action
2016 Bioremediation Injections
2022 Bioremediation Injections
PCE
TCE
Total Molar Ethenes


Indoor Air: BE Salon [South] (6349)
Analyte Concentration in µg/m3 or µmol/m3
10000
1000
100
10
1
0.1
0.01
0.001
2008 GW Interim Action
2010 East Vapor Interim Action
2012 West Vapor Interim Action
2016 Bioremediation Injections
2022 Bioremediation Injections
PCE
TCE
Total Molar Ethenes
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023
Sample Date