**Carryl MacLeod**
Project Manager, Marketing Business Unit

Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Former Chevron Service Station 90121
3026 Lakeshore Avenue
Oakland, CA
ACEH Site Cleanup Case #RO0000284

I have read and acknowledge the content, recommendations and/or conclusions contained in the attached *Additional Soil Gas and Indoor Air Assessment* submitted on my behalf to SWRCB's GeoTracker website.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge

Sincerely,

Carryl MacLeod
Project Manager

Attachment: *Additional Soil Gas and Indoor Air Assessment*

**Chevron Environmental Management Company**
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Mr. Mark Detterman
Alameda County Department of Environmental Health
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Alameda, California, 94502-6577

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ENVIRONMENT

Subject:
Additional Soil Gas and Indoor Air Assessment
Buildings at 3014 and 3008 Lakeshore Avenue
Oakland, California

Date:
March 16, 2018

Contact:
Katherine Szymanowski

Phone:
510.596.9675

Email:
katherine.szymanowski@arcadis.com

Our ref:
B0090121.IASV

Dear Mr. Detterman:

On behalf of Chevron Environmental Management Company (CEMC), Arcadis U.S., Inc. (Arcadis) provides this Additional Soil Gas and Indoor Air Assessment Report (Report) to assess potential vapor intrusion at the buildings located at 3014 and 3008 Lakeshore Avenue (the Buildings) from operations at the former service station located at 3026 Lakeshore Avenue in Oakland, California (the Site). This Report was requested by Alameda County Department of Environmental Health (ACDEH) in a meeting on February 1, 2018 (Attachment A). On January 26, 2018, Arcadis sampled and analyzed water from the basement sump at the 3014 Lakeshore Avenue building and has included this data and discussion in this Report. On February 22, 2018, Arcadis conducted indoor air and subslab soil vapor sampling activities at the Buildings.

Based on the 2013, 2014,[1] and current 2018 data, Arcadis concludes that there is no risk, including imminent risk, to human health in the Buildings associated with historical service station operations at the Site, because vapor intrusion from the subsurface is not occurring.

**Brief Site Description**

The Site is currently a vacant lot on the southern corner of Lakeshore Avenue and MacArthur Boulevard (Figure 1). A service station operated at the Site from 1928 to 2009. The service station was closed in 2009 and was demolished in 2010, removing the secondary source. Surrounding land use is a mixture of commercial and residential, with Lake Merritt and a city park located north across Lakeshore Avenue.

[1] CRA. 2014. Crawl Space, Indoor and Outdoor Ambient Air, and Sub-Slab Soil Gas Investigation Report, Former Chevron Service Station 90121, 3026 Lakeshore Avenue, Oakland California. December.

**Field Activities**

Arcadis conducted indoor air and subslab soil vapor sampling on February 22, 2018, in accordance with Department of Toxic Substances Control (DTSC) guidance (DTSC 2011). Sixteen air samples were collected using individually certified Summa canisters and sent to ECS Laboratories of Mount Juliet, Kentucky, under standard chain-of-custody protocols and analyzed by United States Environmental Protection Agency (USEPA) Method TO-15 and ASTM International (ASTM) Method D1946. Twelve of these samples (including one duplicate) were collected from indoor and ambient air; four (including one duplicate) were collected from existing subslab soil vapor probes (SSVP-1, SSVP-2, and SSVP-3). Each of the three SSVPs and one of the indoor air samples (3014-IA-SSVP-3) were also sampled using sorbent tubes, which were sent to Eurofins of Folsom, California, under standard chain-of-custody procedures and analyzed for naphthalene using USEPA Method TO-17. Sample locations are shown on Figure 2 along with the layouts of the Buildings, and are summarized as follows:

- Three existing SSVPs were sampled at 3014 Lakeshore Avenue. The SSVPs are screened at 0.7 feet below ground surface.
- Six indoor air samples were collected from the 3014 Lakeshore Avenue building, which has been vacant for many years. Samples within the 3014 Lakeshore Avenue building were collected from previously sampled indoor air locations, the restroom, and the area near the basement sump.
- Three indoor air samples were collected from the 3008 Lakeshore Avenue building, which included a restroom sample and samples in areas occupied by the business. Some sections (northwestern portion) of the building were not accessible.
- Two outdoor (background) air samples were collected from the front of the Buildings as shown on Figure 2.

Fixed gas results for the SSVP samples are shown in Table 1:

**Table 1. Fixed Gas Results from SSVP Samples**

| | SSVP-1 | SSVP-2 | SV-DUP-1 | SSVP-3 |
|---|---|---|---|---|
| Oxygen | 17.6% | 17.5% | 17.0% | 17.5% |
| Carbon Dioxide | < 0.500% | < 0.500% | 0.556% | < 0.500% |
| Methane | < 0.400% | < 0.400% | < 0.400% | < 0.400% |
| Helium | < 1.00% | < 1.00% | < 1.00% | < 1.00% |

< indicated the laboratory reporting limit value.

Helium was monitored during sample collection and the percent helium ranged between 19% and 30%. The lack of helium detections (helium is used as a leak tracer) indicates that the SSVP samples are truly representative of soil vapor and not compromised by leaks of atmospheric gas. The oxygen measurements were in the range of 17.0 to 17.6% (atmospheric gas contains at least 19% oxygen). Further data validation and analytical laboratory data are included in Appendix B.

### 3014 Lakeshore Avenue Basement Sump Water Analysis

The basement sump in the 3014 Lakeshore Avenue building has been identified as a potential preferential pathway for dissolved-phase petroleum hydrocarbons originating from the Site. Water in the basement sump was sampled by Gettler-Ryan on January 26, 2018. At that time, there was approximately 6 inches of standing water in the entire basement. Recent rain events potentially contributed to the increased volume of water present in the basement. The sump was partially purged by low-flow methods. Pre-purge ("Sump (pre)") and post-purge ("Sump (post)") samples were collected and analyzed by USEPA Methods 8260 and 8015, and the results are presented in Table 2.

**Table 2. Basement Sump Water Sampling Results**

| | TPHg | Benzene | Ethylbenzene | Toluene | Total Xylenes | Naphthalene | MTBE |
|---|---|---|---|---|---|---|---|
| Sump (Pre) | **410** µg/L | < 0.5 µg/L | < 0.5 µg/L | < 0.5 µg/L | < 0.5 µg/L | < 1 µg/L | **2** µg/L |
| Sump (Post) | **200** µg/L | < 0.5 µg/L | < 0.5 µg/L | < 0.5 µg/L | < 0.5 µg/L | < 1 µg/L | **2** µg/L |

TPHg = total petroleum hydrocarbons as gasoline
MTBE = Methyl tert-butyl ether
µg/L = micrograms per liter

The detections of TPHg are consistent with historical results for the sump (GHD 2017a). The sump water samples were analyzed for chlorinated volatile organic compounds (VOCs) by USEPA Method 8260; none were detected. Based on these results and the indoor air sampling results described below, no vapor intrusion is occurring from the basement sump at 3014 Lakeshore Avenue. The analytical laboratory reports for the basement sump water samples are included in Attachment B.

### Air Sampling Results and Discussion

Detections in air samples above laboratory reporting limits were compared to commercial/industrial and residential Environmental Screening Levels (ESLs) for indoor air provided in the attached Tables 3a and 3b.[2] The laboratory analytical data is included in Attachment C. ESLs were developed by the San Francisco Bay Regional Water Quality Control Board (RWQCB) to address environmental protection goals presented in the "Water Quality Control Plan for the San Francisco Bay Basin." The indoor air ESLs were developed using USEPA and DTSC human health risk assessment methodology. Under most circumstances, the presence of a chemical in air, soil, or groundwater at concentrations below the corresponding ESL can be assumed to not pose an unacceptable threat to human health. ESLs can be obtained from:

https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/esl.html.

[2] The 3014 Lakeshore Avenue building is currently vacant and had been used for commercial purposes. The first floor of the 3008 Lakeshore Avenue building is also used for commercial purposes. However, at the request of ACDEH, Arcadis included a comparison to residential ESLs in this Report.

**Outdoor Air (Background) Sampling Results**

Outdoor air samples from the 2013 and 2014 indoor air sampling events had detections of benzene ranging from 0.56 micrograms per cubic meter (µg/m³) to 0.99 µg/m³ (Tables 3a and Table 3b).[3] The laboratory analytical data is included in Attachment C. The 2013 and 2014 outdoor air sampling data confirm benzene is present in outdoor air at the Buildings typical of urban environments.

The 2018 outdoor air samples were collected from locations OA-3 and OA-4, as shown on Figure 2. Selection of outdoor air sample locations depends on wind direction and weather. The locations of the outdoor air samples were between the two Buildings.[4] The outdoor air had estimated benzene concentrations above the method detection limit (<0.147 µg/m³) at 0.540 µg/m³ (OA-3) and 0.486 µg/m³ (OA-4) but below the laboratory reporting limit (<0.639 µg/m³).[5] The estimated values from the 2018 sampling event are similar to detections in samples collected in 2013 and 2014 (presented in Tables 3a and 3b). The laboratory reporting limit and the method detection limit are higher than the commercial/industrial ESLs and residential ESLs, but less than the known background level for benzene in outdoor air at the Buildings.

## A. 3014 Lakeshore Avenue

### Benzene

Benzene was not detected in any SSVP locations above laboratory reporting limits (<0.639 µg/m³). Benzene was not detected at concentrations above laboratory reporting limits (<0.639 µg/m³) in the indoor air basement sample located near the sump (IA-SP). Benzene does not appear to be related to vapor intrusion given the absence of detections in the basement sample (IA-SP) and the non-detections above the laboratory reporting limit in the SSVP samples (SSVP-1 and SSVP-3) and at the paired indoor air locations (IA-SSVP-1 and IA-SSVP-3).

As noted in the 3014 Lakeshore Avenue Basement Sump Water Analysis section, benzene was not detected in the water collected from the basement pre or post purge samples.

### 2018 Subslab Soil Vapor Results

The 2018 SSVP sample results with detections above laboratory reporting limits were compared to the Subslab/Soil Gas Vapor Intrusion Human Health ESLs for commercial/industrial and residential scenarios and are included in Table 4. Subslab samples did not have detections above the commercial/industrial ESL or the residential ESL for subslab soil vapor. Laboratory reporting limits were less than both commercial/industrial and residential ESLs. These low subslab

[3] Relevant data from the 2014 Soil Vapor Investigation Report (CRA 2014) was added to the tables for comparison. Locations are presented on a figure included in Attachment D.
[4] The back alley was not accessible at the time of sampling and thus a sample could not be taken from the rear of the Buildings.
[5] A laboratory reporting limit is the limit of detection for a specific target analyte after adjustments are made for dilutions or percent moisture. Most laboratories set the laboratory reporting limit as the lowest point on the calibration curve. The method detection limit is the minimum concentration that an instrument can measure with 99% certainty.

concentrations indicate no health risk associated with vapor intrusion from the subsurface. The subslab soil vapor sampling results are confirmed by indoor air results.

**Review of Prior Indoor Air and Subslab Soil Vapor Probe Results (CRA 2014)**

Arcadis reviewed the prior indoor air, subslab, crawl space, and outdoor air reports (CRA 2014). Benzene concentrations from prior events (CRA 2014) and the current results for the subslab and indoor air indicate that vapor intrusion is not occurring in the 3014 Lakeshore Avenue building. CRA data is included in the attached Tables 3a and 4.

In 2009, Bureau Veritas installed temporary soil vapor probes to 5 feet below ground surface. When the soil vapor wells were installed in 2009, TPHg concentrations in soil vapor ranged from 97,000 to 23,000,000 µg/m³ (Bureau Veritas 2009). The following year, the service station located at the Site was demolished, with all underground storage tanks and related equipment removed.

In 2013, CRA installed subslab soil vapor probes in similar locations as the previous temporary soil vapor probes. As documented in the 2014 report (CRA 2014), TPHg concentrations in soil vapor ranged from 300 to 2,300 µg/m³ (CRA 2014). In 2018 (this study), TPHg concentrations in all three SSVPs were less than the laboratory reporting limit (<413 µg/m³). This indicates a robust natural attenuation of the petroleum hydrocarbon plume beneath 3014 Lakeshore Avenue. In addition, concentrations in indoor air from the 2013 and 2014 investigation results are significantly higher than the detected concentrations of benzene and toluene indicated by the 2018 indoor air results. Ethylbenzene and xylenes were detected in the 2013/2014 investigations but were below laboratory reporting limits in the 2018 investigation. As with the subslab soil vapor samples, indoor air concentrations were significantly reduced from the earlier investigations to a level where vapor intrusion does not appear to be occurring.

In 2013 and 2014, the crawl space (CS-1) was sampled and the data were compared to indoor air ESLs for both commercial/industrial and residential scenarios. CS-1 results indicated detections of benzene at 0.56 µg/m³ (2014) and 0.79 µg/m³ (2013) (Table 3a). These concentrations are above both the commercial/industrial and the residential ESLs but similar to the outdoor air sampling results. As noted above, the outdoor air sampling results are typical of urban environments for benzene.

## B. 3008 Lakeshore Avenue

**Benzene**

Two indoor air samples from 3008 Lakeshore Avenue (restroom location IA-RR) and the duplicate sample (IA-NE) exceeded the benzene commercial/industrial ESL (0.42 µg/m³) and residential ESL (0.097 µg/m³). The parent sample (IA-NE) was below the laboratory reporting limit (<0.639 µg/m³). Benzene was detected at 0.711 µg/m³ and 0.639 µg/m³, respectively. These benzene detections are at or slightly above the laboratory reporting limit (<0.639 µg/m³). There are no SSVPs located at 3008 Lakeshore Avenue; however, as noted above, benzene was not detected in SSVP locations at 3014 Lakeshore Avenue (adjacent to the former service station). Benzene does not appear to be related to vapor intrusion given the absence of detections in the basement sample and the low detections in the soil vapor samples collected at paired locations

with non-detect concentrations at 3014 Lakeshore Avenue. In addition, the detected indoor air concentrations are likely associated with outdoor air concentrations, as discussed below.

**Review of Prior Indoor Air and Subslab Soil Vapor Probe Results (CRA 2014)**

Arcadis reviewed the prior indoor air, subslab, crawl space, and outdoor air reports (CRA 2014). Benzene concentrations from prior events (CRA 2014) and the current results for indoor air indicate that vapor intrusion is not occurring in the 3008 Lakeshore Avenue building. CRA data has been included in the attached Table 3b.

Concentrations in indoor air from the 2013 and 2014 investigation results are significantly higher than the detected concentrations of benzene and toluene indicated by the 2018 indoor air sampling results. Ethylbenzene and xylenes were detected in the 2013/2014 investigations but were below laboratory reporting limits in the 2018 investigation. Indoor air detections were significantly lower than the earlier investigations to a level where vapor intrusion does not appear to be occurring.

In 2013 and 2014, the crawl space (CS-2) was sampled and the data were compared to indoor air ESLs for both commercial/industrial and residential scenarios. CS-2 results indicated detections of benzene at 0.64 µg/m$^3$ (2014) and 0.93 µg/m$^3$ (2013) (Table 3b). These data are above both the commercial/industrial and the residential ESLs but are similar to the outdoor air sampling results. As noted above, the outdoor air results are typical of urban environments for benzene.

## C. Sources of Benzene

The source of benzene in the indoor air samples from 3008 Lakeshore Avenue is likely related to benzene concentrations in the ambient air. Indoor air samples can measure benzene, toluene, ethylbenzene, and xylenes (collectively known as BTEX) and other petroleum hydrocarbon compounds within concentration ranges commonly seen as background values at sites where no subsurface petroleum hydrocarbon contamination is present. There are potentially many ambient sources inside buildings. Materials and substances commonly found in commercial settings, such as paints, paint thinners, gasoline-powered machinery, building materials, cleaning products, dry cleaned clothing, and cigarette smoke, contain VOCs that may be detected by indoor air testing. For example, USEPA states that up to 5 µg/m$^3$ of benzene is common in indoor air due to indoor air sources and outdoor air influences (USEPA 2011). The highest detected benzene concentration in the 3008 Lakeshore Avenue building was 0.711 µg/m$^3$, substantially below the USEPA estimate of background levels. Indoor air concentrations in previous samples collected from the 3008 Lakeshore Avenue building have been similar or greater than the current detections and similar in concentration as the outdoor air samples.

**D. Methylene Chloride at 3014 Lakeshore Avenue[6]**

For the reasons described below, methylene chloride is not considered a constituent of concern for the Site. Methylene chloride is one of the most common laboratory interference compounds as it is used during sample preparation.

Two indoor air samples (IA-SSVP-1 and IA-EAST) had trace methylene chloride concentrations of 1.54 µg/m$^3$ and 1.77 µg/m$^3$, respectively. The detections are below the commercial/industrial indoor air ESL (12 µg/m$^3$) and just slightly above the residential ESL (1 µg/m$^3$). Methylene chloride was not detected in the basement sample (3014-IA-SP) near the sump or the restroom sample (3014-IA-MR). Methylene chloride does not appear to be related to vapor intrusion given the absence of detections in the basement sample and the low detections in the SSVP samples collected at the paired location (SSVP-1).

**Evaluation of Vapor Intrusion Potential and Summary**

It is not possible to interpret whether vapor intrusion is occurring by simply comparing indoor air concentrations against the most conservative screening values, since these values do not account for background concentrations, including indoor air and outdoor air background concentrations, as observed by USEPA (USEPA 2011). Instead, indoor concentrations must be compared to both outdoor air and soil vapor concentrations to determine whether external or indoor sources are contributing to indoor air concentrations. Multiple lines of evidence are used to evaluate whether vapor intrusion could be occurring at a particular site. A clear indication of active vapor intrusion would be a combination of indoor and outdoor air samples where indoor air contained significantly greater concentrations of petroleum hydrocarbon VOCs (e.g., BTEX) than outdoor air, and contained significantly lower concentrations of petroleum hydrocarbon VOCs than subslab soil vapor. No such clear indication is evident from the data.

Arcadis concludes that there is no risk, including imminent risk, to human health in the Buildings resulting from subsurface conditions originating at the Site. Indoor air quality is consistent with outdoor air quality. In addition, based on the 2013, 2014, and 2018 data, there is no clear evidence of vapor intrusion in the Buildings. This Report addresses potential health risk associated with the former service station at the Site and does not consider other sources, such as background concentrations in the Oakland area, or cumulative automobile emissions from the nearby freeway (I-580) and heavily traveled street (Lakeshore Avenue).

Sincerely,

Arcadis U.S., Inc.

Katherine Szymanowski

Katherine Szymanowski, P.G.
Project Manager

PROFESSIONAL GEOLOGIST
KATHERINE BRANDT
No 9132
EXPIRES 3/31/2018
STATE OF CALIFORNIA

Amy Goldberg Day

Amy Goldberg-Day
Principal Toxicologist

[6] Methylene chloride is not a constituent of concern for the Site.

Enclosures:

**Tables**

1 Fixed Gas Results from SSVP Samples (in-text)

2 Basement Sump Water Sampling Results (in text)

3a Indoor and Outdoor Air Analytical Data for 3014 Lakeshore Avenue

3b Indoor and Outdoor Air Analytical Data for 3008 Lakeshore Avenue

4 Subslab Soil Vapor Probe Analytical Data for 3014 Lakeshore Avenue

**Figures**

1 Site Location Map

2 February 2018 Indoor Air Sampling Locations and Site Plan

**Attachments**

A ACEH Meeting Notes, February 01, 2018

B Basement Sump Water Analytical Reports

C Data Validation and Analytical Data Reports

D Figure 2 from CRA 2014 Soil Vapor Investigation Report

References

Bureau Veritas. 2009. Limited Soil Vapor Investigation, Office Building 2014 Lakeshore Avenue, Oakland, California. December.

CRA. 2014. Crawl Space, Indoor and Outdoor Ambient Air, and Sub-Slab Soil Gas Investigation Report, Former Chevron Service Station 90121, 3026 Lakeshore Avenue, Oakland, California. December.

DTSC. 2011. Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance). October.

GHD. 2017a. First Semi-Annual 2017 Groundwater Monitoring and Sampling Report, Former Chevron Service Station 90121, 3026 Lakeshore Avenue, Oakland, California, Fuel Leak Case RO0000284. March.

San Francisco Bay Regional Water Quality Control Board. 2016. Derivation and Application of Environmental Screening Levels. February.

USEPA 2011. Background Indoor Air Concentrations of Volatile Organic Compounds in North American Residences (1990–2005): A Compilation of Statistics for Assessing Vapor Intrusion. June.

# TABLES

**Table 3a**
**Indoor and Outdoor Air Analytical Data**
**Chevron Environmental Management Company**
**3014 Lakeshore Avenue**
**Oakland, California**

| | | | Sample Location | IA-SSVP-1 | IA-SSVP-3 | IA-EAST | IA-SE | IA-SP | IA-MR | IA-1 | IA-2 | IA-3 | IA-4 | IA-5 | IA-1 | IA-2 | IA-3 | IA-4 | IA-5 | CS-1 | CS-1 | OA-3 | OA-4 | OA-1 | OA-1 - DUP | OA-2 | OA-1 | OA-1 - DUP | OA-2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2/22/18 | 2/22/18 | 2/22/18 | 2/22/18 | 2/22/18 | 2/22/18 | 10/6/14 | 10/6/14 | 10/6/14 | 10/6/14 | 10/6/14 | 11/14/13 | 11/14/13 | 11/14/13 | 11/14/13 | 11/14/13 | 10/6/14 | 11/14/13 | 2/22/18 | 2/22/18 | 10/6/14 | 10/6/14 | 10/6/14 | 10/6/14 | 11/14/13 | 11/14/13 | 11/14/13 |
| **Volatile Organic Compounds** | **Residential Value ESL** | **Commercial/ Industrial Value ESL** | **Units** | | | | | **Basement sample** | | | | | **Basement sample** | **Basement sample** | | | | **Basement sample** | | **Crawl Space** | **Crawl Space** | | | | | | | | | |
| | Indoor Air | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TPH gasoline | 590[1] | 2.5E+03 | µg/m³ | <207 | <207 | <207 | <207 | <207 | <207 | <66 | <61 | <67 | <66 | <66 | 150 | 230 | 160 | 150 | 130 | <61 | 120 | <207 | <207 | <66 | <74 | <67 | 65 | 110 | 90 |
| TPH diesel | 140 | 569 | µg/m³ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| TPH* | | | µg/m³ | <207 | <207 | <207 | <207 | <207 | <207 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | <207 | <207 | NA | NA | NA | NA | NA | NA |
| Benzene | 0.097 | 0.42 | µg/m³ | <0.639 | <0.639 | <0.639 | <0.639 | <0.639 | <0.639 | 0.54 | 0.50 | 0.55 | 0.55 | 0.60 | 0.80 | 0.86 | 0.79 | 0.87 | 0.80 | 0.56 | 0.79 | <0.639 | <0.639 | 0.89 | 0.99 | 0.56 | 1.0 | <1.4 | 0.88 |
| Ethylbenzene | 1.12 | 4.9 | µg/m³ | <0.867 | <0.867 | <0.867 | <0.867 | <0.867 | <0.867 | 0.46 | 0.49 | 0.48 | 0.39 | 0.39 | 0.78 | 0.77 | 0.68 | 0.36 | 0.56 | 0.36 | 0.39 | <0.867 | <0.867 | 0.50 | 0.51 | 0.36 | 0.51 | <0.78 | 0.64 |
| Toluene | 3.1E+02 | 1.3E+03 | µg/m³ | <0.753 | 0.826 | <0.753 | <0.753 | <0.753 | <0.753 | 1.90 | 2.00 | 1.80 | 1.90 | 2.20 | 2.80 | 5.00 | 2.80 | 2.10 | 3.20 | 1.90 | 2.00 | <0.753 | <0.753 | 2.70 | 2.70 | 1.70 | 2.7 | 3.70 | 2.90 |
| m&p-Xylene | No ESL | No ESL | µg/m³ | <1.73 | <1.73 | <1.73 | <1.73 | <1.73 | <1.73 | 1.60 | 1.70 | 1.60 | 1.40 | 1.50 | 2.90 | 3.00 | 2.60 | 1.10 | 2.00 | 1.30 | 1.40 | <1.73 | <1.73 | 1.90 | 1.90 | 1.30 | 1.8 | 2.50 | 2.40 |
| o-Xylene | No ESL | No ESL | µg/m³ | <0.867 | <0.867 | <0.867 | <0.867 | <0.867 | <0.867 | 0.62 | 0.66 | 0.61 | 0.48 | 0.51 | 1.20 | 1.10 | 1.00 | 0.34 | 0.78 | 0.47 | 0.49 | <0.867 | <0.867 | 0.64 | 0.65 | 0.46 | 0.62 | 0.84 | 0.85 |
| Total Xylenes** | 1.0E+02 | 4.4E+02 | µg/m³ | *< 2.6*** | *< 2.6*** | *< 2.6*** | *< 2.6*** | *< 2.6*** | *< 2.6*** | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | *< 2.6*** | < 2.6** | NA | *NA* | *NA* | NA | *NA* | *NA* |
| Naphthalene | 0.083 | 0.36 | µg/m³ | <3.30 | 3.30/<0.13* | <3.30 | <3.30 | <3.30 | <3.30 | <4.2/0.60*** | <3.9/0.47*** | <4.3/0.65*** | <4.2 | <4.2/0.55*** | <4.4/0.24*** | <4.0/0.098** | <4.4/0.12*** | <4.2/0.055** | <3.7 | <3.9 | <4.4 | <3.30 | <3.30 | <4.2/0.37*** | <4.7 | <4.3 | <3.9/0.057*** | <24 | <4.3 |
| Acetone | 3.2E+04 | 1.4E+05 | µg/m³ | 15.7 | 13.4 | 13.7 | 3.98 | 3.21 | 6.97 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 3.09 | 4.5500 | NA | NA | NA | NA | NA | NA |
| Chloromethane | 94 | 394 | µg/m³ | 0.888 | 0.756 | 0.890 | 0.903 | 1.36 | 0.861 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 1.77 | 0.7900 | NA | NA | NA | NA | NA | NA |
| 1,4-Dioxane | 0.36 | 1.6 | µg/m³ | <0.721 | <0.721 | <0.721 | <0.721 | <0.721 | <0.721 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.721 | < 0.721 | NA | NA | NA | NA | NA | NA |
| Ethanol | No ESL | No ESL | µg/m³ | 11.9 | 6.46 | 11.7 | 5.80 | 2.17 | 5.65 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 4.50 | 4.4900 | NA | NA | NA | NA | NA | NA |
| Trichlorofluoromethane | No ESL | No ESL | µg/m³ | <1.12 | <1.12 | <1.12 | <1.12 | 1.42 | <1.12 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 1.55 | 1.1200 | NA | NA | NA | NA | NA | NA |
| Dichlorodifluoromethane | No ESL | No ESL | µg/m³ | 1.52 | 1.42 | 1.47 | 1.60 | 1.87 | 1.48 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 2.17 | 1.4500 | NA | NA | NA | NA | NA | NA |
| n-Hexane | No ESL | No ESL | µg/m³ | 0.938 | <0.705 | 0.956 | <0.705 | <0.705 | <0.705 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | <0.705 | <0.705 | NA | NA | NA | NA | NA | NA |
| Methylene Chloride | 1.0 | 12 | µg/m³ | 1.54 | <0.694 | 1.77 | <0.694 | <0.694 | <0.694 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | <0.694 | <0.694 | NA | NA | NA | NA | NA | NA |
| 2-Butanone (MEK) | 5.2E+03 | 2.2E+04 | µg/m³ | <3.69 | <3.69 | <3.69 | <3.69 | <3.69 | <3.69 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | <3.69 | <3.69 | NA | NA | NA | NA | NA | NA |
| 2-Propanol | No ESL | No ESL | µg/m³ | 6.35 | <3.07 | 5.75 | <3.07 | <3.07 | <3.07 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | <3.07 | <3.07 | NA | NA | NA | NA | NA | NA |
| Propene | No ESL | No ESL | µg/m³ | <0.689 | <0.689 | <0.689 | <0.689 | <0.689 | <0.689 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | <0.689 | <0.689 | NA | NA | NA | NA | NA | NA |
| Tetrahydrofuran | No ESL | No ESL | µg/m³ | <0.590 | <0.590 | <0.590 | <0.590 | <0.590 | <0.590 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | <0.590 | <0.590 | NA | NA | NA | NA | NA | NA |
| 1,2,4-Trimethylbenzene | No ESL | No ESL | µg/m³ | <0.982 | <0.982 | <0.982 | <0.982 | <0.982 | <0.982 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | <0.982 | <0.982 | NA | NA | NA | NA | NA | NA |
| 2,2,4-Trimethylpentane | No ESL | No ESL | µg/m³ | <0.934 | <0.934 | <0.934 | <0.934 | <0.934 | <0.934 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | <0.934 | <0.934 | NA | NA | NA | NA | NA | NA |

RWQCB = Regional Water Quality Control Board
RWQCB Environmental Screening Levels (ESL) values for commercial/industrial and residential indoor air, direct exposure scenario used
1. ESL for odor/nuisance is lower for TPH gasoline: 100 µg/m3
NA = Not analyzed
* TPH = TPH gasoline + TPH diesel
** Total Xylenes = m&p-Xylene + o-Xylene
*** Naphthalene by TO-17

**Table 3b**
**Indoor and Outdoor Air Analytical Data**
**Chevron Environmental Management Company**
**3008 Lakeshore Avenue**
**Oakland, California**

| | | | Sample Location | IA-SE | IA-RR | IA-DUP-1 | IA-NE | IA-6 | IA-6 | CS-2 | CS-2 | OA-3 | OA-4 | OA-1 | OA-1 - DUP | OA-2 | OA-1 | OA-1 - DUP | OA-2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 2/22/18 | 2/22/18 | 2/22/18 | 2/22/18 | 10/6/14 | 11/14/13 | 10/6/14 | 11/14/13 | 2/22/18 | 2/22/18 | 10/6/14 | 10/6/14 | 10/6/14 | 11/14/13 | 11/14/13 | 11/14/13 |
| Volatile Organic Compour | Residential Value ESL | Commercial/ Industrial Value ESL | Units | | | Duplicate of IA-NE | | | | | | | | | | | | | |
| TPH gasoline | 590[1] | 2.5E+03 | µg/m³ | <207 | <207 | <207 | <207 | <100 | 410 | <66 | 94 | <207 | <207 | <66 | <74 | <67 | 65 | 110 | 90 |
| TPH diesel | 140 | 569 | µg/m³ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| TPH | | | µg/m³ | <207 | <207 | <207 | <207 | NA | NA | NA | NA | <207 | <207 | NA | NA | NA | NA | NA | NA |
| Benzene | 0.097 | 0.42 | µg/m³ | <0.639 | 0.711 | 0.639 | <0.639 | 0.66 | 0.82 | 0.64 | 0.93 | <0.639 | <0.639 | 0.89 | 0.99 | 0.56 | 1.0 | <1.4 | 0.88 |
| Ethylbenzene | 1.12 | 4.9 | µg/m³ | <0.867 | <0.867 | <0.867 | <0.867 | 0.44 | 0.53 | 0.38 | 0.57 | <0.867 | <0.867 | 0.50 | 0.51 | 0.36 | 0.51 | <0.78 | 0.64 |
| Toluene | 3.1E+02 | 1.3E+03 | µg/m³ | 0.779 | 0.863 | <0.753 | 1.29 | 2.30 | 2.40 | 1.90 | 2.70 | <0.753 | <0.753 | 2.70 | 2.70 | 1.70 | 2.7 | 3.70 | 2.90 |
| m&p-Xylene | No ESL | No ESL | µg/m³ | <1.73 | <1.73 | <1.73 | <1.73 | 1.40 | 2.00 | 1.30 | 2.10 | <1.73 | <1.73 | 1.90 | 1.90 | 1.30 | 1.8 | 2.50 | 2.40 |
| o-Xylene | No ESL | No ESL | µg/m³ | <0.867 | <0.867 | <0.867 | <0.867 | 0.52 | 0.70 | 0.47 | 0.71 | <0.867 | <0.867 | 0.64 | 0.65 | 0.46 | 0.62 | 0.84 | 0.85 |
| Total Xylenes | 1.0E+02 | 4.4E+02 | µg/m³ | *< 2.6*** | *< 2.6*** | *< 2.6*** | *< 2.6*** | *NA* | *NA* | *NA* | NA | *< 2.6*** | < 2.6** | NA | *NA* | *NA* | NA | *NA* | *NA* |
| Naphthalene | 0.083 | 0.36 | µg/m³ | <3.30 | <3.30 | <3.30 | <3.30 | <6.6 | <4.7 | *<4.2* | <1.1 | <3.30 | <3.30 | <4.2/0.37*** | <4.7 | <4.3 | <3.9/0.057** | <24 | <4.3 |
| Acetone | 3.2E+04 | 1.4E+05 | µg/m³ | 15.3 | 15.8 | 13.1 | 21.2 | NA | NA | NA | NA | 3.09 | 4.5500 | NA | NA | NA | NA | NA | NA |
| Chloromethane | 94 | 394 | µg/m³ | 1.48 | 1.52 | 1.43 | 0.927 | NA | NA | NA | NA | 1.77 | 0.7900 | NA | NA | NA | NA | NA | NA |
| 1,4-Dioxane | 0.36 | 1.6 | µg/m³ | < 0.721 | < 0.721 | < 0.721 | < 0.721 | NA | NA | NA | NA | < 0.721 | < 0.721 | NA | NA | NA | NA | NA | NA |
| Ethanol | No ESL | No ESL | µg/m³ | 436 | 793 | 783 | 524 | NA | NA | NA | NA | 4.50 | 4.4900 | NA | NA | NA | NA | NA | NA |
| Trichlorofluoromethane | No ESL | No ESL | µg/m³ | 1.46 | 1.47 | 1.36 | 1.14 | NA | NA | NA | NA | 1.55 | 1.1200 | NA | NA | NA | NA | NA | NA |
| Dichlorodifluoromethane | No ESL | No ESL | µg/m³ | 2.06 | 2.22 | 1.98 | 1.50 | NA | NA | NA | NA | 2.17 | 1.4500 | NA | NA | NA | NA | NA | NA |
| n-Hexane | No ESL | No ESL | µg/m³ | <0.705 | <0.705 | <0.705 | <0.705 | NA | NA | NA | NA | <0.705 | <0.705 | NA | NA | NA | NA | NA | NA |
| Methylene Chloride | 1.0 | 12 | µg/m³ | <0.694 | <0.694 | <0.694 | <0.694 | NA | NA | NA | NA | <0.694 | <0.694 | NA | NA | NA | NA | NA | NA |
| 2-Butanone (MEK) | 5.2E+03 | 2.2E+04 | µg/m³ | <3.69 | <3.69 | <3.69 | <3.69 | NA | NA | NA | NA | <3.69 | <3.69 | NA | NA | NA | NA | NA | NA |
| 2-Propanol | No ESL | No ESL | µg/m³ | 30.6 | 30.4 | 30.0 | 21.3 | NA | NA | NA | NA | <3.07 | <3.07 | NA | NA | NA | NA | NA | NA |
| Propene | No ESL | No ESL | µg/m³ | <0.689 | <0.689 | <0.689 | <0.689 | NA | NA | NA | NA | <0.689 | <0.689 | NA | NA | NA | NA | NA | NA |
| Tetrahydrofuran | No ESL | No ESL | µg/m³ | <0.590 | <0.590 | <0.590 | 12.2 | NA | NA | NA | NA | <0.590 | <0.590 | NA | NA | NA | NA | NA | NA |
| 1,2,4-Trimethylbenzene | No ESL | No ESL | µg/m³ | <0.982 | <0.982 | <0.982 | <0.982 | NA | NA | NA | NA | <0.982 | <0.982 | NA | NA | NA | NA | NA | NA |
| 2,2,4-Trimethylpentane | No ESL | No ESL | µg/m³ | <0.934 | <0.934 | <0.934 | <0.934 | NA | NA | NA | NA | <0.934 | <0.934 | NA | NA | NA | NA | NA | NA |

RWQCB = Regional Water Quality Control Board
RWQCB Environmental Screening Levels (ESL) values for commercial/industrial and residential indoor air, direct exposure scenario used
1. ESL for odor/nuisance is lower for TPH gasoline: 100 µg/m3
NA = Not Analyzed
* TPH = TPH gasoline + TPH diesel
** Total Xylenes = m&p-Xylene + o-Xylene
*** Naphthalene by TO-17
2013/2014 Data comprised from GHD 2014 report

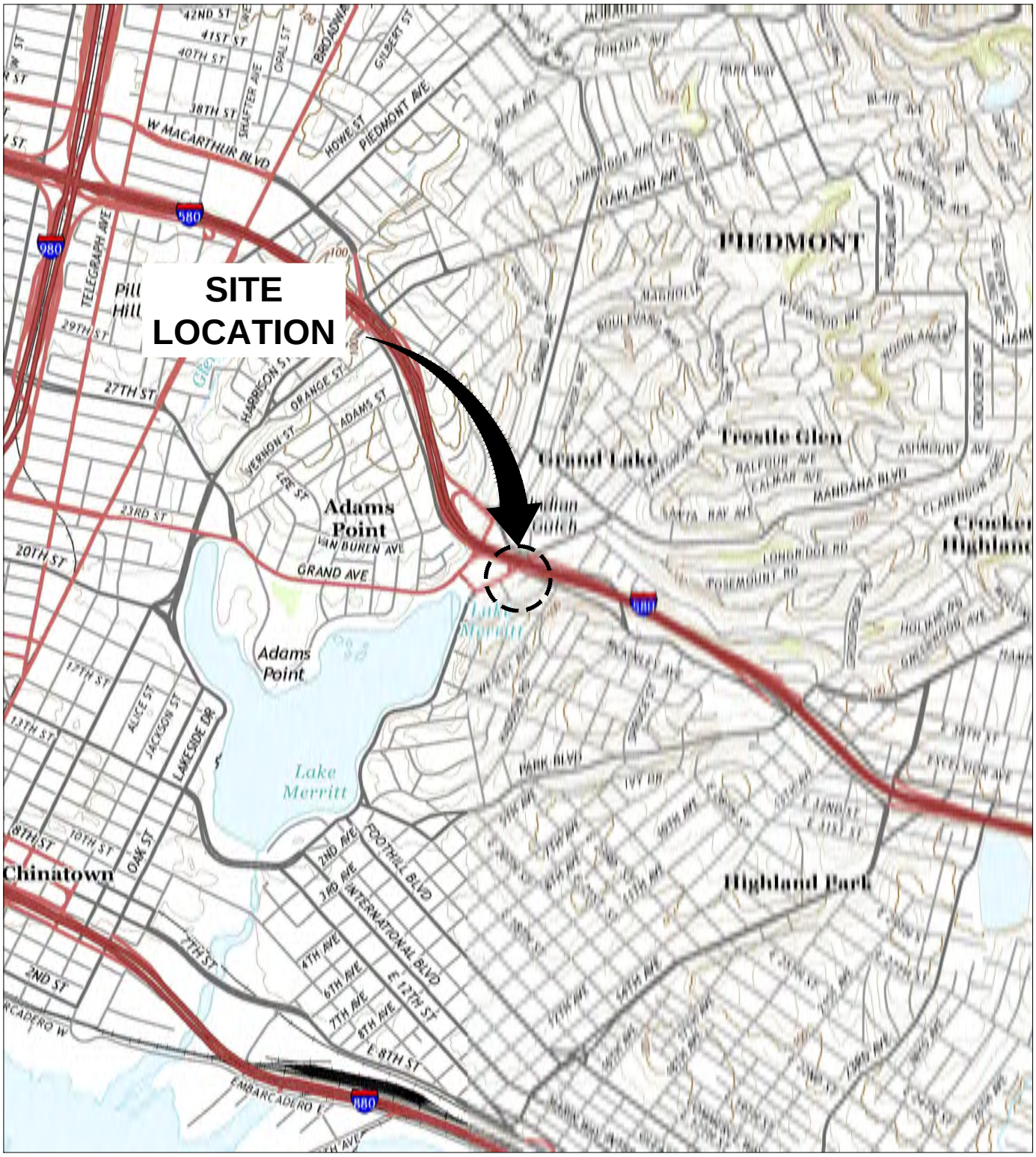
**Table 4**
**Subslab Soil Vapor Probe Analytical Data**
**Chevron Environmental Management Company**
**3014 Lakeshore Avenue**
**Oakland, California**

| | Sample Location<br>Sample Date | Subslab Soil Vapor Samples | | SSVP-1<br>2/22/18 | SSVP-2<br>2/22/18 | SSVP-3<br>2/22/18 | SV-DUP-1<br>2/22/18 | SSVP-1<br>10/7/14 | SSVP-2<br>10/7/14 | SSVP-2-DUP<br>10/7/14 | SSVP-3<br>10/7/14 | SSVP-1<br>11/15/13 | SSVP-2<br>11/15/13 | SSVP-3<br>11/15/13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Volatile Organic Compour | Units | Residential ESL | Commercial/ Industrial ESL | | | | Duplicate of SSVP-2 | | | | | | | |
| | | Soil Vapor | Soil Vapor | | | | | | | | | | | |
| TPH Low Fraction | µg/m³ | 3.0E+05 | 2.5E+06 | <413 | <413 | <413 | <413 | <240 | 320 | <240 | <250 | 1,700 | 300 | 2,300 |
| TPH diesel | µg/m³ | 6.8E+04 | 5.7E+05 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| TPH* | µg/m³ | | | <413 | <413 | <413 | <413 | NA | NA | NA | NA | NA | NA | NA |
| Benzene | µg/m³ | 48 | 420 | <1.28 | 1.70 | <1.28 | <1.28 | <3.8 | <3.7 | <3.7 | 5.5 | 26 | 7.3 | 22 |
| Ethylbenzene | µg/m³ | 5.6E+02 | 4.9E+03 | <1.73 | 2.93 | 2.82 | <1.73 | <5.1 | 5.1 | <5.0 | <5.3 | 27 | <5.1 | 17 |
| Toluene | µg/m³ | 1.6E+05 | 1.3E+06 | <1.51 | 2.03 | 1.61 | <1.51 | <4.4 | <4.4 | <4.4 | <4.6 | 140 | <4.5 | 10 |
| m&p-Xylene | µg/m³ | No ESL | No ESL | <3.47 | 7.25 | 8.08 | <3.47 | <5.1 | 11 | <5.0 | <5.3 | 91 | <5.1 | 32 |
| o-Xylene | µg/m³ | No ESL | No ESL | <1.73 | <1.73 | 2.09 | <1.73 | <5.1 | <5.0 | <5.0 | <5.3 | 37 | <5.1 | <5.2 |
| Total Xylenes** | µg/m³ | 5.2E+04 | 4.4E+05 | *< 5.2*** | *8.98*** | 10.17 | *< 5.2*** | NA | NA | NA | NA | NA | NA | NA |
| Naphthalene | µg/m³ | 41 | 360 | <6.60/<1.1*** | <6.60/<1.1*** | <6.6/<1.1*** | <6.6 | <25/<5.0*** | <24/<5.0*** | <24 | <25/<5.0*** | <24/<2.5*** | <25/<2.5*** | <25/12*** |
| Acetone | µg/m³ | 1.6E+07 | 1.4E+08 | <5.94 | 77.7 J | 34.2 | 31.1 J | NA | NA | NA | NA | NA | NA | NA |
| Chloromethane | µg/m³ | 4.7E+04 | 3.9E+05 | <0.826 | 5.86 J | 0.927 | <0.826 J | NA | NA | NA | NA | NA | NA | NA |
| 1,4-Dioxane | µg/m³ | 1.8E+02 | 1.6E+03 | <1.44 | 2.38 J | <1.44 | 6.2 J | NA | NA | NA | NA | NA | NA | NA |
| Ethanol | µg/m³ | No ESL | No ESL | 60.2 | 13.4 | 11.3 | 12.1 | NA | NA | NA | NA | NA | NA | NA |
| Trichlorofluoromethane | µg/m³ | No ESL | No ESL | <2.25 | <2.25 | <2.25 | <2.25 | NA | NA | NA | NA | NA | NA | NA |
| Dichlorodifluoromethane | µg/m³ | No ESL | No ESL | <1.98 | <1.98 | <1.98 | <1.98 | NA | NA | NA | NA | NA | NA | NA |
| n-Hexane | µg/m³ | No ESL | No ESL | 1.93 | < 1.41 | 3.62 | 1.42 | NA | NA | NA | NA | NA | NA | NA |
| Methylene Chloride | µg/m³ | 5.1E+02 | 1.2E+04 | 5.14 | 3.82 | 7.18 | 3.96 | NA | NA | NA | NA | NA | NA | NA |
| 2-Butanone (MEK) | µg/m³ | 2.6E+06 | | <7.37 | 10.2 | <7.37 | <7.37 | NA | NA | NA | NA | NA | NA | NA |
| 2-Propanol | µg/m³ | No ESL | No ESL | <6.15 | <6.15 | <6.15 | <6.15 | NA | NA | NA | NA | NA | NA | NA |
| Propene | µg/m³ | No ESL | No ESL | <1.38 | 1.55 | <1.38 | <1.38 | NA | NA | NA | NA | NA | NA | NA |
| Tetrahydrofuran | µg/m³ | No ESL | No ESL | <1.18 | 65.9 J | <1.18 | 3.42 J | NA | NA | NA | NA | NA | NA | NA |
| 1,2,4-Trimethylbenzene | µg/m³ | No ESL | No ESL | <1.96 | 2.20 | 2.15 | <1.96 | NA | NA | NA | NA | NA | NA | NA |
| 2,2,4-Trimethylpentane | µg/m³ | No ESL | No ESL | <1.87 | < 1.87 | 2.22 | <1.87 | NA | NA | NA | NA | NA | NA | NA |

RWQCB Environmental Screening Levels (ESL) values for commercial/industrial and residential Subslab/Soil Gas Vapor Intrusion: Human Health Levels (Table SG-1)scenario used
1. ESL for odor/nuisance is lower for TPH gasoline: 5.0E+04 and 1.0E+05 µg/m3

RWQCB = Regional Water Quality Control Board
ACDEH = Alameda County Department of Environmental Health
NA = Not Analyzed
* TPH = TPH gasoline + TPH diesel
** Total Xylenes = m&p-Xylene + o-Xylene
*** Naphthalene by TO-17
CS = Crawl Space
J = estimated value based on data validation report

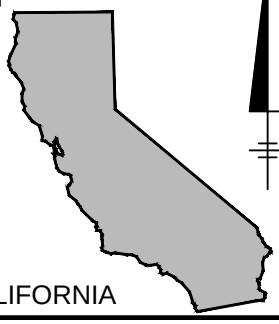
# FIGURES




REFERENCE: BASE MAP USGS 7.5. MIN. TOPO. OAKLAND EAST AND OAKLAND WEST, CALIFORNIA, 2015.

0 2000' 4000'

Approximate Scale: 1 in. = 2000 ft.




FORMER CHEVRON SERVICE STATION 90121
3026 LAKESHORE AVENUE, OAKLAND, CALIFORNIA

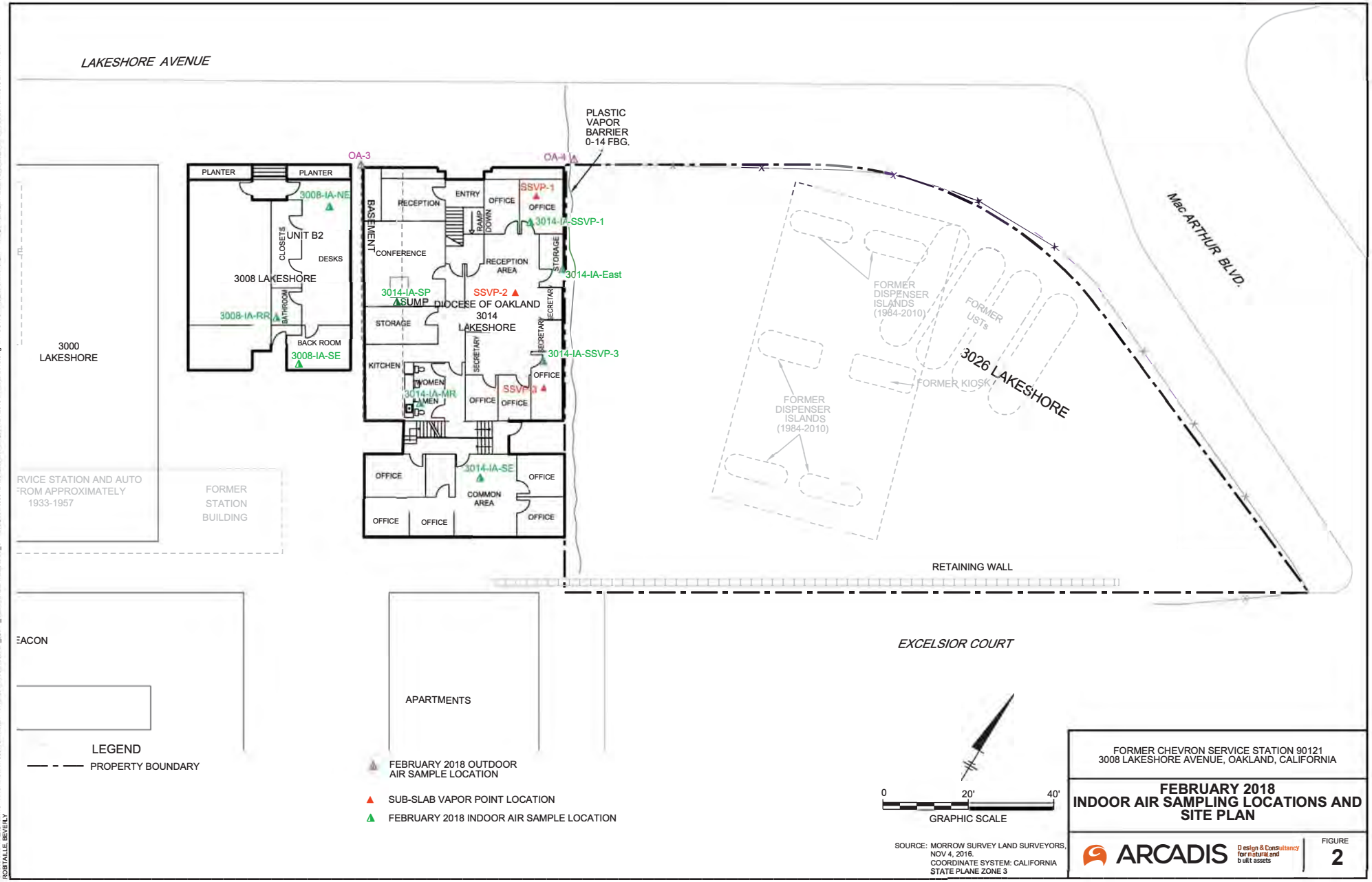
**SITE LOCATION MAP**

ARCADIS Design & Consultancy for natural and built assets

FIGURE
**1**

XREFS: IMAGES: PROJECTNAME: ---
Oakland East 2015.jpg
Oakland West 2015.jpg

CITY: SAN RAFAEL, CA DIV/GROUP: ENVCAD DB: J. HARRIS
C:\Users\jharris\OneDrive - ARCADIS\BIM 360 Docs\CHEVRON CORPORATION\NCA_90121_CM Agency Meeting & GWMR\2018\B0090121.2018\01-DWG\90121 SLM.dwg LAYOUT: 1 SAVED: 3/5/2018 8:10 AM ACADVER: 20.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 3/5/2018 8:13 AM BY: HARRIS, JESS




SOURCE: MORROW SURVEY LAND SURVEYORS, NOV 4, 2016.
COORDINATE SYSTEM: CALIFORNIA STATE PLANE ZONE 3

FORMER CHEVRON SERVICE STATION 90121
3008 LAKESHORE AVENUE, OAKLAND, CALIFORNIA

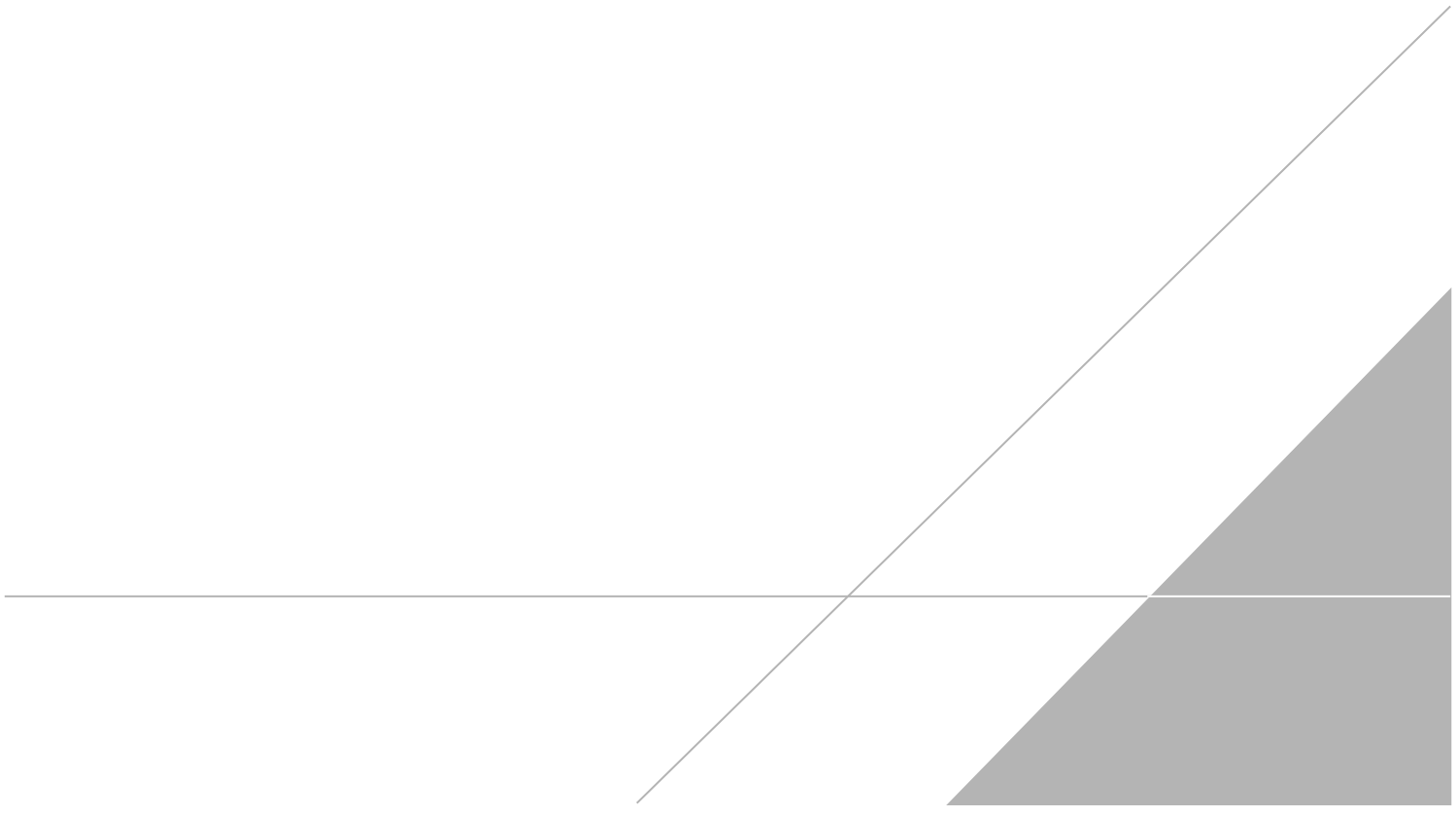
# FEBRUARY 2018 INDOOR AIR SAMPLING LOCATIONS AND SITE PLAN

ARCADIS Design & Consultancy for natural and built assets

FIGURE 2

# ATTACHMENT A

## ACEH Meeting Notes, February 01, 2018



**Health Care Services**

# Alameda County Environmental Health
# Meeting Sign-In Sheet

Chevron #9-0121
3026 Lakeshore Avenue, Oakland, CA
RO0000284

Thursday, February 01, 2018
1:00 PM

| NAME | COMPANY | MAILING ADDRESS | PHONE | Signature | E-MAIL |
|---|---|---|---|---|---|
| Dilan Roe | Alameda County | 1131 Harbor Bay Pkwy, Suite 250 Alameda, CA 94502 | (510) 567-6767 | | dilan.roe@acgov.org |
| Mark Detterman | Alameda County | 1131 Harbor Bay Pkwy, Suite 250 Alameda, CA 94502 | (510) 567-6876 | Mark A | mark.detterman@acgov.org |
| David Lesbkowski | Chabad | 3008 Lakeshore | 510-845 6770 | | Rabbi@JewishOakland.com |
| Nissan Saidian | 3008 Lakeshore | | 510-268 0211 | | david.saidian@gmail.com |
| Michael Delehunt | 555 California St, Ste | Foley & Lardner 555 California St, S.F. CA 94104 | 415-438-6431 | | mdelehunt@foley.com |
| Don Ashton | Bureau Veritas | 2430 Camino Ramon, San Ramon 94583 | 925 260 3102 | | DON.ASHTON@US.BUREAUVERITAS.COM |
| Bob Goodman | Rogers Joseph O'Donnell | 311 Calif St, SF 94104 | 415.956.2828 | | rgoodman@rjo.com |
| Michael Bolster | Chevron | 6001 Bollinger Canyon Rd, San Ramon, CA | 925-842-8957 | | michael.bolster@chevron.com |
| Carryl Macleod | Chevron | 6001 Bollinger Canyon Rm | 925 842 3201 | Carryl Macleod | cmacleod@chevron.com |
| J.P. Brandenburg | Arcadis | 2300 Clayton Rd. Ste 400, Concord, CA, 94520 | 925 296 7847 | | JohnPaul.Brandenburg@Arcadis.com |
| Katherine Szymanowski | Arcadis | 2300 Clayton RD ste 400, Concord, CA 94520 | 510 596 9675 | K.S. | Katherine.Szymanowski@Arcadis.com |
| Clifford Fried | Fried & Williams | 1901 Harrison St 14th Floor Oakland CA 94612 | 510-625-0100 | | cfried@friedwilliams.com |

Paul Pongiovanni Diocese of Oakland 2121 Harrison St., Oakland, 94612 510-267-8321 ppongiovanni@oakdiocese.org

Alameda County Department of Environmental Health Meeting Notes
Chevron Site #90121
3026 Lakeshore Dr., Oakland, CA

**February 1, 2018**

Attendees:

| | |
|---|---|
| Dilan Roe (ACDEH) | Dovid Labkowski (Potential Buyer) |
| Mark Detterman (ACDEH) | Clifford Fried (Potential Buyer Legal) |
| Paul Bongiovanni (Diocese CFO) | Carryl MacLeod (CEMC) |
| Michael Delehunt (Diocese Outside Legal) | JP Brandenburg (Arcadis - CEMC Consultant) |
| Don Ashton (Diocese Consultant) | Kathy Szymanowski (Arcadis via phone) |
| Nissan Saidian (Property Owner) | Michael Balster (CEMC Legal) |
| David Saidian (Property Owner) | Bob Goodman (CEMC Outside Legal) |

**Discussion topics:**

1. On-site soil impacts
2. How site impacts relate to concerns at 3014 Lakeshore (Diocese) and 3008 Lakeshore (Mr. Saidian).
3. Off-site impacts and any related cleanup not to be discussed at this meeting.

**Meeting Notes:**

- ACDEH stated there is a documented vapor intrusion risk and documented impact to the sump at 3014 Lakeshore, although CEMC disagrees that there is a vapor intrusion risk.
- ACDEH considering two separate Corrective Action Plans are needed: one for onsite, and one for offsite impacts. The goal is to reach closure of the site as a vacant lot.
- ACDEH's main concern is the soil immediately adjacent and upgradient from 3014 Lakeshore. In July 2017, ACDEH asked for a Feasibility Study/ Corrective Action Plan (FS/CAP), and has not yet received it. New date set for submittal of FS/CAP (May 30, 2018).
- ACDEH asks Diocese to provide building plans for 3014 Lakeshore, and all vapor and groundwater data they have collected. Diocese consultant has collected 3 soil borings to 5 feet bgs on the 3014 properties, and some unknown number of indoor air samples.
- Once the Diocese provides data and information, ACDEH asks CEMC and Arcadis to generate new cross-sections that show all construction details, storm water systems, property lines, addresses and any other relevant details. Cross sections are to cover both 3014 and 3008 Lakeshore properties.
- ACDEH requests updated maps that show (1) extent of soil impacts, and (2) groundwater plume.
- These cross sections and maps will be part of a FS/CAP. Ecotoxicity Assessment with also be part of FS/CAP.
- ACDEH requested that CEMC engage property owner of 3026 Lakeshore (FWS, Inc.) to confirm concurrence with project direction.
- ACDEH requested Diocese to look at stormwater fixes for the property to stop infiltration of stormwater into the basement as sump pump is not currently operating.

Alameda County Department of Environmental Health Meeting Notes
Chevron Site #90121
3026 Lakeshore Dr., Oakland, CA

**Relevant dates:**

| | |
|---|---|
| February 2 | Diocese consultant to send soil and soil vapor report to ACDEH |
| February 8 | Diocese to send details on 3014 Lakeshore foundation and floorplan to CEMC/ Arcadis |
| February 8 | Adjacent property owner to Diocese (Nissan) to provide sketch of foundation and floorplan for 3008 Lakeshore. CEMC to have Arcadis to provide support. |
| March 9 | Diocese to submit investigation and proposed action to address storm water infiltration into the basement of 3014 Lakeshore as sump pump is not currently operating. |
| March 9 | CEMC to submit HHRA Imminent Health Risk assessment. Residential scenario with sensitive receptor (3014 Lakeshore to be used as school)<br>o If no imminent risk: Proceed with FS/CAP<br>o If imminent risk: Submit recommendations for short-term indoor air mitigation measures at that time and proceed with FS/CAP |
| March 28 | **Next Meeting 10am at ACDEH** to discuss progress |
| May 30 | CEMC to Submit FS/CAP to ACDEH for review |
| June 15 | Begin 30-day public comment period |
| July 16 | End of public comment period |

# ATTACHMENT B

## Basement Sump Water Analytical Reports

# ATTACHMENT C

## Data Validation and Analytical Reports

ARCADIS Design & Consultancy for natural and built assets

CHEVRON 90121

# DATA REVIEW

## Chevron Site 90121

*Volatile Organic Compounds Analyses*

SDG #: L972975

Analyses Performed By:
ESC Lab Sciences
Mount Juliet, Tennessee

Report #: 29367R
Review Level: Tier II
Project: B0090121.IASV.00003

# SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) # L972975 for samples collected in association with the Chevron 90121 site. The review was conducted as a Tier II evaluation and included review of data package completeness. Only analytical data as reported by the laboratory were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

| Sample ID | Lab ID | Matrix | Sample Collection Date | Parent Sample | Analysis | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | VOC | SVOC | TPH | MET | MISC |
| 3014-IA-SSVP-3 | L972975-01 | Air | 2/22/2018 | | X | | | | |
| 3014-IA-SSVP-1 | L972975-02 | Air | 2/22/2018 | | X | | | | |
| 3014-IA-EAST | L972975-03 | Air | 2/22/2018 | | X | | | | |
| 3014-IA-SE | L972975-04 | Air | 2/22/2018 | | X | | | | |
| 3014-IA-SP | L972975-05 | Air | 2/22/2018 | | X | | | | |
| 3008-IA-SE | L972975-06 | Air | 2/22/2018 | | X | | | | |
| 3008-IA-RR | L972975-07 | Air | 2/22/2018 | | X | | | | |
| IA-DUP-1 | L972975-08 | Air | 2/22/2018 | 3008-IA-NE | X | | | | |
| OA-3 | L972975-09 | Air | 2/22/2018 | | X | | | | |
| 3014-IA-MR | L972975-10 | Air | 2/22/2018 | | X | | | | |
| 3008-IA-NE | L972975-11 | Air | 2/22/2018 | | X | | | | |
| OA-4 | L972975-12 | Air | 2/22/2018 | | X | | | | |
| SSVP-1 | L972975-13 | Air | 2/22/2018 | | X | | | | |
| SSVP-3 | L972975-14 | Air | 2/22/2018 | | X | | | | |
| SSVP-2 | L972975-15 | Air | 2/22/2018 | | X | | | | |
| SV-DUP-1 | L972975-16 | Air | 2/22/2018 | SSVP-2 | X | | | | |

## ANALYTICAL DATA PACKAGE DOCUMENTATION

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

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

## ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) Method TO-15 and American Society for Testing and Materials (ASTM) Method D-1946. Data were reviewed in accordance with *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (October 1999).

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

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

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

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

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

## VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

### 1. Holding Times

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

| Method | Matrix | Holding Time | Preservation | Return Canister Pressure |
|---|---|---|---|---|
| USEPA TO-15 and ASTM D-1946 | Air | 30 days from collection to analysis | Ambient Temperature | < -1" Hg |

All samples were analyzed within the specified holding time and return canister pressure criteria.

### 2. Blank Contamination

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

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

Target compounds were detected in the associated QA blanks; however, the associated sample results were either greater than the BAL or not detected. Therefore, qualification of the sample results was not required.

### 3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the method-specified acceptance limits of 70-130%.

All samples exhibited surrogate recoveries within the control limits.

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

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

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

The MS/MSD analysis was not performed on a sample from within this SDG.

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

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The spiked compounds used in the LCS/LCSD analysis must exhibit recoveries within the method-specified acceptance limits of 70% to 130%. The relative percent difference (RPD) between the LCS and LCSD results must be within the method-suggested acceptance limit of 25%.

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

| Samples | Compound | LCS Recovery | LCSD Recovery |
|---|---|---|---|
| 3014-IA-SP<br>3008-IA-SE<br>3008-IA-RR<br>IA-DUP-1<br>OA-3 | 1,4-Dichlorobenzene | 128 % | 134 % |
| | 1,2,4-Trichlorobenzene | 127 % | 135 % |

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

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

The compounds 1,4-dichlorobenzene and 1,2,4-trichlorobenzene were not detected in the samples listed in the previous table; therefore, no qualification is required.

## 6. Field Duplicate Sample Analysis

The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. A control limit of 50% for air matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to five times the reporting limit (RL), a control limit of two times the RL is applied to the difference between the results for air matrices.

Results (in µg/$m^3$ or in percent for the fixed gases) for the field duplicate samples are summarized in the following tables.

| Sample and Field Duplicate Sample: 3008-IA-NE and IA-DUP-1 | | | | | | |
|---|---|---|---|---|---|---|
| Compound | Sample Result | Duplicate Result | RPD | Difference | RL | Evaluation |
| Acetone | 21.2 | 13.1 | 47.2 % | N/A | 2.97 | Acceptable |
| Benzene | 0.639 U | 0.639 | N/A | 0.0 | 0.639 | Acceptable |

| Sample and Field Duplicate Sample: 3008-IA-NE and IA-DUP-1 | | | | | | |
|---|---|---|---|---|---|---|
| Compound | Sample Result | Duplicate Result | RPD | Difference | RL | Evaluation |
| Chloromethane | 0.927 | 1.43 | N/A | 0.090 | 0.503 | Acceptable |
| Ethanol | 524 | 783 | 39.6 % | N/A | 47.5 | Acceptable |
| Trichlorofluoromethane | 1.14 | 1.36 | N/A | 0.22 | 1.12 | Acceptable |
| Dichlorodifluoromethane | 1.50 | 1.98 | N/A | 0.48 | 0.989 | Acceptable |
| 2-Propanol | 21.3 | 30.0 | 33.9 % | N/A | 3.07 | Acceptable |
| Tetrahydrofuran | 12.2 | 4.14 U | N/A | 8.06 | 4.14 | Acceptable |
| Toluene | 1.29 | 0.753 U | N/A | 0.537 | 0.753 | Acceptable |

| Sample and Field Duplicate Sample: SSVP-2 and SV-DUP-1 | | | | | | |
|---|---|---|---|---|---|---|
| Compound | Sample Result | Duplicate Result | RPD | Difference | RL | Evaluation |
| Acetone | 77.7 | 31.1 | 85.7 % | N/A | 5.94 | Exceedance |
| Benzene | 1.70 | 1.28 U | N/A | 0.42 | 1.28 | Acceptable |
| Chloromethane | 5.86 | 0.826 U | 150.6 % | N/A | 0.826 | Exceedance |
| 1,4-Dioxane | 2.38 | 6.20 | N/A | 3.82 | 1.44 | Exceedance |
| Ethanol | 13.4 | 12.1 | 10.2 % | N/A | 2.38 | Acceptable |
| Ethylbenzene | 2.93 | 1.73 U | N/A | 1.20 | 1.73 | Acceptable |
| n-Hexane | 1.41 U | 1.42 | N/A | 0.01 | 1.41 | Acceptable |
| Methylene chloride | 3.82 | 3.96 | N/A | 0.14 | 1.39 | Acceptable |
| 2-Butanone | 10.2 | 7.37 U | N/A | 2.83 | 7.37 | Acceptable |
| Propene | 1.55 | 1.38 U | N/A | 0.17 | 1.38 | Acceptable |
| Tetrahydrofuran | 65.9 | 3.42 | 180.3 % | N/A | 2.72 | Exceedance |
| Toluene | 2.03 | 1.51 U | N/A | 0.52 | 1.51 | Acceptable |
| 1,2,4-Trimethylbenzene | 2.20 | 1.96 U | N/A | 0.24 | 1.96 | Acceptable |
| m&p-Xylene | 7.25 | 3.47 U | N/A | 3.78 | 3.47 | Acceptable |
| Oxygen | 17.5 | 17.0 | 2.9 % | N/A | 2.00 | Acceptable |
| Carbon dioxide | 0.500 U | 0.556 | N/A | 0.056 | 0.500 | Acceptable |

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

The field duplicate samples 3008-IA-NE and IA-DUP-1 exhibited acceptable results. The acetone, chloromethane, 1,4-dioxane, and tetrahydrofuran results for field duplicate samples SSVP-2 and SV-DUP-1 exhibited RPDs or differences greater than the control limits. The acetone, chloromethane, 1,4-dioxane, and tetrahydrofuran results for SSVP-2 and SV-DUP-1 were therefore qualified as estimated.

## 7. System Performance and Overall Assessment

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

## DATA VALIDATION CHECKLIST FOR VOCS

| VOCs: USEPA TO-15 and ASTM D-1946 | Reported | | Performance Acceptable | | Not Required |
|---|---|---|---|---|---|
| | No | Yes | No | Yes | |
| Gas Chromatography/Mass Spectrometry (GC/MS) | | | | | |
| **Tier II Validation** | | | | | |
| Holding Times | | X | | X | |
| Return Canister Pressure (< -1" Hg) | | X | | X | |
| Reporting Limits (Units) | | X | | X | |
| Blanks | | | | | |
| A. Method Blanks | | X | | X | |
| B. Equipment and/or Field Blanks | | | | | X |
| C. Trip Blanks | | | | | X |
| Surrogates Accuracy (%R) | | X | | X | |
| Matrix Spike (MS) %R | X | | | | X |
| Matrix Spike Duplicate (MSD) %R | X | | | | X |
| MS/MSD Precision (RPD) | X | | | | X |
| Laboratory Control Sample (LCS) %R | | X | | X | |
| Laboratory Control Sample Duplicate (LCSD) %R | | X | X | | |
| LCS/LCSD RPD | | X | | X | |
| Laboratory Duplicate Sample RPD | X | | | | X |
| Field Duplicate Sample RPD | | X | X | | |
| Dilution Factor | | X | | X | |

%R - Percent recovery
RPD - Relative percent difference

Validation Performed By: Dennis Dyke

Signature: 

Date: March 5, 2018

# CHAIN OF CUSTODY AND CORRECTED SAMPLE ANALYSIS DATA SHEETS

Company Name/Address:
Arcadis
2300 Clayton Road
Suite 400
Concord, CA 94520

Billing Information:

Report to:
Katherine Szymanowski

Email To:
Katherine.Szymanowski@arcadis.com

Project Description:

City/State Collected: Oakland, CA

Phone (925) 202-7948
Fax:

Client Project #
B0090121.2018.00002

Lab Project #

Collected by (print):
E. Rubin

Site/Facility ID #
Chevron 90121

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)
___ Same Day .....200%
___ Next Day .....100%
___ Two Day .....50%
___ Three Day .....25%

Date Results Needed

Email? ___No ___Yes
FAX? ___No ___Yes

Canister Pressure/Vacuum

Analysis: TO-15 SIM; ASTM D-1946

Chain of Custody Page 1 of 2

ESC LAB SCIENCES
a subsidiary of Pace Analytical

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L972975

D237

Acctnum: ARCAWSCA
Template: T132960
Prelogin: P635807
TSR: Brian Ford
PB: BF 2/16/18
Shipped Via: Saver

| Sample ID | Sample Description | Can # | Date | Time | Initial | Final | Rem./Contaminant | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|
| 3014-IA-SSVP-3 | Indoor Air | 006598 | 2/22/18 | ~~9:06~~ 16:45 | -29.5 | -5 | | -01 |
| 3014-IA-SSVP-1 | | 007972 | 2/22/18 | 8:59-17:10 | -29 | -10 | | -02 |
| 3014-IA-EAST | | 007383 | 2/22/18 | 9:03-17:09 | -29.5 | -5.5 | | -03 |
| 3014-IA-NE | | 008524 | 2/22/18 | 9:08-16:50 | -27.5 | -4.5 | | |
| 3014-IA-SE | | 008766 | 2/22/18 | 9:10-17:16 | -30 | -5 | | -04 |
| 3014-IA-SW | | 008028 | 2/22/18 | 9:11-16:52 | -28 | -4 | | -05 |
| 3008-IA-SE | | 007290 | 2/22/18 | 9:25-17:05 | -30 | -2 | | -06 |
| 3008-IA-NE | | 006841 | 2/22/18 | 9:23-17:00 | -30 | -6 | | |
| 3008-IA-RR | | 005697 | 2/22/18 | 9:24-17:07 | -29.5 | -9 | | -07 |
| IA-DUP-1 | | 008068 | 2/22/18 | | -30 | -2 | | -08 |

7898 6566 1099 7898 6569 8886
7898 6562 7430

Remarks:

Hold #

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Samples returned via: ☐ UPS ☒ FedEx ☐ Courier ☐ ____ |
|---|---|---|---|---|
| | 2/23/18 | 1420 | | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: Amb. °C Bottles Received: 9 |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) | Date: 2-26-18 Time: 0910 |

Condition: (lab use only) +0

COC Seal Intact: ___ Y ___ N ___ NA

pH Checked: NCF: X

Company Name/Address:
Arcadis
2300 Clayton Road
Suite 400
Concord, CA 94520

Billing Information:

Report to:
Katherine Szymanowski

Email To:
Katherine.Sz-ymanowski@arcadis.com

Project Description:

City/State Collected:
Oakland, CA

Phone:
Fax:

Client Project #
B00 90121.2018.00002

Lab Project #

Collected by (print):
E. Rubin

Site/Facility ID #
Chevron 9012

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)
✓ Same Day ..... 200%
___ Next Day ..... 100%
___ Two Day ..... 50%
___ Three Day ..... 25%

Date Results Needed

Email? ___No ___Yes
FAX? ___No ___Yes

Canister Pressure/Vacuum

Analysis: TO-15 SIM; ASTM D-1946

Chain of Custody Page 2 of 2

ESC LABORATORIES
a subsidiary of Pace Analytical
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1272975
Table #
Acctnum: ARCAWSCA
Template: T132560
Prelogin: P735507
TSR: Pam Faid
PB: BF 2/16/18
Shipped Via: Sover

| Sample ID | Sample Description | Can # | Date | Time | Initial | Final | Rem./Contaminant | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|
| OA-3 | Outdoor Air | 005066 | 2/22/18 | 9:23-17:05 | [redacted] | -11 | | -09 |
| OA-4 | Outdoor Air | 006631 | 2/22/18 | 9:48-17:04 | -28.5 | -4 | | |
| SSUP-1 | Outdoor Air Sub-Slab | 006174 | 2/22/18 | 10:02 | -27 | -5 | | |
| SSUP-3 | ↓ | 006550 | 2/22/18 | 17:17 | -25 | -5 | | |
| SSUP-2 | | 009042 | 2/22/18 | 16:56 | -27 | -5 | | |
| SU-DUP-1 | | 008085 | 2/22/18 | | -27 | -5 | | |

Remarks:

| Relinquished by: (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| | 2/23/18 | 14:20 | |
| Relinquished by: (Signature) | Date: | Time: | Received by: (Signature) |
| Relinquished by: (Signature) | Date: | Time: | Received for lab by: (Signature) |

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ____
Temp: Amb. °C Bottles Received: 9
Date: 2-26-18 Time: 0910

Hold #
Condition: (lab use only) 40
COC Seal Intact: ___Y ___N ___NA
pH Checked: NCF: X

## 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 | 5.64 | 13.4 | | 1 | WG1077830 |
| Allyl chloride | 107-05-1 | 76.53 | 0.200 | 0.626 | ND | ND | | 1 | WG1077830 |
| Benzene | 71-43-2 | 78.10 | 0.200 | 0.639 | ND | ND | | 1 | WG1077830 |
| Benzyl Chloride | 100-44-7 | 127 | 0.200 | 1.04 | ND | ND | | 1 | WG1077830 |
| Bromodichloromethane | 75-27-4 | 164 | 0.200 | 1.34 | ND | ND | | 1 | WG1077830 |
| Bromoform | 75-25-2 | 253 | 0.600 | 6.21 | ND | ND | | 1 | WG1077830 |
| Bromomethane | 74-83-9 | 94.90 | 0.200 | 0.776 | ND | ND | | 1 | WG1077830 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 2.00 | 4.43 | ND | ND | | 1 | WG1077830 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.200 | 0.622 | ND | ND | | 1 | WG1077830 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.200 | 1.26 | ND | ND | | 1 | WG1077830 |
| Chlorobenzene | 108-90-7 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077830 |
| Chloroethane | 75-00-3 | 64.50 | 0.200 | 0.528 | ND | ND | | 1 | WG1077830 |
| Chloroform | 67-66-3 | 119 | 0.200 | 0.973 | ND | ND | | 1 | WG1077830 |
| Chloromethane | 74-87-3 | 50.50 | 0.200 | 0.413 | 0.366 | 0.756 | | 1 | WG1077830 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.200 | 1.03 | ND | ND | | 1 | WG1077830 |
| Cyclohexane | 110-82-7 | 84.20 | 0.200 | 0.689 | ND | ND | | 1 | WG1077830 |
| Dibromochloromethane | 124-48-1 | 208 | 0.200 | 1.70 | ND | ND | | 1 | WG1077830 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.200 | 1.54 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077830 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077830 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.200 | 0.810 | ND | ND | | 1 | WG1077830 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.200 | 0.802 | ND | ND | | 1 | WG1077830 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077830 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077830 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077830 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077830 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077830 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077830 |
| Ethanol | 64-17-5 | 46.10 | 0.630 | 1.19 | 3.43 | 6.46 | | 1 | WG1077830 |
| Ethylbenzene | 100-41-4 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077830 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077830 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.200 | 1.12 | ND | ND | | 1 | WG1077830 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.200 | 0.989 | 0.288 | 1.42 | | 1 | WG1077830 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.200 | 1.53 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.200 | 1.40 | ND | ND | | 1 | WG1077830 |
| Heptane | 142-82-5 | 100 | 0.200 | 0.818 | ND | ND | | 1 | WG1077830 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 0.630 | 6.73 | ND | ND | | 1 | WG1077830 |
| n-Hexane | 110-54-3 | 86.20 | 0.200 | 0.705 | ND | ND | | 1 | WG1077830 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.200 | 0.983 | ND | ND | | 1 | WG1077830 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.200 | 0.694 | ND | ND | | 1 | WG1077830 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 1.25 | 5.11 | ND | ND | | 1 | WG1077830 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 1.25 | 3.69 | ND | ND | | 1 | WG1077830 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 1.25 | 5.12 | ND | ND | | 1 | WG1077830 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.200 | 0.819 | ND | ND | | 1 | WG1077830 |
| MTBE | 1634-04-4 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077830 |
| Naphthalene | 91-20-3 | 128 | 0.630 | 3.30 | ND | ND | | 1 | WG1077830 |
| 2-Propanol | 67-63-0 | 60.10 | 1.25 | 3.07 | ND | ND | | 1 | WG1077830 |
| Propene | 115-07-1 | 42.10 | 0.400 | 0.689 | ND | ND | | 1 | WG1077830 |
| Styrene | 100-42-5 | 104 | 0.200 | 0.851 | ND | ND | | 1 | WG1077830 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.200 | 1.37 | ND | ND | | 1 | WG1077830 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.200 | 1.36 | ND | ND | | 1 | WG1077830 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.200 | 0.590 | ND | ND | | 1 | WG1077830 |
| Toluene | 108-88-3 | 92.10 | 0.200 | 0.753 | 0.219 | 0.826 | | 1 | WG1077830 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 0.630 | 4.66 | ND | ND | | 1 | WG1077830 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077830 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077830 |
| Trichloroethylene | 79-01-6 | 131 | 0.200 | 1.07 | ND | ND | | 1 | WG1077830 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077830 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077830 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.200 | 0.934 | ND | ND | | 1 | WG1077830 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.200 | 0.511 | ND | ND | | 1 | WG1077830 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.200 | 0.875 | ND | ND | | 1 | WG1077830 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.200 | 0.704 | ND | ND | | 1 | WG1077830 |
| m&p-Xylene | 1330-20-7 | 106 | 0.400 | 1.73 | ND | ND | | 1 | WG1077830 |
| o-Xylene | 95-47-6 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077830 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 50.0 | 207 | ND | ND | | 1 | WG1077830 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *97.2* | | | | WG1077830 |

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 | 6.61 | 15.7 | | 1 | WG1077830 |
| Allyl chloride | 107-05-1 | 76.53 | 0.200 | 0.626 | ND | ND | | 1 | WG1077830 |
| Benzene | 71-43-2 | 78.10 | 0.200 | 0.639 | ND | ND | | 1 | WG1077830 |
| Benzyl Chloride | 100-44-7 | 127 | 0.200 | 1.04 | ND | ND | | 1 | WG1077830 |
| Bromodichloromethane | 75-27-4 | 164 | 0.200 | 1.34 | ND | ND | | 1 | WG1077830 |
| Bromoform | 75-25-2 | 253 | 0.600 | 6.21 | ND | ND | | 1 | WG1077830 |
| Bromomethane | 74-83-9 | 94.90 | 0.200 | 0.776 | ND | ND | | 1 | WG1077830 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 2.00 | 4.43 | ND | ND | | 1 | WG1077830 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.200 | 0.622 | ND | ND | | 1 | WG1077830 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.200 | 1.26 | ND | ND | | 1 | WG1077830 |
| Chlorobenzene | 108-90-7 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077830 |
| Chloroethane | 75-00-3 | 64.50 | 0.200 | 0.528 | ND | ND | | 1 | WG1077830 |
| Chloroform | 67-66-3 | 119 | 0.200 | 0.973 | ND | ND | | 1 | WG1077830 |
| Chloromethane | 74-87-3 | 50.50 | 0.200 | 0.413 | 0.430 | 0.888 | | 1 | WG1077830 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.200 | 1.03 | ND | ND | | 1 | WG1077830 |
| Cyclohexane | 110-82-7 | 84.20 | 0.200 | 0.689 | ND | ND | | 1 | WG1077830 |
| Dibromochloromethane | 124-48-1 | 208 | 0.200 | 1.70 | ND | ND | | 1 | WG1077830 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.200 | 1.54 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077830 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077830 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.200 | 0.810 | ND | ND | | 1 | WG1077830 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.200 | 0.802 | ND | ND | | 1 | WG1077830 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077830 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077830 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077830 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077830 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077830 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077830 |
| Ethanol | 64-17-5 | 46.10 | 0.630 | 1.19 | 6.29 | 11.9 | | 1 | WG1077830 |
| Ethylbenzene | 100-41-4 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077830 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077830 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.200 | 1.12 | ND | ND | | 1 | WG1077830 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.200 | 0.989 | 0.308 | 1.52 | | 1 | WG1077830 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.200 | 1.53 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.200 | 1.40 | ND | ND | | 1 | WG1077830 |
| Heptane | 142-82-5 | 100 | 0.200 | 0.818 | ND | ND | | 1 | WG1077830 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 0.630 | 6.73 | ND | ND | | 1 | WG1077830 |
| n-Hexane | 110-54-3 | 86.20 | 0.200 | 0.705 | 0.266 | 0.938 | | 1 | WG1077830 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.200 | 0.983 | ND | ND | | 1 | WG1077830 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.200 | 0.694 | 0.443 | 1.54 | | 1 | WG1077830 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 1.25 | 5.11 | ND | ND | | 1 | WG1077830 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 1.25 | 3.69 | ND | ND | | 1 | WG1077830 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 1.25 | 5.12 | ND | ND | | 1 | WG1077830 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.200 | 0.819 | ND | ND | | 1 | WG1077830 |
| MTBE | 1634-04-4 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077830 |
| Naphthalene | 91-20-3 | 128 | 0.630 | 3.30 | ND | ND | | 1 | WG1077830 |
| 2-Propanol | 67-63-0 | 60.10 | 1.25 | 3.07 | 2.58 | 6.35 | | 1 | WG1077830 |
| Propene | 115-07-1 | 42.10 | 0.400 | 0.689 | ND | ND | | 1 | WG1077830 |
| Styrene | 100-42-5 | 104 | 0.200 | 0.851 | ND | ND | | 1 | WG1077830 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.200 | 1.37 | ND | ND | | 1 | WG1077830 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.200 | 1.36 | ND | ND | | 1 | WG1077830 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.200 | 0.590 | ND | ND | | 1 | WG1077830 |
| Toluene | 108-88-3 | 92.10 | 0.200 | 0.753 | ND | ND | | 1 | WG1077830 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 0.630 | 4.66 | ND | ND | | 1 | WG1077830 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077830 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077830 |
| Trichloroethylene | 79-01-6 | 131 | 0.200 | 1.07 | ND | ND | | 1 | WG1077830 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077830 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077830 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.200 | 0.934 | ND | ND | | 1 | WG1077830 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.200 | 0.511 | ND | ND | | 1 | WG1077830 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.200 | 0.875 | ND | ND | | 1 | WG1077830 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.200 | 0.704 | ND | ND | | 1 | WG1077830 |
| m&p-Xylene | 1330-20-7 | 106 | 0.400 | 1.73 | ND | ND | | 1 | WG1077830 |
| o-Xylene | 95-47-6 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077830 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 50.0 | 207 | ND | ND | | 1 | WG1077830 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *96.6* | | | | WG1077830 |

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 | 5.75 | 13.7 | | 1 | WG1077830 |
| Allyl chloride | 107-05-1 | 76.53 | 0.200 | 0.626 | ND | ND | | 1 | WG1077830 |
| Benzene | 71-43-2 | 78.10 | 0.200 | 0.639 | ND | ND | | 1 | WG1077830 |
| Benzyl Chloride | 100-44-7 | 127 | 0.200 | 1.04 | ND | ND | | 1 | WG1077830 |
| Bromodichloromethane | 75-27-4 | 164 | 0.200 | 1.34 | ND | ND | | 1 | WG1077830 |
| Bromoform | 75-25-2 | 253 | 0.600 | 6.21 | ND | ND | | 1 | WG1077830 |
| Bromomethane | 74-83-9 | 94.90 | 0.200 | 0.776 | ND | ND | | 1 | WG1077830 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 2.00 | 4.43 | ND | ND | | 1 | WG1077830 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.200 | 0.622 | ND | ND | | 1 | WG1077830 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.200 | 1.26 | ND | ND | | 1 | WG1077830 |
| Chlorobenzene | 108-90-7 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077830 |
| Chloroethane | 75-00-3 | 64.50 | 0.200 | 0.528 | ND | ND | | 1 | WG1077830 |
| Chloroform | 67-66-3 | 119 | 0.200 | 0.973 | ND | ND | | 1 | WG1077830 |
| Chloromethane | 74-87-3 | 50.50 | 0.200 | 0.413 | 0.431 | 0.890 | | 1 | WG1077830 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.200 | 1.03 | ND | ND | | 1 | WG1077830 |
| Cyclohexane | 110-82-7 | 84.20 | 0.200 | 0.689 | ND | ND | | 1 | WG1077830 |
| Dibromochloromethane | 124-48-1 | 208 | 0.200 | 1.70 | ND | ND | | 1 | WG1077830 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.200 | 1.54 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077830 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077830 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.200 | 0.810 | ND | ND | | 1 | WG1077830 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.200 | 0.802 | ND | ND | | 1 | WG1077830 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077830 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077830 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077830 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077830 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077830 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077830 |
| Ethanol | 64-17-5 | 46.10 | 0.630 | 1.19 | 6.19 | 11.7 | | 1 | WG1077830 |
| Ethylbenzene | 100-41-4 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077830 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077830 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.200 | 1.12 | ND | ND | | 1 | WG1077830 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.200 | 0.989 | 0.298 | 1.47 | | 1 | WG1077830 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.200 | 1.53 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.200 | 1.40 | ND | ND | | 1 | WG1077830 |
| Heptane | 142-82-5 | 100 | 0.200 | 0.818 | ND | ND | | 1 | WG1077830 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 0.630 | 6.73 | ND | ND | | 1 | WG1077830 |
| n-Hexane | 110-54-3 | 86.20 | 0.200 | 0.705 | 0.271 | 0.956 | | 1 | WG1077830 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.200 | 0.983 | ND | ND | | 1 | WG1077830 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.200 | 0.694 | 0.510 | 1.77 | | 1 | WG1077830 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 1.25 | 5.11 | ND | ND | | 1 | WG1077830 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 1.25 | 3.69 | ND | ND | | 1 | WG1077830 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 1.25 | 5.12 | ND | ND | | 1 | WG1077830 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.200 | 0.819 | ND | ND | | 1 | WG1077830 |
| MTBE | 1634-04-4 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077830 |
| Naphthalene | 91-20-3 | 128 | 0.630 | 3.30 | ND | ND | | 1 | WG1077830 |
| 2-Propanol | 67-63-0 | 60.10 | 1.25 | 3.07 | 2.34 | 5.75 | | 1 | WG1077830 |
| Propene | 115-07-1 | 42.10 | 0.400 | 0.689 | ND | ND | | 1 | WG1077830 |
| Styrene | 100-42-5 | 104 | 0.200 | 0.851 | ND | ND | | 1 | WG1077830 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.200 | 1.37 | ND | ND | | 1 | WG1077830 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.200 | 1.36 | ND | ND | | 1 | WG1077830 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.200 | 0.590 | ND | ND | | 1 | WG1077830 |
| Toluene | 108-88-3 | 92.10 | 0.200 | 0.753 | ND | ND | | 1 | WG1077830 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 0.630 | 4.66 | ND | ND | | 1 | WG1077830 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077830 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077830 |
| Trichloroethylene | 79-01-6 | 131 | 0.200 | 1.07 | ND | ND | | 1 | WG1077830 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077830 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077830 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.200 | 0.934 | ND | ND | | 1 | WG1077830 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.200 | 0.511 | ND | ND | | 1 | WG1077830 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.200 | 0.875 | ND | ND | | 1 | WG1077830 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.200 | 0.704 | ND | ND | | 1 | WG1077830 |
| m&p-Xylene | 1330-20-7 | 106 | 0.400 | 1.73 | ND | ND | | 1 | WG1077830 |
| o-Xylene | 95-47-6 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077830 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 50.0 | 207 | ND | ND | | 1 | WG1077830 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *96.3* | | | | WG1077830 |

## 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 | 1.67 | 3.98 | | 1 | WG1077830 |
| Allyl chloride | 107-05-1 | 76.53 | 0.200 | 0.626 | ND | ND | | 1 | WG1077830 |
| Benzene | 71-43-2 | 78.10 | 0.200 | 0.639 | ND | ND | | 1 | WG1077830 |
| Benzyl Chloride | 100-44-7 | 127 | 0.200 | 1.04 | ND | ND | | 1 | WG1077830 |
| Bromodichloromethane | 75-27-4 | 164 | 0.200 | 1.34 | ND | ND | | 1 | WG1077830 |
| Bromoform | 75-25-2 | 253 | 0.600 | 6.21 | ND | ND | | 1 | WG1077830 |
| Bromomethane | 74-83-9 | 94.90 | 0.200 | 0.776 | ND | ND | | 1 | WG1077830 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 2.00 | 4.43 | ND | ND | | 1 | WG1077830 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.200 | 0.622 | ND | ND | | 1 | WG1077830 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.200 | 1.26 | ND | ND | | 1 | WG1077830 |
| Chlorobenzene | 108-90-7 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077830 |
| Chloroethane | 75-00-3 | 64.50 | 0.200 | 0.528 | ND | ND | | 1 | WG1077830 |
| Chloroform | 67-66-3 | 119 | 0.200 | 0.973 | ND | ND | | 1 | WG1077830 |
| Chloromethane | 74-87-3 | 50.50 | 0.200 | 0.413 | 0.437 | 0.903 | | 1 | WG1077830 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.200 | 1.03 | ND | ND | | 1 | WG1077830 |
| Cyclohexane | 110-82-7 | 84.20 | 0.200 | 0.689 | ND | ND | | 1 | WG1077830 |
| Dibromochloromethane | 124-48-1 | 208 | 0.200 | 1.70 | ND | ND | | 1 | WG1077830 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.200 | 1.54 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077830 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077830 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.200 | 0.810 | ND | ND | | 1 | WG1077830 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.200 | 0.802 | ND | ND | | 1 | WG1077830 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077830 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077830 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077830 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077830 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077830 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077830 |
| Ethanol | 64-17-5 | 46.10 | 0.630 | 1.19 | 3.08 | 5.80 | | 1 | WG1077830 |
| Ethylbenzene | 100-41-4 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077830 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077830 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.200 | 1.12 | ND | ND | | 1 | WG1077830 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.200 | 0.989 | 0.324 | 1.60 | | 1 | WG1077830 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.200 | 1.53 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.200 | 1.40 | ND | ND | | 1 | WG1077830 |
| Heptane | 142-82-5 | 100 | 0.200 | 0.818 | ND | ND | | 1 | WG1077830 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 0.630 | 6.73 | ND | ND | | 1 | WG1077830 |
| n-Hexane | 110-54-3 | 86.20 | 0.200 | 0.705 | ND | ND | | 1 | WG1077830 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.200 | 0.983 | ND | ND | | 1 | WG1077830 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.200 | 0.694 | ND | ND | | 1 | WG1077830 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 1.25 | 5.11 | ND | ND | | 1 | WG1077830 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 1.25 | 3.69 | ND | ND | | 1 | WG1077830 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 1.25 | 5.12 | ND | ND | | 1 | WG1077830 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.200 | 0.819 | ND | ND | | 1 | WG1077830 |
| MTBE | 1634-04-4 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077830 |
| Naphthalene | 91-20-3 | 128 | 0.630 | 3.30 | ND | ND | | 1 | WG1077830 |
| 2-Propanol | 67-63-0 | 60.10 | 1.25 | 3.07 | ND | ND | | 1 | WG1077830 |
| Propene | 115-07-1 | 42.10 | 0.400 | 0.689 | ND | ND | | 1 | WG1077830 |
| Styrene | 100-42-5 | 104 | 0.200 | 0.851 | ND | ND | | 1 | WG1077830 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.200 | 1.37 | ND | ND | | 1 | WG1077830 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.200 | 1.36 | ND | ND | | 1 | WG1077830 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.200 | 0.590 | ND | ND | | 1 | WG1077830 |
| Toluene | 108-88-3 | 92.10 | 0.200 | 0.753 | ND | ND | | 1 | WG1077830 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 0.630 | 4.66 | ND | ND | | 1 | WG1077830 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077830 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077830 |
| Trichloroethylene | 79-01-6 | 131 | 0.200 | 1.07 | ND | ND | | 1 | WG1077830 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077830 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077830 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.200 | 0.934 | ND | ND | | 1 | WG1077830 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.200 | 0.511 | ND | ND | | 1 | WG1077830 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.200 | 0.875 | ND | ND | | 1 | WG1077830 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.200 | 0.704 | ND | ND | | 1 | WG1077830 |
| m&p-Xylene | 1330-20-7 | 106 | 0.400 | 1.73 | ND | ND | | 1 | WG1077830 |
| o-Xylene | 95-47-6 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077830 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 50.0 | 207 | ND | ND | | 1 | WG1077830 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *96.5* | | | | WG1077830 |

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 | 1.35 | 3.21 | | 1 | WG1077831 |
| Allyl chloride | 107-05-1 | 76.53 | 0.200 | 0.626 | ND | ND | | 1 | WG1077831 |
| Benzene | 71-43-2 | 78.10 | 0.200 | 0.639 | ND | ND | | 1 | WG1077831 |
| Benzyl Chloride | 100-44-7 | 127 | 0.200 | 1.04 | ND | ND | | 1 | WG1077831 |
| Bromodichloromethane | 75-27-4 | 164 | 0.200 | 1.34 | ND | ND | | 1 | WG1077831 |
| Bromoform | 75-25-2 | 253 | 0.600 | 6.21 | ND | ND | | 1 | WG1077831 |
| Bromomethane | 74-83-9 | 94.90 | 0.200 | 0.776 | ND | ND | | 1 | WG1077831 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 2.00 | 4.43 | ND | ND | | 1 | WG1077831 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.200 | 0.622 | ND | ND | | 1 | WG1077831 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.200 | 1.26 | ND | ND | | 1 | WG1077831 |
| Chlorobenzene | 108-90-7 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077831 |
| Chloroethane | 75-00-3 | 64.50 | 0.200 | 0.528 | ND | ND | | 1 | WG1077831 |
| Chloroform | 67-66-3 | 119 | 0.200 | 0.973 | ND | ND | | 1 | WG1077831 |
| Chloromethane | 74-87-3 | 50.50 | 0.200 | 0.413 | 0.660 | 1.36 | | 1 | WG1077831 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.200 | 1.03 | ND | ND | | 1 | WG1077831 |
| Cyclohexane | 110-82-7 | 84.20 | 0.200 | 0.689 | ND | ND | | 1 | WG1077831 |
| Dibromochloromethane | 124-48-1 | 208 | 0.200 | 1.70 | ND | ND | | 1 | WG1077831 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.200 | 1.54 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077831 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077831 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.200 | 1.20 | ND | ND | J4 | 1 | WG1077831 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.200 | 0.810 | ND | ND | | 1 | WG1077831 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.200 | 0.802 | ND | ND | | 1 | WG1077831 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077831 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077831 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077831 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077831 |
| Ethanol | 64-17-5 | 46.10 | 0.630 | 1.19 | 1.15 | 2.17 | | 1 | WG1077831 |
| Ethylbenzene | 100-41-4 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077831 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.200 | 1.12 | 0.253 | 1.42 | | 1 | WG1077831 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.200 | 0.989 | 0.378 | 1.87 | | 1 | WG1077831 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.200 | 1.53 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.200 | 1.40 | ND | ND | | 1 | WG1077831 |
| Heptane | 142-82-5 | 100 | 0.200 | 0.818 | ND | ND | | 1 | WG1077831 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 0.630 | 6.73 | ND | ND | | 1 | WG1077831 |
| n-Hexane | 110-54-3 | 86.20 | 0.200 | 0.705 | ND | ND | | 1 | WG1077831 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.200 | 0.983 | ND | ND | | 1 | WG1077831 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.200 | 0.694 | ND | ND | | 1 | WG1077831 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 1.25 | 5.11 | ND | ND | | 1 | WG1077831 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 1.25 | 3.69 | ND | ND | | 1 | WG1077831 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 1.25 | 5.12 | ND | ND | | 1 | WG1077831 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.200 | 0.819 | ND | ND | | 1 | WG1077831 |
| MTBE | 1634-04-4 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077831 |
| Naphthalene | 91-20-3 | 128 | 0.630 | 3.30 | ND | ND | | 1 | WG1077831 |
| 2-Propanol | 67-63-0 | 60.10 | 1.25 | 3.07 | ND | ND | | 1 | WG1077831 |
| Propene | 115-07-1 | 42.10 | 0.400 | 0.689 | ND | ND | | 1 | WG1077831 |
| Styrene | 100-42-5 | 104 | 0.200 | 0.851 | ND | ND | | 1 | WG1077831 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.200 | 1.37 | ND | ND | | 1 | WG1077831 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.200 | 1.36 | ND | ND | | 1 | WG1077831 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.200 | 0.590 | ND | ND | | 1 | WG1077831 |
| Toluene | 108-88-3 | 92.10 | 0.200 | 0.753 | ND | ND | | 1 | WG1077831 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 0.630 | 4.66 | ND | ND | | 1 | WG1077831 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077831 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077831 |
| Trichloroethylene | 79-01-6 | 131 | 0.200 | 1.07 | ND | ND | | 1 | WG1077831 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.200 | 0.934 | ND | ND | | 1 | WG1077831 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.200 | 0.511 | ND | ND | | 1 | WG1077831 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.200 | 0.875 | ND | ND | | 1 | WG1077831 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.200 | 0.704 | ND | ND | | 1 | WG1077831 |
| m&p-Xylene | 1330-20-7 | 106 | 0.400 | 1.73 | ND | ND | | 1 | WG1077831 |
| o-Xylene | 95-47-6 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077831 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 50.0 | 207 | ND | ND | | 1 | WG1077831 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *95.6* | | | | WG1077831 |

## 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 | 6.46 | 15.3 | | 1 | WG1077831 |
| Allyl chloride | 107-05-1 | 76.53 | 0.200 | 0.626 | ND | ND | | 1 | WG1077831 |
| Benzene | 71-43-2 | 78.10 | 0.200 | 0.639 | ND | ND | | 1 | WG1077831 |
| Benzyl Chloride | 100-44-7 | 127 | 0.200 | 1.04 | ND | ND | | 1 | WG1077831 |
| Bromodichloromethane | 75-27-4 | 164 | 0.200 | 1.34 | ND | ND | | 1 | WG1077831 |
| Bromoform | 75-25-2 | 253 | 0.600 | 6.21 | ND | ND | | 1 | WG1077831 |
| Bromomethane | 74-83-9 | 94.90 | 0.200 | 0.776 | ND | ND | | 1 | WG1077831 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 2.00 | 4.43 | ND | ND | | 1 | WG1077831 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.200 | 0.622 | ND | ND | | 1 | WG1077831 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.200 | 1.26 | ND | ND | | 1 | WG1077831 |
| Chlorobenzene | 108-90-7 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077831 |
| Chloroethane | 75-00-3 | 64.50 | 0.200 | 0.528 | ND | ND | | 1 | WG1077831 |
| Chloroform | 67-66-3 | 119 | 0.200 | 0.973 | ND | ND | | 1 | WG1077831 |
| Chloromethane | 74-87-3 | 50.50 | 0.200 | 0.413 | 0.714 | 1.48 | | 1 | WG1077831 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.200 | 1.03 | ND | ND | | 1 | WG1077831 |
| Cyclohexane | 110-82-7 | 84.20 | 0.200 | 0.689 | ND | ND | | 1 | WG1077831 |
| Dibromochloromethane | 124-48-1 | 208 | 0.200 | 1.70 | ND | ND | | 1 | WG1077831 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.200 | 1.54 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077831 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077831 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.200 | 1.20 | ND | ND | J4 | 1 | WG1077831 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.200 | 0.810 | ND | ND | | 1 | WG1077831 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.200 | 0.802 | ND | ND | | 1 | WG1077831 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077831 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077831 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077831 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077831 |
| Ethanol | 64-17-5 | 46.10 | 25.2 | 47.5 | 231 | 436 | | 40 | WG1078157 |
| Ethylbenzene | 100-41-4 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077831 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.200 | 1.12 | 0.260 | 1.46 | | 1 | WG1077831 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.200 | 0.989 | 0.416 | 2.06 | | 1 | WG1077831 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.200 | 1.53 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.200 | 1.40 | ND | ND | | 1 | WG1077831 |
| Heptane | 142-82-5 | 100 | 0.200 | 0.818 | ND | ND | | 1 | WG1077831 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 0.630 | 6.73 | ND | ND | | 1 | WG1077831 |
| n-Hexane | 110-54-3 | 86.20 | 0.200 | 0.705 | ND | ND | | 1 | WG1077831 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.200 | 0.983 | ND | ND | | 1 | WG1077831 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.200 | 0.694 | ND | ND | | 1 | WG1077831 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 1.25 | 5.11 | ND | ND | | 1 | WG1077831 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 1.25 | 3.69 | ND | ND | | 1 | WG1077831 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 1.25 | 5.12 | ND | ND | | 1 | WG1077831 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.200 | 0.819 | ND | ND | | 1 | WG1077831 |
| MTBE | 1634-04-4 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077831 |
| Naphthalene | 91-20-3 | 128 | 0.630 | 3.30 | ND | ND | | 1 | WG1077831 |
| 2-Propanol | 67-63-0 | 60.10 | 1.25 | 3.07 | 12.5 | 30.6 | | 1 | WG1077831 |
| Propene | 115-07-1 | 42.10 | 0.400 | 0.689 | ND | ND | | 1 | WG1077831 |
| Styrene | 100-42-5 | 104 | 0.200 | 0.851 | ND | ND | | 1 | WG1077831 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.200 | 1.37 | ND | ND | | 1 | WG1077831 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.200 | 1.36 | ND | ND | | 1 | WG1077831 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.200 | 0.590 | ND | ND | | 1 | WG1077831 |
| Toluene | 108-88-3 | 92.10 | 0.200 | 0.753 | 0.207 | 0.779 | | 1 | WG1077831 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 0.630 | 4.66 | ND | ND | | 1 | WG1077831 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077831 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077831 |
| Trichloroethylene | 79-01-6 | 131 | 0.200 | 1.07 | ND | ND | | 1 | WG1077831 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.200 | 0.934 | ND | ND | | 1 | WG1077831 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.200 | 0.511 | ND | ND | | 1 | WG1077831 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.200 | 0.875 | ND | ND | | 1 | WG1077831 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.200 | 0.704 | ND | ND | | 1 | WG1077831 |
| m&p-Xylene | 1330-20-7 | 106 | 0.400 | 1.73 | ND | ND | | 1 | WG1077831 |
| o-Xylene | 95-47-6 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077831 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 50.0 | 207 | ND | ND | | 1 | WG1077831 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *93.7* | | | | WG1077831 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *95.9* | | | | WG1078157 |

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 | 6.64 | 15.8 | | 1 | WG1077831 |
| Allyl chloride | 107-05-1 | 76.53 | 0.200 | 0.626 | ND | ND | | 1 | WG1077831 |
| Benzene | 71-43-2 | 78.10 | 0.200 | 0.639 | 0.223 | 0.711 | | 1 | WG1077831 |
| Benzyl Chloride | 100-44-7 | 127 | 0.200 | 1.04 | ND | ND | | 1 | WG1077831 |
| Bromodichloromethane | 75-27-4 | 164 | 0.200 | 1.34 | ND | ND | | 1 | WG1077831 |
| Bromoform | 75-25-2 | 253 | 0.600 | 6.21 | ND | ND | | 1 | WG1077831 |
| Bromomethane | 74-83-9 | 94.90 | 0.200 | 0.776 | ND | ND | | 1 | WG1077831 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 2.00 | 4.43 | ND | ND | | 1 | WG1077831 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.200 | 0.622 | ND | ND | | 1 | WG1077831 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.200 | 1.26 | ND | ND | | 1 | WG1077831 |
| Chlorobenzene | 108-90-7 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077831 |
| Chloroethane | 75-00-3 | 64.50 | 0.200 | 0.528 | ND | ND | | 1 | WG1077831 |
| Chloroform | 67-66-3 | 119 | 0.200 | 0.973 | ND | ND | | 1 | WG1077831 |
| Chloromethane | 74-87-3 | 50.50 | 0.200 | 0.413 | 0.738 | 1.52 | | 1 | WG1077831 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.200 | 1.03 | ND | ND | | 1 | WG1077831 |
| Cyclohexane | 110-82-7 | 84.20 | 0.200 | 0.689 | ND | ND | | 1 | WG1077831 |
| Dibromochloromethane | 124-48-1 | 208 | 0.200 | 1.70 | ND | ND | | 1 | WG1077831 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.200 | 1.54 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077831 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077831 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.200 | 1.20 | ND | ND | J4 | 1 | WG1077831 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.200 | 0.810 | ND | ND | | 1 | WG1077831 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.200 | 0.802 | ND | ND | | 1 | WG1077831 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077831 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077831 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077831 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077831 |
| Ethanol | 64-17-5 | 46.10 | 25.2 | 47.5 | 420 | 793 | | 40 | WG1077831 |
| Ethylbenzene | 100-41-4 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077831 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.200 | 1.12 | 0.262 | 1.47 | | 1 | WG1077831 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.200 | 0.989 | 0.449 | 2.22 | | 1 | WG1077831 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.200 | 1.53 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.200 | 1.40 | ND | ND | | 1 | WG1077831 |
| Heptane | 142-82-5 | 100 | 0.200 | 0.818 | ND | ND | | 1 | WG1077831 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 0.630 | 6.73 | ND | ND | | 1 | WG1077831 |
| n-Hexane | 110-54-3 | 86.20 | 0.200 | 0.705 | ND | ND | | 1 | WG1077831 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.200 | 0.983 | ND | ND | | 1 | WG1077831 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.200 | 0.694 | ND | ND | | 1 | WG1077831 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 1.25 | 5.11 | ND | ND | | 1 | WG1077831 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 1.25 | 3.69 | ND | ND | | 1 | WG1077831 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 1.25 | 5.12 | ND | ND | | 1 | WG1077831 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.200 | 0.819 | ND | ND | | 1 | WG1077831 |
| MTBE | 1634-04-4 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077831 |
| Naphthalene | 91-20-3 | 128 | 0.630 | 3.30 | ND | ND | | 1 | WG1077831 |
| 2-Propanol | 67-63-0 | 60.10 | 1.25 | 3.07 | 12.4 | 30.4 | | 1 | WG1077831 |
| Propene | 115-07-1 | 42.10 | 0.400 | 0.689 | ND | ND | | 1 | WG1077831 |
| Styrene | 100-42-5 | 104 | 0.200 | 0.851 | ND | ND | | 1 | WG1077831 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.200 | 1.37 | ND | ND | | 1 | WG1077831 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.200 | 1.36 | ND | ND | | 1 | WG1077831 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.200 | 0.590 | ND | ND | | 1 | WG1077831 |
| Toluene | 108-88-3 | 92.10 | 0.200 | 0.753 | 0.229 | 0.863 | | 1 | WG1077831 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 0.630 | 4.66 | ND | ND | | 1 | WG1077831 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077831 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077831 |
| Trichloroethylene | 79-01-6 | 131 | 0.200 | 1.07 | ND | ND | | 1 | WG1077831 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.200 | 0.934 | ND | ND | | 1 | WG1077831 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.200 | 0.511 | ND | ND | | 1 | WG1077831 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.200 | 0.875 | ND | ND | | 1 | WG1077831 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.200 | 0.704 | ND | ND | | 1 | WG1077831 |
| m&p-Xylene | 1330-20-7 | 106 | 0.400 | 1.73 | ND | ND | | 1 | WG1077831 |
| o-Xylene | 95-47-6 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077831 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 50.0 | 207 | ND | ND | | 1 | WG1077831 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *95.1* | | | | WG1077831 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *91.4* | | | | WG1077831 |

## 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 | 5.52 | 13.1 | | 1 | WG1077831 |
| Allyl chloride | 107-05-1 | 76.53 | 0.200 | 0.626 | ND | ND | | 1 | WG1077831 |
| Benzene | 71-43-2 | 78.10 | 0.200 | 0.639 | 0.200 | 0.639 | | 1 | WG1077831 |
| Benzyl Chloride | 100-44-7 | 127 | 0.200 | 1.04 | ND | ND | | 1 | WG1077831 |
| Bromodichloromethane | 75-27-4 | 164 | 0.200 | 1.34 | ND | ND | | 1 | WG1077831 |
| Bromoform | 75-25-2 | 253 | 0.600 | 6.21 | ND | ND | | 1 | WG1077831 |
| Bromomethane | 74-83-9 | 94.90 | 0.200 | 0.776 | ND | ND | | 1 | WG1077831 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 2.00 | 4.43 | ND | ND | | 1 | WG1077831 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.200 | 0.622 | ND | ND | | 1 | WG1077831 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.200 | 1.26 | ND | ND | | 1 | WG1077831 |
| Chlorobenzene | 108-90-7 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077831 |
| Chloroethane | 75-00-3 | 64.50 | 0.200 | 0.528 | ND | ND | | 1 | WG1077831 |
| Chloroform | 67-66-3 | 119 | 0.200 | 0.973 | ND | ND | | 1 | WG1077831 |
| Chloromethane | 74-87-3 | 50.50 | 0.200 | 0.413 | 0.691 | 1.43 | | 1 | WG1077831 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.200 | 1.03 | ND | ND | | 1 | WG1077831 |
| Cyclohexane | 110-82-7 | 84.20 | 0.200 | 0.689 | ND | ND | | 1 | WG1077831 |
| Dibromochloromethane | 124-48-1 | 208 | 0.200 | 1.70 | ND | ND | | 1 | WG1077831 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.200 | 1.54 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077831 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077831 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.200 | 1.20 | ND | ND | J4 | 1 | WG1077831 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.200 | 0.810 | ND | ND | | 1 | WG1077831 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.200 | 0.802 | ND | ND | | 1 | WG1077831 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077831 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077831 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077831 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077831 |
| Ethanol | 64-17-5 | 46.10 | 25.2 | 47.5 | 415 | 783 | | 40 | WG1077831 |
| Ethylbenzene | 100-41-4 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077831 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.200 | 1.12 | 0.243 | 1.36 | | 1 | WG1077831 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.200 | 0.989 | 0.400 | 1.98 | | 1 | WG1077831 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.200 | 1.53 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.200 | 1.40 | ND | ND | | 1 | WG1077831 |
| Heptane | 142-82-5 | 100 | 0.200 | 0.818 | ND | ND | | 1 | WG1077831 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 0.630 | 6.73 | ND | ND | | 1 | WG1077831 |
| n-Hexane | 110-54-3 | 86.20 | 0.200 | 0.705 | ND | ND | | 1 | WG1077831 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.200 | 0.983 | ND | ND | | 1 | WG1077831 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.200 | 0.694 | ND | ND | | 1 | WG1077831 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 1.25 | 5.11 | ND | ND | | 1 | WG1077831 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 1.25 | 3.69 | ND | ND | | 1 | WG1077831 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 1.25 | 5.12 | ND | ND | | 1 | WG1077831 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.200 | 0.819 | ND | ND | | 1 | WG1077831 |
| MTBE | 1634-04-4 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077831 |
| Naphthalene | 91-20-3 | 128 | 0.630 | 3.30 | ND | ND | | 1 | WG1077831 |
| 2-Propanol | 67-63-0 | 60.10 | 1.25 | 3.07 | 12.2 | 30.0 | | 1 | WG1077831 |
| Propene | 115-07-1 | 42.10 | 0.400 | 0.689 | ND | ND | | 1 | WG1077831 |
| Styrene | 100-42-5 | 104 | 0.200 | 0.851 | ND | ND | | 1 | WG1077831 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.200 | 1.37 | ND | ND | | 1 | WG1077831 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.200 | 1.36 | ND | ND | | 1 | WG1077831 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.200 | 0.590 | ND | ND | | 1 | WG1077831 |
| Toluene | 108-88-3 | 92.10 | 0.200 | 0.753 | ND | ND | | 1 | WG1077831 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 0.630 | 4.66 | ND | ND | | 1 | WG1077831 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077831 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077831 |
| Trichloroethylene | 79-01-6 | 131 | 0.200 | 1.07 | ND | ND | | 1 | WG1077831 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.200 | 0.934 | ND | ND | | 1 | WG1077831 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.200 | 0.511 | ND | ND | | 1 | WG1077831 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.200 | 0.875 | ND | ND | | 1 | WG1077831 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.200 | 0.704 | ND | ND | | 1 | WG1077831 |
| m&p-Xylene | 1330-20-7 | 106 | 0.400 | 1.73 | ND | ND | | 1 | WG1077831 |
| o-Xylene | 95-47-6 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077831 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 50.0 | 207 | ND | ND | | 1 | WG1077831 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *95.6* | | | | WG1077831 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *94.8* | | | | WG1077831 |

## 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 | 1.30 | 3.09 | | 1 | WG1077831 |
| Allyl chloride | 107-05-1 | 76.53 | 0.200 | 0.626 | ND | ND | | 1 | WG1077831 |
| Benzene | 71-43-2 | 78.10 | 0.200 | 0.639 | ND | ND | | 1 | WG1077831 |
| Benzyl Chloride | 100-44-7 | 127 | 0.200 | 1.04 | ND | ND | | 1 | WG1077831 |
| Bromodichloromethane | 75-27-4 | 164 | 0.200 | 1.34 | ND | ND | | 1 | WG1077831 |
| Bromoform | 75-25-2 | 253 | 0.600 | 6.21 | ND | ND | | 1 | WG1077831 |
| Bromomethane | 74-83-9 | 94.90 | 0.200 | 0.776 | ND | ND | | 1 | WG1077831 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 2.00 | 4.43 | ND | ND | | 1 | WG1077831 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.200 | 0.622 | ND | ND | | 1 | WG1077831 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.200 | 1.26 | ND | ND | | 1 | WG1077831 |
| Chlorobenzene | 108-90-7 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077831 |
| Chloroethane | 75-00-3 | 64.50 | 0.200 | 0.528 | ND | ND | | 1 | WG1077831 |
| Chloroform | 67-66-3 | 119 | 0.200 | 0.973 | ND | ND | | 1 | WG1077831 |
| Chloromethane | 74-87-3 | 50.50 | 0.200 | 0.413 | 0.858 | 1.77 | | 1 | WG1077831 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.200 | 1.03 | ND | ND | | 1 | WG1077831 |
| Cyclohexane | 110-82-7 | 84.20 | 0.200 | 0.689 | ND | ND | | 1 | WG1077831 |
| Dibromochloromethane | 124-48-1 | 208 | 0.200 | 1.70 | ND | ND | | 1 | WG1077831 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.200 | 1.54 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077831 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077831 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.200 | 1.20 | ND | ND | J4 | 1 | WG1077831 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.200 | 0.810 | ND | ND | | 1 | WG1077831 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.200 | 0.802 | ND | ND | | 1 | WG1077831 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077831 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077831 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077831 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077831 |
| Ethanol | 64-17-5 | 46.10 | 0.630 | 1.19 | 2.38 | 4.50 | | 1 | WG1077831 |
| Ethylbenzene | 100-41-4 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077831 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.200 | 1.12 | 0.276 | 1.55 | | 1 | WG1077831 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.200 | 0.989 | 0.439 | 2.17 | | 1 | WG1077831 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.200 | 1.53 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.200 | 1.40 | ND | ND | | 1 | WG1077831 |
| Heptane | 142-82-5 | 100 | 0.200 | 0.818 | ND | ND | | 1 | WG1077831 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 0.630 | 6.73 | ND | ND | | 1 | WG1077831 |
| n-Hexane | 110-54-3 | 86.20 | 0.200 | 0.705 | ND | ND | | 1 | WG1077831 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.200 | 0.983 | ND | ND | | 1 | WG1077831 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.200 | 0.694 | ND | ND | | 1 | WG1077831 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 1.25 | 5.11 | ND | ND | | 1 | WG1077831 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 1.25 | 3.69 | ND | ND | | 1 | WG1077831 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 1.25 | 5.12 | ND | ND | | 1 | WG1077831 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.200 | 0.819 | ND | ND | | 1 | WG1077831 |
| MTBE | 1634-04-4 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077831 |
| Naphthalene | 91-20-3 | 128 | 0.630 | 3.30 | ND | ND | | 1 | WG1077831 |
| 2-Propanol | 67-63-0 | 60.10 | 1.25 | 3.07 | ND | ND | | 1 | WG1077831 |
| Propene | 115-07-1 | 42.10 | 0.400 | 0.689 | ND | ND | | 1 | WG1077831 |
| Styrene | 100-42-5 | 104 | 0.200 | 0.851 | ND | ND | | 1 | WG1077831 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.200 | 1.37 | ND | ND | | 1 | WG1077831 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.200 | 1.36 | ND | ND | | 1 | WG1077831 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.200 | 0.590 | ND | ND | | 1 | WG1077831 |
| Toluene | 108-88-3 | 92.10 | 0.200 | 0.753 | ND | ND | | 1 | WG1077831 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 0.630 | 4.66 | ND | ND | | 1 | WG1077831 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077831 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077831 |
| Trichloroethylene | 79-01-6 | 131 | 0.200 | 1.07 | ND | ND | | 1 | WG1077831 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.200 | 0.934 | ND | ND | | 1 | WG1077831 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.200 | 0.511 | ND | ND | | 1 | WG1077831 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.200 | 0.875 | ND | ND | | 1 | WG1077831 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.200 | 0.704 | ND | ND | | 1 | WG1077831 |
| m&p-Xylene | 1330-20-7 | 106 | 0.400 | 1.73 | ND | ND | | 1 | WG1077831 |
| o-Xylene | 95-47-6 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077831 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 50.0 | 207 | ND | ND | | 1 | WG1077831 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *93.8* | | | | WG1077831 |

## 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 | 2.93 | 6.97 | | 1 | WG1078686 |
| Allyl chloride | 107-05-1 | 76.53 | 0.200 | 0.626 | ND | ND | | 1 | WG1078686 |
| Benzene | 71-43-2 | 78.10 | 0.200 | 0.639 | ND | ND | | 1 | WG1078686 |
| Benzyl Chloride | 100-44-7 | 127 | 0.200 | 1.04 | ND | ND | | 1 | WG1078686 |
| Bromodichloromethane | 75-27-4 | 164 | 0.200 | 1.34 | ND | ND | | 1 | WG1078686 |
| Bromoform | 75-25-2 | 253 | 0.600 | 6.21 | ND | ND | | 1 | WG1078686 |
| Bromomethane | 74-83-9 | 94.90 | 0.200 | 0.776 | ND | ND | | 1 | WG1078686 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 2.00 | 4.43 | ND | ND | | 1 | WG1078686 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.200 | 0.622 | ND | ND | | 1 | WG1078686 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.200 | 1.26 | ND | ND | | 1 | WG1078686 |
| Chlorobenzene | 108-90-7 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1078686 |
| Chloroethane | 75-00-3 | 64.50 | 0.200 | 0.528 | ND | ND | | 1 | WG1078686 |
| Chloroform | 67-66-3 | 119 | 0.200 | 0.973 | ND | ND | | 1 | WG1078686 |
| Chloromethane | 74-87-3 | 50.50 | 0.200 | 0.413 | 0.417 | 0.861 | | 1 | WG1078686 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.200 | 1.03 | ND | ND | | 1 | WG1078686 |
| Cyclohexane | 110-82-7 | 84.20 | 0.200 | 0.689 | ND | ND | | 1 | WG1078686 |
| Dibromochloromethane | 124-48-1 | 208 | 0.200 | 1.70 | ND | ND | | 1 | WG1078686 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.200 | 1.54 | ND | ND | | 1 | WG1078686 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1078686 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1078686 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1078686 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.200 | 0.810 | ND | ND | | 1 | WG1078686 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.200 | 0.802 | ND | ND | | 1 | WG1078686 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1078686 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1078686 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1078686 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1078686 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1078686 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1078686 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1078686 |
| Ethanol | 64-17-5 | 46.10 | 0.630 | 1.19 | 2.99 | 5.65 | | 1 | WG1078686 |
| Ethylbenzene | 100-41-4 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1078686 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1078686 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.200 | 1.12 | ND | ND | | 1 | WG1078686 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.200 | 0.989 | 0.300 | 1.48 | | 1 | WG1078686 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.200 | 1.53 | ND | ND | | 1 | WG1078686 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.200 | 1.40 | ND | ND | | 1 | WG1078686 |
| Heptane | 142-82-5 | 100 | 0.200 | 0.818 | ND | ND | | 1 | WG1078686 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 0.630 | 6.73 | ND | ND | | 1 | WG1078686 |
| n-Hexane | 110-54-3 | 86.20 | 0.200 | 0.705 | ND | ND | | 1 | WG1078686 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.200 | 0.983 | ND | ND | | 1 | WG1078686 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.200 | 0.694 | ND | ND | | 1 | WG1078686 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 1.25 | 5.11 | ND | ND | | 1 | WG1078686 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 1.25 | 3.69 | ND | ND | | 1 | WG1078686 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 1.25 | 5.12 | ND | ND | | 1 | WG1078686 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.200 | 0.819 | ND | ND | | 1 | WG1078686 |
| MTBE | 1634-04-4 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1078686 |
| Naphthalene | 91-20-3 | 128 | 0.630 | 3.30 | ND | ND | | 1 | WG1078686 |
| 2-Propanol | 67-63-0 | 60.10 | 1.25 | 3.07 | ND | ND | | 1 | WG1078686 |
| Propene | 115-07-1 | 42.10 | 0.400 | 0.689 | ND | ND | | 1 | WG1078686 |
| Styrene | 100-42-5 | 104 | 0.200 | 0.851 | ND | ND | | 1 | WG1078686 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.200 | 1.37 | ND | ND | | 1 | WG1078686 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.200 | 1.36 | ND | ND | | 1 | WG1078686 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.200 | 0.590 | ND | ND | | 1 | WG1078686 |
| Toluene | 108-88-3 | 92.10 | 0.200 | 0.753 | ND | ND | | 1 | WG1078686 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 0.630 | 4.66 | ND | ND | | 1 | WG1078686 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1078686 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1078686 |
| Trichloroethylene | 79-01-6 | 131 | 0.200 | 1.07 | ND | ND | | 1 | WG1078686 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1078686 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1078686 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.200 | 0.934 | ND | ND | | 1 | WG1078686 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.200 | 0.511 | ND | ND | | 1 | WG1078686 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.200 | 0.875 | ND | ND | | 1 | WG1078686 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.200 | 0.704 | ND | ND | | 1 | WG1078686 |
| m&p-Xylene | 1330-20-7 | 106 | 0.400 | 1.73 | ND | ND | | 1 | WG1078686 |
| o-Xylene | 95-47-6 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1078686 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 50.0 | 207 | ND | ND | | 1 | WG1078686 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *96.7* | | | | WG1078686 |

## 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 | 8.91 | 21.2 | | 1 | WG1078686 |
| Allyl chloride | 107-05-1 | 76.53 | 0.200 | 0.626 | ND | ND | | 1 | WG1078686 |
| Benzene | 71-43-2 | 78.10 | 0.200 | 0.639 | ND | ND | | 1 | WG1078686 |
| Benzyl Chloride | 100-44-7 | 127 | 0.200 | 1.04 | ND | ND | | 1 | WG1078686 |
| Bromodichloromethane | 75-27-4 | 164 | 0.200 | 1.34 | ND | ND | | 1 | WG1078686 |
| Bromoform | 75-25-2 | 253 | 0.600 | 6.21 | ND | ND | | 1 | WG1078686 |
| Bromomethane | 74-83-9 | 94.90 | 0.200 | 0.776 | ND | ND | | 1 | WG1078686 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 2.00 | 4.43 | ND | ND | | 1 | WG1078686 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.200 | 0.622 | ND | ND | | 1 | WG1078686 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.200 | 1.26 | ND | ND | | 1 | WG1078686 |
| Chlorobenzene | 108-90-7 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1078686 |
| Chloroethane | 75-00-3 | 64.50 | 0.200 | 0.528 | ND | ND | | 1 | WG1078686 |
| Chloroform | 67-66-3 | 119 | 0.200 | 0.973 | ND | ND | | 1 | WG1078686 |
| Chloromethane | 74-87-3 | 50.50 | 0.200 | 0.413 | 0.449 | 0.927 | | 1 | WG1078686 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.200 | 1.03 | ND | ND | | 1 | WG1078686 |
| Cyclohexane | 110-82-7 | 84.20 | 0.200 | 0.689 | ND | ND | | 1 | WG1078686 |
| Dibromochloromethane | 124-48-1 | 208 | 0.200 | 1.70 | ND | ND | | 1 | WG1078686 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.200 | 1.54 | ND | ND | | 1 | WG1078686 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1078686 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1078686 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1078686 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.200 | 0.810 | ND | ND | | 1 | WG1078686 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.200 | 0.802 | ND | ND | | 1 | WG1078686 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1078686 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1078686 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1078686 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1078686 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1078686 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1078686 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1078686 |
| Ethanol | 64-17-5 | 46.10 | 25.2 | 47.5 | 278 | 524 | | 40 | WG1078686 |
| Ethylbenzene | 100-41-4 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1078686 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1078686 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.200 | 1.12 | 0.202 | 1.14 | | 1 | WG1078686 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.200 | 0.989 | 0.303 | 1.50 | | 1 | WG1078686 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.200 | 1.53 | ND | ND | | 1 | WG1078686 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.200 | 1.40 | ND | ND | | 1 | WG1078686 |
| Heptane | 142-82-5 | 100 | 0.200 | 0.818 | ND | ND | | 1 | WG1078686 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 0.630 | 6.73 | ND | ND | | 1 | WG1078686 |
| n-Hexane | 110-54-3 | 86.20 | 0.200 | 0.705 | ND | ND | | 1 | WG1078686 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.200 | 0.983 | ND | ND | | 1 | WG1078686 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.200 | 0.694 | ND | ND | | 1 | WG1078686 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 1.25 | 5.11 | ND | ND | | 1 | WG1078686 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 1.25 | 3.69 | ND | ND | | 1 | WG1078686 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 1.25 | 5.12 | ND | ND | | 1 | WG1078686 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.200 | 0.819 | ND | ND | | 1 | WG1078686 |
| MTBE | 1634-04-4 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1078686 |
| Naphthalene | 91-20-3 | 128 | 0.630 | 3.30 | ND | ND | | 1 | WG1078686 |
| 2-Propanol | 67-63-0 | 60.10 | 1.25 | 3.07 | 8.65 | 21.3 | | 1 | WG1078686 |
| Propene | 115-07-1 | 42.10 | 0.400 | 0.689 | ND | ND | | 1 | WG1078686 |
| Styrene | 100-42-5 | 104 | 0.200 | 0.851 | ND | ND | | 1 | WG1078686 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.200 | 1.37 | ND | ND | | 1 | WG1078686 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.200 | 1.36 | ND | ND | | 1 | WG1078686 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.200 | 0.590 | 4.14 | 12.2 | | 1 | WG1078686 |
| Toluene | 108-88-3 | 92.10 | 0.200 | 0.753 | 0.343 | 1.29 | | 1 | WG1078686 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 0.630 | 4.66 | ND | ND | | 1 | WG1078686 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1078686 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1078686 |
| Trichloroethylene | 79-01-6 | 131 | 0.200 | 1.07 | ND | ND | | 1 | WG1078686 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1078686 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1078686 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.200 | 0.934 | ND | ND | | 1 | WG1078686 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.200 | 0.511 | ND | ND | | 1 | WG1078686 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.200 | 0.875 | ND | ND | | 1 | WG1078686 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.200 | 0.704 | ND | ND | | 1 | WG1078686 |
| m&p-Xylene | 1330-20-7 | 106 | 0.400 | 1.73 | ND | ND | | 1 | WG1078686 |
| o-Xylene | 95-47-6 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1078686 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 50.0 | 207 | ND | ND | | 1 | WG1078686 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *96.2* | | | | WG1078686 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *93.0* | | | | WG1078686 |

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 | 1.92 | 4.55 | | 1 | WG1078686 |
| Allyl chloride | 107-05-1 | 76.53 | 0.200 | 0.626 | ND | ND | | 1 | WG1078686 |
| Benzene | 71-43-2 | 78.10 | 0.200 | 0.639 | ND | ND | | 1 | WG1078686 |
| Benzyl Chloride | 100-44-7 | 127 | 0.200 | 1.04 | ND | ND | | 1 | WG1078686 |
| Bromodichloromethane | 75-27-4 | 164 | 0.200 | 1.34 | ND | ND | | 1 | WG1078686 |
| Bromoform | 75-25-2 | 253 | 0.600 | 6.21 | ND | ND | | 1 | WG1078686 |
| Bromomethane | 74-83-9 | 94.90 | 0.200 | 0.776 | ND | ND | | 1 | WG1078686 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 2.00 | 4.43 | ND | ND | | 1 | WG1078686 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.200 | 0.622 | ND | ND | | 1 | WG1078686 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.200 | 1.26 | ND | ND | | 1 | WG1078686 |
| Chlorobenzene | 108-90-7 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1078686 |
| Chloroethane | 75-00-3 | 64.50 | 0.200 | 0.528 | ND | ND | | 1 | WG1078686 |
| Chloroform | 67-66-3 | 119 | 0.200 | 0.973 | ND | ND | | 1 | WG1078686 |
| Chloromethane | 74-87-3 | 50.50 | 0.200 | 0.413 | 0.382 | 0.790 | | 1 | WG1078686 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.200 | 1.03 | ND | ND | | 1 | WG1078686 |
| Cyclohexane | 110-82-7 | 84.20 | 0.200 | 0.689 | ND | ND | | 1 | WG1078686 |
| Dibromochloromethane | 124-48-1 | 208 | 0.200 | 1.70 | ND | ND | | 1 | WG1078686 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.200 | 1.54 | ND | ND | | 1 | WG1078686 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1078686 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1078686 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1078686 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.200 | 0.810 | ND | ND | | 1 | WG1078686 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.200 | 0.802 | ND | ND | | 1 | WG1078686 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1078686 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1078686 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1078686 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1078686 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1078686 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1078686 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1078686 |
| Ethanol | 64-17-5 | 46.10 | 0.630 | 1.19 | 2.38 | 4.49 | | 1 | WG1078686 |
| Ethylbenzene | 100-41-4 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1078686 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1078686 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.200 | 1.12 | ND | 1.12 | | 1 | WG1078686 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.200 | 0.989 | 0.293 | 1.45 | | 1 | WG1078686 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.200 | 1.53 | ND | ND | | 1 | WG1078686 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.200 | 1.40 | ND | ND | | 1 | WG1078686 |
| Heptane | 142-82-5 | 100 | 0.200 | 0.818 | ND | ND | | 1 | WG1078686 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 0.630 | 6.73 | ND | ND | | 1 | WG1078686 |
| n-Hexane | 110-54-3 | 86.20 | 0.200 | 0.705 | ND | ND | | 1 | WG1078686 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.200 | 0.983 | ND | ND | | 1 | WG1078686 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.200 | 0.694 | ND | ND | | 1 | WG1078686 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 1.25 | 5.11 | ND | ND | | 1 | WG1078686 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 1.25 | 3.69 | ND | ND | | 1 | WG1078686 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 1.25 | 5.12 | ND | ND | | 1 | WG1078686 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.200 | 0.819 | ND | ND | | 1 | WG1078686 |
| MTBE | 1634-04-4 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1078686 |
| Naphthalene | 91-20-3 | 128 | 0.630 | 3.30 | ND | ND | | 1 | WG1078686 |
| 2-Propanol | 67-63-0 | 60.10 | 1.25 | 3.07 | ND | ND | | 1 | WG1078686 |
| Propene | 115-07-1 | 42.10 | 0.400 | 0.689 | ND | ND | | 1 | WG1078686 |
| Styrene | 100-42-5 | 104 | 0.200 | 0.851 | ND | ND | | 1 | WG1078686 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.200 | 1.37 | ND | ND | | 1 | WG1078686 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.200 | 1.36 | ND | ND | | 1 | WG1078686 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.200 | 0.590 | ND | ND | | 1 | WG1078686 |
| Toluene | 108-88-3 | 92.10 | 0.200 | 0.753 | ND | ND | | 1 | WG1078686 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 0.630 | 4.66 | ND | ND | | 1 | WG1078686 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1078686 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1078686 |
| Trichloroethylene | 79-01-6 | 131 | 0.200 | 1.07 | ND | ND | | 1 | WG1078686 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1078686 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1078686 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.200 | 0.934 | ND | ND | | 1 | WG1078686 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.200 | 0.511 | ND | ND | | 1 | WG1078686 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.200 | 0.875 | ND | ND | | 1 | WG1078686 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.200 | 0.704 | ND | ND | | 1 | WG1078686 |
| m&p-Xylene | 1330-20-7 | 106 | 0.400 | 1.73 | ND | ND | | 1 | WG1078686 |
| o-Xylene | 95-47-6 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1078686 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 50.0 | 207 | ND | ND | | 1 | WG1078686 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *96.2* | | | | WG1078686 |

## Volatile Organic Compounds (GC) by Method ASTM 1946

| Analyte | CAS # | Mol. Wt. | RDL % | Result % | Qualifier | Dilution | Batch |
|---|---|---|---|---|---|---|---|
| Helium | 7440-59-7 | | 1.00 | ND | | 1 | WG1079245 |

## 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 | 2.50 | 5.94 | ND | ND | | 2 | WG1079166 |
| Allyl chloride | 107-05-1 | 76.53 | 0.400 | 1.25 | ND | ND | | 2 | WG1079166 |
| Benzene | 71-43-2 | 78.10 | 0.400 | 1.28 | ND | ND | | 2 | WG1079166 |
| Benzyl Chloride | 100-44-7 | 127 | 0.400 | 2.08 | ND | ND | | 2 | WG1079166 |
| Bromodichloromethane | 75-27-4 | 164 | 0.400 | 2.68 | ND | ND | | 2 | WG1079166 |
| Bromoform | 75-25-2 | 253 | 1.20 | 12.4 | ND | ND | | 2 | WG1079166 |
| Bromomethane | 74-83-9 | 94.90 | 0.400 | 1.55 | ND | ND | | 2 | WG1079166 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 4.00 | 8.85 | ND | ND | | 2 | WG1079166 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.400 | 1.24 | ND | ND | | 2 | WG1079166 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.400 | 2.52 | ND | ND | | 2 | WG1079166 |
| Chlorobenzene | 108-90-7 | 113 | 0.400 | 1.85 | ND | ND | | 2 | WG1079166 |
| Chloroethane | 75-00-3 | 64.50 | 0.400 | 1.06 | ND | ND | | 2 | WG1079166 |
| Chloroform | 67-66-3 | 119 | 0.400 | 1.95 | ND | ND | | 2 | WG1079166 |
| Chloromethane | 74-87-3 | 50.50 | 0.400 | 0.826 | ND | ND | | 2 | WG1079166 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.400 | 2.06 | ND | ND | | 2 | WG1079166 |
| Cyclohexane | 110-82-7 | 84.20 | 0.400 | 1.38 | ND | ND | | 2 | WG1079166 |
| Dibromochloromethane | 124-48-1 | 208 | 0.400 | 3.40 | ND | ND | | 2 | WG1079166 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.400 | 3.08 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.400 | 2.40 | ND | ND | | 2 | WG1079166 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.400 | 2.40 | ND | ND | | 2 | WG1079166 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.400 | 2.40 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.400 | 1.62 | ND | ND | | 2 | WG1079166 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.400 | 1.60 | ND | ND | | 2 | WG1079166 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.400 | 1.59 | ND | ND | | 2 | WG1079166 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.400 | 1.59 | ND | ND | | 2 | WG1079166 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.400 | 1.59 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.400 | 1.85 | ND | ND | | 2 | WG1079166 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.400 | 1.82 | ND | ND | | 2 | WG1079166 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.400 | 1.82 | ND | ND | | 2 | WG1079166 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.400 | 1.44 | ND | ND | | 2 | WG1079166 |
| Ethanol | 64-17-5 | 46.10 | 1.26 | 2.38 | 31.9 | 60.2 | | 2 | WG1079166 |
| Ethylbenzene | 100-41-4 | 106 | 0.400 | 1.73 | ND | ND | | 2 | WG1079166 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.400 | 1.96 | ND | ND | | 2 | WG1079166 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.400 | 2.25 | ND | ND | | 2 | WG1079166 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.400 | 1.98 | ND | ND | | 2 | WG1079166 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.400 | 3.07 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.400 | 2.80 | ND | ND | | 2 | WG1079166 |
| Heptane | 142-82-5 | 100 | 0.400 | 1.64 | ND | ND | | 2 | WG1079166 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 1.26 | 13.5 | ND | ND | | 2 | WG1079166 |
| n-Hexane | 110-54-3 | 86.20 | 0.400 | 1.41 | 0.548 | 1.93 | | 2 | WG1079166 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.400 | 1.97 | ND | ND | | 2 | WG1079166 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.400 | 1.39 | 1.48 | 5.14 | | 2 | WG1079166 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 2.50 | 10.2 | ND | ND | | 2 | WG1079166 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 2.50 | 7.37 | ND | ND | | 2 | WG1079166 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 2.50 | 10.2 | ND | ND | | 2 | WG1079166 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.400 | 1.64 | ND | ND | | 2 | WG1079166 |
| MTBE | 1634-04-4 | 88.10 | 0.400 | 1.44 | ND | ND | | 2 | WG1079166 |
| Naphthalene | 91-20-3 | 128 | 1.26 | 6.60 | ND | ND | | 2 | WG1079166 |
| 2-Propanol | 67-63-0 | 60.10 | 2.50 | 6.15 | ND | ND | | 2 | WG1079166 |
| Propene | 115-07-1 | 42.10 | 0.800 | 1.38 | ND | ND | | 2 | WG1079166 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| Styrene | 100-42-5 | 104 | 0.400 | 1.70 | ND | ND | | 2 | WG1079166 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.400 | 2.75 | ND | ND | | 2 | WG1079166 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.400 | 2.72 | ND | ND | | 2 | WG1079166 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.400 | 1.18 | ND | ND | | 2 | WG1079166 |
| Toluene | 108-88-3 | 92.10 | 0.400 | 1.51 | ND | ND | | 2 | WG1079166 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 1.26 | 9.33 | ND | ND | | 2 | WG1079166 |
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.400 | 2.18 | ND | ND | | 2 | WG1079166 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.400 | 2.18 | ND | ND | | 2 | WG1079166 |
| Trichloroethylene | 79-01-6 | 131 | 0.400 | 2.14 | ND | ND | | 2 | WG1079166 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.400 | 1.96 | ND | ND | | 2 | WG1079166 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.400 | 1.96 | ND | ND | | 2 | WG1079166 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.400 | 1.87 | ND | ND | | 2 | WG1079166 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.400 | 1.02 | ND | ND | | 2 | WG1079166 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.400 | 1.75 | ND | ND | | 2 | WG1079166 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.400 | 1.41 | ND | ND | | 2 | WG1079166 |
| m&p-Xylene | 1330-20-7 | 106 | 0.800 | 3.47 | ND | ND | | 2 | WG1079166 |
| o-Xylene | 95-47-6 | 106 | 0.400 | 1.73 | ND | ND | | 2 | WG1079166 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 100 | 413 | ND | ND | | 2 | WG1079166 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *97.0* | | | | WG1079166 |

## Organic Compounds (GC) by Method D1946

| Analyte | CAS # | Mol. Wt. | RDL % | Result % | Qualifier | Dilution | Batch |
|---|---|---|---|---|---|---|---|
| Oxygen | 7782-44-7 | 32 | 2.00 | 17.6 | | 1 | WG1079228 |
| Carbon Dioxide | 124-38-9 | 44.01 | 0.500 | ND | | 1 | WG1079228 |
| Methane | 74-82-8 | 16 | 0.400 | ND | | 1 | WG1079228 |

## Volatile Organic Compounds (GC) by Method ASTM 1946

| Analyte | CAS # | Mol. Wt. | RDL % | Result % | Qualifier | Dilution | Batch |
|---|---|---|---|---|---|---|---|
| Helium | 7440-59-7 | | 1.00 | ND | | 1 | WG1079245 |

## 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 | 2.50 | 5.94 | 14.4 | 34.2 | | 2 | WG1079166 |
| Allyl chloride | 107-05-1 | 76.53 | 0.400 | 1.25 | ND | ND | | 2 | WG1079166 |
| Benzene | 71-43-2 | 78.10 | 0.400 | 1.28 | ND | ND | | 2 | WG1079166 |
| Benzyl Chloride | 100-44-7 | 127 | 0.400 | 2.08 | ND | ND | | 2 | WG1079166 |
| Bromodichloromethane | 75-27-4 | 164 | 0.400 | 2.68 | ND | ND | | 2 | WG1079166 |
| Bromoform | 75-25-2 | 253 | 1.20 | 12.4 | ND | ND | | 2 | WG1079166 |
| Bromomethane | 74-83-9 | 94.90 | 0.400 | 1.55 | ND | ND | | 2 | WG1079166 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 4.00 | 8.85 | ND | ND | | 2 | WG1079166 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.400 | 1.24 | ND | ND | | 2 | WG1079166 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.400 | 2.52 | ND | ND | | 2 | WG1079166 |
| Chlorobenzene | 108-90-7 | 113 | 0.400 | 1.85 | ND | ND | | 2 | WG1079166 |
| Chloroethane | 75-00-3 | 64.50 | 0.400 | 1.06 | ND | ND | | 2 | WG1079166 |
| Chloroform | 67-66-3 | 119 | 0.400 | 1.95 | ND | ND | | 2 | WG1079166 |
| Chloromethane | 74-87-3 | 50.50 | 0.400 | 0.826 | 0.449 | 0.927 | | 2 | WG1079166 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.400 | 2.06 | ND | ND | | 2 | WG1079166 |
| Cyclohexane | 110-82-7 | 84.20 | 0.400 | 1.38 | ND | ND | | 2 | WG1079166 |
| Dibromochloromethane | 124-48-1 | 208 | 0.400 | 3.40 | ND | ND | | 2 | WG1079166 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.400 | 3.08 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.400 | 2.40 | ND | ND | | 2 | WG1079166 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.400 | 2.40 | ND | ND | | 2 | WG1079166 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.400 | 2.40 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.400 | 1.62 | ND | ND | | 2 | WG1079166 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.400 | 1.60 | ND | ND | | 2 | WG1079166 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.400 | 1.59 | ND | ND | | 2 | WG1079166 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.400 | 1.59 | ND | ND | | 2 | WG1079166 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.400 | 1.59 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.400 | 1.85 | ND | ND | | 2 | WG1079166 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.400 | 1.82 | ND | ND | | 2 | WG1079166 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.400 | 1.82 | ND | ND | | 2 | WG1079166 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.400 | 1.44 | ND | ND | | 2 | WG1079166 |
| Ethanol | 64-17-5 | 46.10 | 1.26 | 2.38 | 5.97 | 11.3 | | 2 | WG1079166 |
| Ethylbenzene | 100-41-4 | 106 | 0.400 | 1.73 | 0.651 | 2.82 | | 2 | WG1079166 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.400 | 1.96 | ND | ND | | 2 | WG1079166 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.400 | 2.25 | ND | ND | | 2 | WG1079166 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.400 | 1.98 | ND | ND | | 2 | WG1079166 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.400 | 3.07 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.400 | 2.80 | ND | ND | | 2 | WG1079166 |
| Heptane | 142-82-5 | 100 | 0.400 | 1.64 | ND | ND | | 2 | WG1079166 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 1.26 | 13.5 | ND | ND | | 2 | WG1079166 |
| n-Hexane | 110-54-3 | 86.20 | 0.400 | 1.41 | 1.03 | 3.62 | | 2 | WG1079166 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.400 | 1.97 | ND | ND | | 2 | WG1079166 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.400 | 1.39 | 2.07 | 7.18 | | 2 | WG1079166 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 2.50 | 10.2 | ND | ND | | 2 | WG1079166 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 2.50 | 7.37 | ND | ND | | 2 | WG1079166 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 2.50 | 10.2 | ND | ND | | 2 | WG1079166 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.400 | 1.64 | ND | ND | | 2 | WG1079166 |
| MTBE | 1634-04-4 | 88.10 | 0.400 | 1.44 | ND | ND | | 2 | WG1079166 |
| Naphthalene | 91-20-3 | 128 | 1.26 | 6.60 | ND | ND | | 2 | WG1079166 |
| 2-Propanol | 67-63-0 | 60.10 | 2.50 | 6.15 | ND | ND | | 2 | WG1079166 |
| Propene | 115-07-1 | 42.10 | 0.800 | 1.38 | ND | ND | | 2 | WG1079166 |

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 |
|---|---|---|---|---|---|---|---|---|---|
| Styrene | 100-42-5 | 104 | 0.400 | 1.70 | ND | ND | | 2 | WG1079166 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.400 | 2.75 | ND | ND | | 2 | WG1079166 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.400 | 2.72 | ND | ND | | 2 | WG1079166 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.400 | 1.18 | ND | ND | | 2 | WG1079166 |
| Toluene | 108-88-3 | 92.10 | 0.400 | 1.51 | 0.428 | 1.61 | | 2 | WG1079166 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 1.26 | 9.33 | ND | ND | | 2 | WG1079166 |
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.400 | 2.18 | ND | ND | | 2 | WG1079166 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.400 | 2.18 | ND | ND | | 2 | WG1079166 |
| Trichloroethylene | 79-01-6 | 131 | 0.400 | 2.14 | ND | ND | | 2 | WG1079166 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.400 | 1.96 | 0.438 | 2.15 | | 2 | WG1079166 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.400 | 1.96 | ND | ND | | 2 | WG1079166 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.400 | 1.87 | 0.475 | 2.22 | | 2 | WG1079166 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.400 | 1.02 | ND | ND | | 2 | WG1079166 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.400 | 1.75 | ND | ND | | 2 | WG1079166 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.400 | 1.41 | ND | ND | | 2 | WG1079166 |
| m&p-Xylene | 1330-20-7 | 106 | 0.800 | 3.47 | 1.86 | 8.08 | | 2 | WG1079166 |
| o-Xylene | 95-47-6 | 106 | 0.400 | 1.73 | 0.482 | 2.09 | | 2 | WG1079166 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 100 | 413 | ND | ND | | 2 | WG1079166 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *96.2* | | | | WG1079166 |

## Organic Compounds (GC) by Method D1946

| Analyte | CAS # | Mol. Wt. | RDL % | Result % | Qualifier | Dilution | Batch |
|---|---|---|---|---|---|---|---|
| Oxygen | 7782-44-7 | 32 | 2.00 | 17.5 | | 1 | WG1079228 |
| Carbon Dioxide | 124-38-9 | 44.01 | 0.500 | ND | | 1 | WG1079228 |
| Methane | 74-82-8 | 16 | 0.400 | ND | | 1 | WG1079228 |

## Volatile Organic Compounds (GC) by Method ASTM 1946

| Analyte | CAS # | Mol. Wt. | RDL % | Result % | Qualifier | Dilution | Batch |
|---|---|---|---|---|---|---|---|
| Helium | 7440-59-7 | | 1.00 | ND | | 1 | WG1079245 |

## 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 | 2.50 | 5.94 | 32.7 | 77.7 | | 2 | WG1079166 |
| Allyl chloride | 107-05-1 | 76.53 | 0.400 | 1.25 | ND | ND | | 2 | WG1079166 |
| Benzene | 71-43-2 | 78.10 | 0.400 | 1.28 | 0.532 | 1.70 | | 2 | WG1079166 |
| Benzyl Chloride | 100-44-7 | 127 | 0.400 | 2.08 | ND | ND | | 2 | WG1079166 |
| Bromodichloromethane | 75-27-4 | 164 | 0.400 | 2.68 | ND | ND | | 2 | WG1079166 |
| Bromoform | 75-25-2 | 253 | 1.20 | 12.4 | ND | ND | | 2 | WG1079166 |
| Bromomethane | 74-83-9 | 94.90 | 0.400 | 1.55 | ND | ND | | 2 | WG1079166 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 4.00 | 8.85 | ND | ND | | 2 | WG1079166 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.400 | 1.24 | ND | ND | | 2 | WG1079166 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.400 | 2.52 | ND | ND | | 2 | WG1079166 |
| Chlorobenzene | 108-90-7 | 113 | 0.400 | 1.85 | ND | ND | | 2 | WG1079166 |
| Chloroethane | 75-00-3 | 64.50 | 0.400 | 1.06 | ND | ND | | 2 | WG1079166 |
| Chloroform | 67-66-3 | 119 | 0.400 | 1.95 | ND | ND | | 2 | WG1079166 |
| Chloromethane | 74-87-3 | 50.50 | 0.400 | 0.826 | 2.84 | 5.86 | | 2 | WG1079166 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.400 | 2.06 | ND | ND | | 2 | WG1079166 |
| Cyclohexane | 110-82-7 | 84.20 | 0.400 | 1.38 | ND | ND | | 2 | WG1079166 |
| Dibromochloromethane | 124-48-1 | 208 | 0.400 | 3.40 | ND | ND | | 2 | WG1079166 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.400 | 3.08 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.400 | 2.40 | ND | ND | | 2 | WG1079166 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.400 | 2.40 | ND | ND | | 2 | WG1079166 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.400 | 2.40 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.400 | 1.62 | ND | ND | | 2 | WG1079166 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.400 | 1.60 | ND | ND | | 2 | WG1079166 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.400 | 1.59 | ND | ND | | 2 | WG1079166 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.400 | 1.59 | ND | ND | | 2 | WG1079166 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.400 | 1.59 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.400 | 1.85 | ND | ND | | 2 | WG1079166 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.400 | 1.82 | ND | ND | | 2 | WG1079166 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.400 | 1.82 | ND | ND | | 2 | WG1079166 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.400 | 1.44 | 0.660 | 2.38 | | 2 | WG1079166 |
| Ethanol | 64-17-5 | 46.10 | 1.26 | 2.38 | 7.09 | 13.4 | | 2 | WG1079166 |
| Ethylbenzene | 100-41-4 | 106 | 0.400 | 1.73 | 0.675 | 2.93 | | 2 | WG1079166 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.400 | 1.96 | ND | ND | | 2 | WG1079166 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.400 | 2.25 | ND | ND | | 2 | WG1079166 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.400 | 1.98 | ND | ND | | 2 | WG1079166 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.400 | 3.07 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.400 | 2.80 | ND | ND | | 2 | WG1079166 |
| Heptane | 142-82-5 | 100 | 0.400 | 1.64 | ND | ND | | 2 | WG1079166 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 1.26 | 13.5 | ND | ND | | 2 | WG1079166 |
| n-Hexane | 110-54-3 | 86.20 | 0.400 | 1.41 | ND | ND | | 2 | WG1079166 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.400 | 1.97 | ND | ND | | 2 | WG1079166 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.400 | 1.39 | 1.10 | 3.82 | | 2 | WG1079166 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 2.50 | 10.2 | ND | ND | | 2 | WG1079166 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 2.50 | 7.37 | 3.44 | 10.2 | | 2 | WG1079166 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 2.50 | 10.2 | ND | ND | | 2 | WG1079166 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.400 | 1.64 | ND | ND | | 2 | WG1079166 |
| MTBE | 1634-04-4 | 88.10 | 0.400 | 1.44 | ND | ND | | 2 | WG1079166 |
| Naphthalene | 91-20-3 | 128 | 1.26 | 6.60 | ND | ND | | 2 | WG1079166 |
| 2-Propanol | 67-63-0 | 60.10 | 2.50 | 6.15 | ND | ND | | 2 | WG1079166 |
| Propene | 115-07-1 | 42.10 | 0.800 | 1.38 | 0.902 | 1.55 | | 2 | WG1079166 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| Styrene | 100-42-5 | 104 | 0.400 | 1.70 | ND | ND | | 2 | WG1079166 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.400 | 2.75 | ND | ND | | 2 | WG1079166 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.400 | 2.72 | ND | ND | | 2 | WG1079166 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.400 | 1.18 | 22.3 | 65.9 | | 2 | WG1079166 |
| Toluene | 108-88-3 | 92.10 | 0.400 | 1.51 | 0.540 | 2.03 | | 2 | WG1079166 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 1.26 | 9.33 | ND | ND | | 2 | WG1079166 |
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.400 | 2.18 | ND | ND | | 2 | WG1079166 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.400 | 2.18 | ND | ND | | 2 | WG1079166 |
| Trichloroethylene | 79-01-6 | 131 | 0.400 | 2.14 | ND | ND | | 2 | WG1079166 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.400 | 1.96 | 0.448 | 2.20 | | 2 | WG1079166 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.400 | 1.96 | ND | ND | | 2 | WG1079166 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.400 | 1.87 | ND | ND | | 2 | WG1079166 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.400 | 1.02 | ND | ND | | 2 | WG1079166 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.400 | 1.75 | ND | ND | | 2 | WG1079166 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.400 | 1.41 | ND | ND | | 2 | WG1079166 |
| m&p-Xylene | 1330-20-7 | 106 | 0.800 | 3.47 | 1.67 | 7.25 | | 2 | WG1079166 |
| o-Xylene | 95-47-6 | 106 | 0.400 | 1.73 | ND | ND | | 2 | WG1079166 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 100 | 413 | ND | ND | | 2 | WG1079166 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *96.0* | | | | WG1079166 |

## Organic Compounds (GC) by Method D1946

| Analyte | CAS # | Mol. Wt. | RDL % | Result % | Qualifier | Dilution | Batch |
|---|---|---|---|---|---|---|---|
| Oxygen | 7782-44-7 | 32 | 2.00 | 17.5 | | 1 | WG1079228 |
| Carbon Dioxide | 124-38-9 | 44.01 | 0.500 | ND | | 1 | WG1079228 |
| Methane | 74-82-8 | 16 | 0.400 | ND | | 1 | WG1079228 |

## Volatile Organic Compounds (GC) by Method ASTM 1946

| Analyte | CAS # | Mol. Wt. | RDL % | Result % | Qualifier | Dilution | Batch |
|---|---|---|---|---|---|---|---|
| Helium | 7440-59-7 | | 1.00 | ND | | 1 | WG1079245 |

## 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 | 2.50 | 5.94 | 13.1 | 31.1 | | 2 | WG1079166 |
| Allyl chloride | 107-05-1 | 76.53 | 0.400 | 1.25 | ND | ND | | 2 | WG1079166 |
| Benzene | 71-43-2 | 78.10 | 0.400 | 1.28 | ND | ND | | 2 | WG1079166 |
| Benzyl Chloride | 100-44-7 | 127 | 0.400 | 2.08 | ND | ND | | 2 | WG1079166 |
| Bromodichloromethane | 75-27-4 | 164 | 0.400 | 2.68 | ND | ND | | 2 | WG1079166 |
| Bromoform | 75-25-2 | 253 | 1.20 | 12.4 | ND | ND | | 2 | WG1079166 |
| Bromomethane | 74-83-9 | 94.90 | 0.400 | 1.55 | ND | ND | | 2 | WG1079166 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 4.00 | 8.85 | ND | ND | | 2 | WG1079166 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.400 | 1.24 | ND | ND | | 2 | WG1079166 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.400 | 2.52 | ND | ND | | 2 | WG1079166 |
| Chlorobenzene | 108-90-7 | 113 | 0.400 | 1.85 | ND | ND | | 2 | WG1079166 |
| Chloroethane | 75-00-3 | 64.50 | 0.400 | 1.06 | ND | ND | | 2 | WG1079166 |
| Chloroform | 67-66-3 | 119 | 0.400 | 1.95 | ND | ND | | 2 | WG1079166 |
| Chloromethane | 74-87-3 | 50.50 | 0.400 | 0.826 | ND | ND | | 2 | WG1079166 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.400 | 2.06 | ND | ND | | 2 | WG1079166 |
| Cyclohexane | 110-82-7 | 84.20 | 0.400 | 1.38 | ND | ND | | 2 | WG1079166 |
| Dibromochloromethane | 124-48-1 | 208 | 0.400 | 3.40 | ND | ND | | 2 | WG1079166 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.400 | 3.08 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.400 | 2.40 | ND | ND | | 2 | WG1079166 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.400 | 2.40 | ND | ND | | 2 | WG1079166 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.400 | 2.40 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.400 | 1.62 | ND | ND | | 2 | WG1079166 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.400 | 1.60 | ND | ND | | 2 | WG1079166 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.400 | 1.59 | ND | ND | | 2 | WG1079166 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.400 | 1.59 | ND | ND | | 2 | WG1079166 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.400 | 1.59 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.400 | 1.85 | ND | ND | | 2 | WG1079166 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.400 | 1.82 | ND | ND | | 2 | WG1079166 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.400 | 1.82 | ND | ND | | 2 | WG1079166 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.400 | 1.44 | 1.72 | 6.20 | | 2 | WG1079166 |
| Ethanol | 64-17-5 | 46.10 | 1.26 | 2.38 | 6.42 | 12.1 | | 2 | WG1079166 |
| Ethylbenzene | 100-41-4 | 106 | 0.400 | 1.73 | ND | ND | | 2 | WG1079166 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.400 | 1.96 | ND | ND | | 2 | WG1079166 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.400 | 2.25 | ND | ND | | 2 | WG1079166 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.400 | 1.98 | ND | ND | | 2 | WG1079166 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.400 | 3.07 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.400 | 2.80 | ND | ND | | 2 | WG1079166 |
| Heptane | 142-82-5 | 100 | 0.400 | 1.64 | ND | ND | | 2 | WG1079166 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 1.26 | 13.5 | ND | ND | | 2 | WG1079166 |
| n-Hexane | 110-54-3 | 86.20 | 0.400 | 1.41 | 0.402 | 1.42 | | 2 | WG1079166 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.400 | 1.97 | ND | ND | | 2 | WG1079166 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.400 | 1.39 | 1.14 | 3.96 | | 2 | WG1079166 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 2.50 | 10.2 | ND | ND | | 2 | WG1079166 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 2.50 | 7.37 | ND | ND | | 2 | WG1079166 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 2.50 | 10.2 | ND | ND | | 2 | WG1079166 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.400 | 1.64 | ND | ND | | 2 | WG1079166 |
| MTBE | 1634-04-4 | 88.10 | 0.400 | 1.44 | ND | ND | | 2 | WG1079166 |
| Naphthalene | 91-20-3 | 128 | 1.26 | 6.60 | ND | ND | | 2 | WG1079166 |
| 2-Propanol | 67-63-0 | 60.10 | 2.50 | 6.15 | ND | ND | | 2 | WG1079166 |
| Propene | 115-07-1 | 42.10 | 0.800 | 1.38 | ND | ND | | 2 | WG1079166 |

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 |
|---|---|---|---|---|---|---|---|---|---|
| Styrene | 100-42-5 | 104 | 0.400 | 1.70 | ND | ND | | 2 | WG1079166 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.400 | 2.75 | ND | ND | | 2 | WG1079166 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.400 | 2.72 | ND | ND | | 2 | WG1079166 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.400 | 1.18 | 1.16 | 3.42 | | 2 | WG1079166 |
| Toluene | 108-88-3 | 92.10 | 0.400 | 1.51 | ND | ND | | 2 | WG1079166 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 1.26 | 9.33 | ND | ND | | 2 | WG1079166 |
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.400 | 2.18 | ND | ND | | 2 | WG1079166 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.400 | 2.18 | ND | ND | | 2 | WG1079166 |
| Trichloroethylene | 79-01-6 | 131 | 0.400 | 2.14 | ND | ND | | 2 | WG1079166 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.400 | 1.96 | ND | ND | | 2 | WG1079166 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.400 | 1.96 | ND | ND | | 2 | WG1079166 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.400 | 1.87 | ND | ND | | 2 | WG1079166 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.400 | 1.02 | ND | ND | | 2 | WG1079166 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.400 | 1.75 | ND | ND | | 2 | WG1079166 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.400 | 1.41 | ND | ND | | 2 | WG1079166 |
| m&p-Xylene | 1330-20-7 | 106 | 0.800 | 3.47 | ND | ND | | 2 | WG1079166 |
| o-Xylene | 95-47-6 | 106 | 0.400 | 1.73 | ND | ND | | 2 | WG1079166 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 100 | 413 | ND | ND | | 2 | WG1079166 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *96.5* | | | | WG1079166 |

## Organic Compounds (GC) by Method D1946

| Analyte | CAS # | Mol. Wt. | RDL % | Result % | Qualifier | Dilution | Batch |
|---|---|---|---|---|---|---|---|
| Oxygen | 7782-44-7 | 32 | 2.00 | 17.0 | | 1 | WG1079228 |
| Carbon Dioxide | 124-38-9 | 44.01 | 0.500 | 0.556 | | 1 | WG1079228 |
| Methane | 74-82-8 | 16 | 0.400 | ND | | 1 | WG1079228 |

# ANALYTICAL REPORT

March 02, 2018

## ARCADIS US - Concord, CA

| | |
|---|---|
| Sample Delivery Group: | L972975 |
| Samples Received: | 02/26/2018 |
| Project Number: | B0090121.2018.00002 |
| Description: | |
| Site: | CHEVRON 90121 |
| Report To: | Kathy Szymanowski<br>2300 Clayton Road<br>Suite 400<br>Concord, CA 94520 |

Entire Report Reviewed By:

Brian Ford

Technical Service Representative



## 3014-IA-SSVP-3 L972975-01 Air

Collected by: E. Robin | Collected date/time: 02/22/18 16:45 | Received date/time: 02/26/18 09:10

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (MS) by Method TO-15 | WG1077830 | 1 | 02/26/18 11:38 | 02/26/18 11:38 | AMC |

## 3014-IA-SSVP-1 L972975-02 Air

Collected by: E. Robin | Collected date/time: 02/22/18 17:10 | Received date/time: 02/26/18 09:10

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (MS) by Method TO-15 | WG1077830 | 1 | 02/26/18 12:28 | 02/26/18 12:28 | AMC |

## 3014-IA-EAST L972975-03 Air

Collected by: E. Robin | Collected date/time: 02/22/18 17:09 | Received date/time: 02/26/18 09:10

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (MS) by Method TO-15 | WG1077830 | 1 | 02/26/18 13:14 | 02/26/18 13:14 | AMC |

## 3014-IA-SE L972975-04 Air

Collected by: E. Robin | Collected date/time: 02/22/18 17:16 | Received date/time: 02/26/18 09:10

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (MS) by Method TO-15 | WG1077830 | 1 | 02/26/18 14:01 | 02/26/18 14:01 | AMC |

## 3014-IA-SP L972975-05 Air

Collected by: E. Robin | Collected date/time: 02/22/18 16:52 | Received date/time: 02/26/18 09:10

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (MS) by Method TO-15 | WG1077831 | 1 | 02/26/18 12:08 | 02/26/18 12:08 | AMC |

## 3008-IA-SE L972975-06 Air

Collected by: E. Robin | Collected date/time: 02/22/18 17:03 | Received date/time: 02/26/18 09:10

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (MS) by Method TO-15 | WG1077831 | 1 | 02/26/18 12:50 | 02/26/18 12:50 | AMC |
| Volatile Organic Compounds (MS) by Method TO-15 | WG1078157 | 40 | 02/27/18 11:09 | 02/27/18 11:09 | AMC |

## 3008-IA-RR L972975-07 Air

Collected by: E. Robin | Collected date/time: 02/22/18 17:01 | Received date/time: 02/26/18 09:10

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (MS) by Method TO-15 | WG1077831 | 1 | 02/26/18 13:37 | 02/26/18 13:37 | AMC |
| Volatile Organic Compounds (MS) by Method TO-15 | WG1077831 | 40 | 02/26/18 16:23 | 02/26/18 16:23 | AMC |

## IA-DUP-1 L972975-08 Air

Collected by: E. Robin | Collected date/time: 02/22/18 00:00 | Received date/time: 02/26/18 09:10

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (MS) by Method TO-15 | WG1077831 | 1 | 02/26/18 14:20 | 02/26/18 14:20 | AMC |
| Volatile Organic Compounds (MS) by Method TO-15 | WG1077831 | 40 | 02/26/18 17:00 | 02/26/18 17:00 | AMC |

## OA-3 L972975-09 Air

Collected by: E. Robin | Collected date/time: 02/22/18 17:05 | Received date/time: 02/26/18 09:10

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (MS) by Method TO-15 | WG1077831 | 1 | 02/26/18 15:07 | 02/26/18 15:07 | AMC |

## 3014-IA-MR L972975-10 Air

Collected by: E. Robin | Collected date/time: 02/22/18 16:50 | Received date/time: 02/26/18 09:10

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (MS) by Method TO-15 | WG1078686 | 1 | 02/28/18 11:24 | 02/28/18 11:24 | AMC |

## 3008-IA-NE L972975-11 Air

Collected by: E. Robin | Collected date/time: 02/22/18 17:00 | Received date/time: 02/26/18 09:10

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (MS) by Method TO-15 | WG1078686 | 1 | 02/28/18 12:11 | 02/28/18 12:11 | AMC |
| Volatile Organic Compounds (MS) by Method TO-15 | WG1078686 | 40 | 02/28/18 14:29 | 02/28/18 14:29 | AMC |

## OA-4 L972975-12 Air

Collected by: E. Robin | Collected date/time: 02/22/18 17:04 | Received date/time: 02/26/18 09:10

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (MS) by Method TO-15 | WG1078686 | 1 | 02/28/18 12:58 | 02/28/18 12:58 | AMC |

## SSVP-1 L972975-13 Air

Collected by: E. Robin | Collected date/time: 02/22/18 12:02 | Received date/time: 03/01/18 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC) by Method ASTM 1946 | WG1079245 | 1 | 03/01/18 14:17 | 03/01/18 14:17 | BG |
| Volatile Organic Compounds (MS) by Method TO-15 | WG1079166 | 2 | 03/01/18 20:10 | 03/01/18 20:10 | AMC |
| Organic Compounds (GC) by Method D1946 | WG1079228 | 1 | 03/01/18 12:20 | 03/01/18 12:20 | BG |

## SSVP-3 L972975-14 Air

Collected by: E. Robin | Collected date/time: 02/22/18 17:17 | Received date/time: 03/01/18 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC) by Method ASTM 1946 | WG1079245 | 1 | 03/01/18 14:22 | 03/01/18 14:22 | BG |
| Volatile Organic Compounds (MS) by Method TO-15 | WG1079166 | 2 | 03/01/18 20:56 | 03/01/18 20:56 | AMC |
| Organic Compounds (GC) by Method D1946 | WG1079228 | 1 | 03/01/18 13:11 | 03/01/18 13:11 | BG |

## SSVP-2 L972975-15 Air

Collected by: E. Robin | Collected date/time: 02/22/18 16:56 | Received date/time: 03/01/18 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC) by Method ASTM 1946 | WG1079245 | 1 | 03/01/18 14:27 | 03/01/18 14:27 | BG |
| Volatile Organic Compounds (MS) by Method TO-15 | WG1079166 | 2 | 03/01/18 21:41 | 03/01/18 21:41 | AMC |
| Organic Compounds (GC) by Method D1946 | WG1079228 | 1 | 03/01/18 13:17 | 03/01/18 13:17 | BG |

## SV-DUP-1 L972975-16 Air

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| E. Robin | 02/22/18 00:00 | 03/01/18 08:45 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst |
|---|---|---|---|---|---|
| Volatile Organic Compounds (GC) by Method ASTM 1946 | WG1079245 | 1 | 03/01/18 14:30 | 03/01/18 14:30 | BG |
| Volatile Organic Compounds (MS) by Method TO-15 | WG1079166 | 2 | 03/01/18 22:27 | 03/01/18 22:27 | AMC |
| Organic Compounds (GC) by Method D1946 | WG1079228 | 1 | 03/01/18 13:23 | 03/01/18 13:23 | BG |

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 radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. 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
Technical Service Representative

## 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 | 5.64 | 13.4 | | 1 | WG1077830 |
| Allyl chloride | 107-05-1 | 76.53 | 0.200 | 0.626 | ND | ND | | 1 | WG1077830 |
| Benzene | 71-43-2 | 78.10 | 0.200 | 0.639 | ND | ND | | 1 | WG1077830 |
| Benzyl Chloride | 100-44-7 | 127 | 0.200 | 1.04 | ND | ND | | 1 | WG1077830 |
| Bromodichloromethane | 75-27-4 | 164 | 0.200 | 1.34 | ND | ND | | 1 | WG1077830 |
| Bromoform | 75-25-2 | 253 | 0.600 | 6.21 | ND | ND | | 1 | WG1077830 |
| Bromomethane | 74-83-9 | 94.90 | 0.200 | 0.776 | ND | ND | | 1 | WG1077830 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 2.00 | 4.43 | ND | ND | | 1 | WG1077830 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.200 | 0.622 | ND | ND | | 1 | WG1077830 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.200 | 1.26 | ND | ND | | 1 | WG1077830 |
| Chlorobenzene | 108-90-7 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077830 |
| Chloroethane | 75-00-3 | 64.50 | 0.200 | 0.528 | ND | ND | | 1 | WG1077830 |
| Chloroform | 67-66-3 | 119 | 0.200 | 0.973 | ND | ND | | 1 | WG1077830 |
| Chloromethane | 74-87-3 | 50.50 | 0.200 | 0.413 | 0.366 | 0.756 | | 1 | WG1077830 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.200 | 1.03 | ND | ND | | 1 | WG1077830 |
| Cyclohexane | 110-82-7 | 84.20 | 0.200 | 0.689 | ND | ND | | 1 | WG1077830 |
| Dibromochloromethane | 124-48-1 | 208 | 0.200 | 1.70 | ND | ND | | 1 | WG1077830 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.200 | 1.54 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077830 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077830 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.200 | 0.810 | ND | ND | | 1 | WG1077830 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.200 | 0.802 | ND | ND | | 1 | WG1077830 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077830 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077830 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077830 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077830 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077830 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077830 |
| Ethanol | 64-17-5 | 46.10 | 0.630 | 1.19 | 3.43 | 6.46 | | 1 | WG1077830 |
| Ethylbenzene | 100-41-4 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077830 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077830 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.200 | 1.12 | ND | ND | | 1 | WG1077830 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.200 | 0.989 | 0.288 | 1.42 | | 1 | WG1077830 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.200 | 1.53 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.200 | 1.40 | ND | ND | | 1 | WG1077830 |
| Heptane | 142-82-5 | 100 | 0.200 | 0.818 | ND | ND | | 1 | WG1077830 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 0.630 | 6.73 | ND | ND | | 1 | WG1077830 |
| n-Hexane | 110-54-3 | 86.20 | 0.200 | 0.705 | ND | ND | | 1 | WG1077830 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.200 | 0.983 | ND | ND | | 1 | WG1077830 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.200 | 0.694 | ND | ND | | 1 | WG1077830 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 1.25 | 5.11 | ND | ND | | 1 | WG1077830 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 1.25 | 3.69 | ND | ND | | 1 | WG1077830 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 1.25 | 5.12 | ND | ND | | 1 | WG1077830 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.200 | 0.819 | ND | ND | | 1 | WG1077830 |
| MTBE | 1634-04-4 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077830 |
| Naphthalene | 91-20-3 | 128 | 0.630 | 3.30 | ND | ND | | 1 | WG1077830 |
| 2-Propanol | 67-63-0 | 60.10 | 1.25 | 3.07 | ND | ND | | 1 | WG1077830 |
| Propene | 115-07-1 | 42.10 | 0.400 | 0.689 | ND | ND | | 1 | WG1077830 |
| Styrene | 100-42-5 | 104 | 0.200 | 0.851 | ND | ND | | 1 | WG1077830 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.200 | 1.37 | ND | ND | | 1 | WG1077830 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.200 | 1.36 | ND | ND | | 1 | WG1077830 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.200 | 0.590 | ND | ND | | 1 | WG1077830 |
| Toluene | 108-88-3 | 92.10 | 0.200 | 0.753 | 0.219 | 0.826 | | 1 | WG1077830 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 0.630 | 4.66 | ND | ND | | 1 | WG1077830 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077830 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077830 |
| Trichloroethylene | 79-01-6 | 131 | 0.200 | 1.07 | ND | ND | | 1 | WG1077830 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077830 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077830 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.200 | 0.934 | ND | ND | | 1 | WG1077830 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.200 | 0.511 | ND | ND | | 1 | WG1077830 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.200 | 0.875 | ND | ND | | 1 | WG1077830 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.200 | 0.704 | ND | ND | | 1 | WG1077830 |
| m&p-Xylene | 1330-20-7 | 106 | 0.400 | 1.73 | ND | ND | | 1 | WG1077830 |
| o-Xylene | 95-47-6 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077830 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 50.0 | 207 | ND | ND | | 1 | WG1077830 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *97.2* | | | | WG1077830 |

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 | 6.61 | 15.7 | | 1 | WG1077830 |
| Allyl chloride | 107-05-1 | 76.53 | 0.200 | 0.626 | ND | ND | | 1 | WG1077830 |
| Benzene | 71-43-2 | 78.10 | 0.200 | 0.639 | ND | ND | | 1 | WG1077830 |
| Benzyl Chloride | 100-44-7 | 127 | 0.200 | 1.04 | ND | ND | | 1 | WG1077830 |
| Bromodichloromethane | 75-27-4 | 164 | 0.200 | 1.34 | ND | ND | | 1 | WG1077830 |
| Bromoform | 75-25-2 | 253 | 0.600 | 6.21 | ND | ND | | 1 | WG1077830 |
| Bromomethane | 74-83-9 | 94.90 | 0.200 | 0.776 | ND | ND | | 1 | WG1077830 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 2.00 | 4.43 | ND | ND | | 1 | WG1077830 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.200 | 0.622 | ND | ND | | 1 | WG1077830 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.200 | 1.26 | ND | ND | | 1 | WG1077830 |
| Chlorobenzene | 108-90-7 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077830 |
| Chloroethane | 75-00-3 | 64.50 | 0.200 | 0.528 | ND | ND | | 1 | WG1077830 |
| Chloroform | 67-66-3 | 119 | 0.200 | 0.973 | ND | ND | | 1 | WG1077830 |
| Chloromethane | 74-87-3 | 50.50 | 0.200 | 0.413 | 0.430 | 0.888 | | 1 | WG1077830 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.200 | 1.03 | ND | ND | | 1 | WG1077830 |
| Cyclohexane | 110-82-7 | 84.20 | 0.200 | 0.689 | ND | ND | | 1 | WG1077830 |
| Dibromochloromethane | 124-48-1 | 208 | 0.200 | 1.70 | ND | ND | | 1 | WG1077830 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.200 | 1.54 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077830 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077830 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.200 | 0.810 | ND | ND | | 1 | WG1077830 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.200 | 0.802 | ND | ND | | 1 | WG1077830 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077830 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077830 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077830 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077830 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077830 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077830 |
| Ethanol | 64-17-5 | 46.10 | 0.630 | 1.19 | 6.29 | 11.9 | | 1 | WG1077830 |
| Ethylbenzene | 100-41-4 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077830 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077830 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.200 | 1.12 | ND | ND | | 1 | WG1077830 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.200 | 0.989 | 0.308 | 1.52 | | 1 | WG1077830 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.200 | 1.53 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.200 | 1.40 | ND | ND | | 1 | WG1077830 |
| Heptane | 142-82-5 | 100 | 0.200 | 0.818 | ND | ND | | 1 | WG1077830 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 0.630 | 6.73 | ND | ND | | 1 | WG1077830 |
| n-Hexane | 110-54-3 | 86.20 | 0.200 | 0.705 | 0.266 | 0.938 | | 1 | WG1077830 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.200 | 0.983 | ND | ND | | 1 | WG1077830 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.200 | 0.694 | 0.443 | 1.54 | | 1 | WG1077830 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 1.25 | 5.11 | ND | ND | | 1 | WG1077830 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 1.25 | 3.69 | ND | ND | | 1 | WG1077830 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 1.25 | 5.12 | ND | ND | | 1 | WG1077830 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.200 | 0.819 | ND | ND | | 1 | WG1077830 |
| MTBE | 1634-04-4 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077830 |
| Naphthalene | 91-20-3 | 128 | 0.630 | 3.30 | ND | ND | | 1 | WG1077830 |
| 2-Propanol | 67-63-0 | 60.10 | 1.25 | 3.07 | 2.58 | 6.35 | | 1 | WG1077830 |
| Propene | 115-07-1 | 42.10 | 0.400 | 0.689 | ND | ND | | 1 | WG1077830 |
| Styrene | 100-42-5 | 104 | 0.200 | 0.851 | ND | ND | | 1 | WG1077830 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.200 | 1.37 | ND | ND | | 1 | WG1077830 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.200 | 1.36 | ND | ND | | 1 | WG1077830 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.200 | 0.590 | ND | ND | | 1 | WG1077830 |
| Toluene | 108-88-3 | 92.10 | 0.200 | 0.753 | ND | ND | | 1 | WG1077830 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 0.630 | 4.66 | ND | ND | | 1 | WG1077830 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077830 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077830 |
| Trichloroethylene | 79-01-6 | 131 | 0.200 | 1.07 | ND | ND | | 1 | WG1077830 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077830 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077830 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.200 | 0.934 | ND | ND | | 1 | WG1077830 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.200 | 0.511 | ND | ND | | 1 | WG1077830 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.200 | 0.875 | ND | ND | | 1 | WG1077830 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.200 | 0.704 | ND | ND | | 1 | WG1077830 |
| m&p-Xylene | 1330-20-7 | 106 | 0.400 | 1.73 | ND | ND | | 1 | WG1077830 |
| o-Xylene | 95-47-6 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077830 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 50.0 | 207 | ND | ND | | 1 | WG1077830 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *96.6* | | | | WG1077830 |

## 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 | 5.75 | 13.7 | | 1 | WG1077830 |
| Allyl chloride | 107-05-1 | 76.53 | 0.200 | 0.626 | ND | ND | | 1 | WG1077830 |
| Benzene | 71-43-2 | 78.10 | 0.200 | 0.639 | ND | ND | | 1 | WG1077830 |
| Benzyl Chloride | 100-44-7 | 127 | 0.200 | 1.04 | ND | ND | | 1 | WG1077830 |
| Bromodichloromethane | 75-27-4 | 164 | 0.200 | 1.34 | ND | ND | | 1 | WG1077830 |
| Bromoform | 75-25-2 | 253 | 0.600 | 6.21 | ND | ND | | 1 | WG1077830 |
| Bromomethane | 74-83-9 | 94.90 | 0.200 | 0.776 | ND | ND | | 1 | WG1077830 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 2.00 | 4.43 | ND | ND | | 1 | WG1077830 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.200 | 0.622 | ND | ND | | 1 | WG1077830 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.200 | 1.26 | ND | ND | | 1 | WG1077830 |
| Chlorobenzene | 108-90-7 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077830 |
| Chloroethane | 75-00-3 | 64.50 | 0.200 | 0.528 | ND | ND | | 1 | WG1077830 |
| Chloroform | 67-66-3 | 119 | 0.200 | 0.973 | ND | ND | | 1 | WG1077830 |
| Chloromethane | 74-87-3 | 50.50 | 0.200 | 0.413 | 0.431 | 0.890 | | 1 | WG1077830 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.200 | 1.03 | ND | ND | | 1 | WG1077830 |
| Cyclohexane | 110-82-7 | 84.20 | 0.200 | 0.689 | ND | ND | | 1 | WG1077830 |
| Dibromochloromethane | 124-48-1 | 208 | 0.200 | 1.70 | ND | ND | | 1 | WG1077830 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.200 | 1.54 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077830 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077830 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.200 | 0.810 | ND | ND | | 1 | WG1077830 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.200 | 0.802 | ND | ND | | 1 | WG1077830 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077830 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077830 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077830 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077830 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077830 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077830 |
| Ethanol | 64-17-5 | 46.10 | 0.630 | 1.19 | 6.19 | 11.7 | | 1 | WG1077830 |
| Ethylbenzene | 100-41-4 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077830 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077830 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.200 | 1.12 | ND | ND | | 1 | WG1077830 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.200 | 0.989 | 0.298 | 1.47 | | 1 | WG1077830 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.200 | 1.53 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.200 | 1.40 | ND | ND | | 1 | WG1077830 |
| Heptane | 142-82-5 | 100 | 0.200 | 0.818 | ND | ND | | 1 | WG1077830 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 0.630 | 6.73 | ND | ND | | 1 | WG1077830 |
| n-Hexane | 110-54-3 | 86.20 | 0.200 | 0.705 | 0.271 | 0.956 | | 1 | WG1077830 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.200 | 0.983 | ND | ND | | 1 | WG1077830 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.200 | 0.694 | 0.510 | 1.77 | | 1 | WG1077830 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 1.25 | 5.11 | ND | ND | | 1 | WG1077830 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 1.25 | 3.69 | ND | ND | | 1 | WG1077830 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 1.25 | 5.12 | ND | ND | | 1 | WG1077830 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.200 | 0.819 | ND | ND | | 1 | WG1077830 |
| MTBE | 1634-04-4 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077830 |
| Naphthalene | 91-20-3 | 128 | 0.630 | 3.30 | ND | ND | | 1 | WG1077830 |
| 2-Propanol | 67-63-0 | 60.10 | 1.25 | 3.07 | 2.34 | 5.75 | | 1 | WG1077830 |
| Propene | 115-07-1 | 42.10 | 0.400 | 0.689 | ND | ND | | 1 | WG1077830 |
| Styrene | 100-42-5 | 104 | 0.200 | 0.851 | ND | ND | | 1 | WG1077830 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.200 | 1.37 | ND | ND | | 1 | WG1077830 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.200 | 1.36 | ND | ND | | 1 | WG1077830 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.200 | 0.590 | ND | ND | | 1 | WG1077830 |
| Toluene | 108-88-3 | 92.10 | 0.200 | 0.753 | ND | ND | | 1 | WG1077830 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 0.630 | 4.66 | ND | ND | | 1 | WG1077830 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077830 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077830 |
| Trichloroethylene | 79-01-6 | 131 | 0.200 | 1.07 | ND | ND | | 1 | WG1077830 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077830 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077830 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.200 | 0.934 | ND | ND | | 1 | WG1077830 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.200 | 0.511 | ND | ND | | 1 | WG1077830 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.200 | 0.875 | ND | ND | | 1 | WG1077830 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.200 | 0.704 | ND | ND | | 1 | WG1077830 |
| m&p-Xylene | 1330-20-7 | 106 | 0.400 | 1.73 | ND | ND | | 1 | WG1077830 |
| o-Xylene | 95-47-6 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077830 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 50.0 | 207 | ND | ND | | 1 | WG1077830 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *96.3* | | | | WG1077830 |

## 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 | 1.67 | 3.98 | | 1 | WG1077830 |
| Allyl chloride | 107-05-1 | 76.53 | 0.200 | 0.626 | ND | ND | | 1 | WG1077830 |
| Benzene | 71-43-2 | 78.10 | 0.200 | 0.639 | ND | ND | | 1 | WG1077830 |
| Benzyl Chloride | 100-44-7 | 127 | 0.200 | 1.04 | ND | ND | | 1 | WG1077830 |
| Bromodichloromethane | 75-27-4 | 164 | 0.200 | 1.34 | ND | ND | | 1 | WG1077830 |
| Bromoform | 75-25-2 | 253 | 0.600 | 6.21 | ND | ND | | 1 | WG1077830 |
| Bromomethane | 74-83-9 | 94.90 | 0.200 | 0.776 | ND | ND | | 1 | WG1077830 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 2.00 | 4.43 | ND | ND | | 1 | WG1077830 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.200 | 0.622 | ND | ND | | 1 | WG1077830 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.200 | 1.26 | ND | ND | | 1 | WG1077830 |
| Chlorobenzene | 108-90-7 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077830 |
| Chloroethane | 75-00-3 | 64.50 | 0.200 | 0.528 | ND | ND | | 1 | WG1077830 |
| Chloroform | 67-66-3 | 119 | 0.200 | 0.973 | ND | ND | | 1 | WG1077830 |
| Chloromethane | 74-87-3 | 50.50 | 0.200 | 0.413 | 0.437 | 0.903 | | 1 | WG1077830 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.200 | 1.03 | ND | ND | | 1 | WG1077830 |
| Cyclohexane | 110-82-7 | 84.20 | 0.200 | 0.689 | ND | ND | | 1 | WG1077830 |
| Dibromochloromethane | 124-48-1 | 208 | 0.200 | 1.70 | ND | ND | | 1 | WG1077830 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.200 | 1.54 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077830 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077830 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.200 | 0.810 | ND | ND | | 1 | WG1077830 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.200 | 0.802 | ND | ND | | 1 | WG1077830 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077830 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077830 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077830 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077830 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077830 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077830 |
| Ethanol | 64-17-5 | 46.10 | 0.630 | 1.19 | 3.08 | 5.80 | | 1 | WG1077830 |
| Ethylbenzene | 100-41-4 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077830 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077830 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.200 | 1.12 | ND | ND | | 1 | WG1077830 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.200 | 0.989 | 0.324 | 1.60 | | 1 | WG1077830 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.200 | 1.53 | ND | ND | | 1 | WG1077830 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.200 | 1.40 | ND | ND | | 1 | WG1077830 |
| Heptane | 142-82-5 | 100 | 0.200 | 0.818 | ND | ND | | 1 | WG1077830 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 0.630 | 6.73 | ND | ND | | 1 | WG1077830 |
| n-Hexane | 110-54-3 | 86.20 | 0.200 | 0.705 | ND | ND | | 1 | WG1077830 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.200 | 0.983 | ND | ND | | 1 | WG1077830 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.200 | 0.694 | ND | ND | | 1 | WG1077830 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 1.25 | 5.11 | ND | ND | | 1 | WG1077830 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 1.25 | 3.69 | ND | ND | | 1 | WG1077830 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 1.25 | 5.12 | ND | ND | | 1 | WG1077830 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.200 | 0.819 | ND | ND | | 1 | WG1077830 |
| MTBE | 1634-04-4 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077830 |
| Naphthalene | 91-20-3 | 128 | 0.630 | 3.30 | ND | ND | | 1 | WG1077830 |
| 2-Propanol | 67-63-0 | 60.10 | 1.25 | 3.07 | ND | ND | | 1 | WG1077830 |
| Propene | 115-07-1 | 42.10 | 0.400 | 0.689 | ND | ND | | 1 | WG1077830 |
| Styrene | 100-42-5 | 104 | 0.200 | 0.851 | ND | ND | | 1 | WG1077830 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.200 | 1.37 | ND | ND | | 1 | WG1077830 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.200 | 1.36 | ND | ND | | 1 | WG1077830 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.200 | 0.590 | ND | ND | | 1 | WG1077830 |
| Toluene | 108-88-3 | 92.10 | 0.200 | 0.753 | ND | ND | | 1 | WG1077830 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 0.630 | 4.66 | ND | ND | | 1 | WG1077830 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077830 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077830 |
| Trichloroethylene | 79-01-6 | 131 | 0.200 | 1.07 | ND | ND | | 1 | WG1077830 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077830 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077830 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.200 | 0.934 | ND | ND | | 1 | WG1077830 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.200 | 0.511 | ND | ND | | 1 | WG1077830 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.200 | 0.875 | ND | ND | | 1 | WG1077830 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.200 | 0.704 | ND | ND | | 1 | WG1077830 |
| m&p-Xylene | 1330-20-7 | 106 | 0.400 | 1.73 | ND | ND | | 1 | WG1077830 |
| o-Xylene | 95-47-6 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077830 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 50.0 | 207 | ND | ND | | 1 | WG1077830 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *96.5* | | | | WG1077830 |

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 | 1.35 | 3.21 | | 1 | WG1077831 |
| Allyl chloride | 107-05-1 | 76.53 | 0.200 | 0.626 | ND | ND | | 1 | WG1077831 |
| Benzene | 71-43-2 | 78.10 | 0.200 | 0.639 | ND | ND | | 1 | WG1077831 |
| Benzyl Chloride | 100-44-7 | 127 | 0.200 | 1.04 | ND | ND | | 1 | WG1077831 |
| Bromodichloromethane | 75-27-4 | 164 | 0.200 | 1.34 | ND | ND | | 1 | WG1077831 |
| Bromoform | 75-25-2 | 253 | 0.600 | 6.21 | ND | ND | | 1 | WG1077831 |
| Bromomethane | 74-83-9 | 94.90 | 0.200 | 0.776 | ND | ND | | 1 | WG1077831 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 2.00 | 4.43 | ND | ND | | 1 | WG1077831 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.200 | 0.622 | ND | ND | | 1 | WG1077831 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.200 | 1.26 | ND | ND | | 1 | WG1077831 |
| Chlorobenzene | 108-90-7 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077831 |
| Chloroethane | 75-00-3 | 64.50 | 0.200 | 0.528 | ND | ND | | 1 | WG1077831 |
| Chloroform | 67-66-3 | 119 | 0.200 | 0.973 | ND | ND | | 1 | WG1077831 |
| Chloromethane | 74-87-3 | 50.50 | 0.200 | 0.413 | 0.660 | 1.36 | | 1 | WG1077831 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.200 | 1.03 | ND | ND | | 1 | WG1077831 |
| Cyclohexane | 110-82-7 | 84.20 | 0.200 | 0.689 | ND | ND | | 1 | WG1077831 |
| Dibromochloromethane | 124-48-1 | 208 | 0.200 | 1.70 | ND | ND | | 1 | WG1077831 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.200 | 1.54 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077831 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077831 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.200 | 1.20 | ND | ND | J4 | 1 | WG1077831 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.200 | 0.810 | ND | ND | | 1 | WG1077831 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.200 | 0.802 | ND | ND | | 1 | WG1077831 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077831 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077831 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077831 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077831 |
| Ethanol | 64-17-5 | 46.10 | 0.630 | 1.19 | 1.15 | 2.17 | | 1 | WG1077831 |
| Ethylbenzene | 100-41-4 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077831 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.200 | 1.12 | 0.253 | 1.42 | | 1 | WG1077831 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.200 | 0.989 | 0.378 | 1.87 | | 1 | WG1077831 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.200 | 1.53 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.200 | 1.40 | ND | ND | | 1 | WG1077831 |
| Heptane | 142-82-5 | 100 | 0.200 | 0.818 | ND | ND | | 1 | WG1077831 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 0.630 | 6.73 | ND | ND | | 1 | WG1077831 |
| n-Hexane | 110-54-3 | 86.20 | 0.200 | 0.705 | ND | ND | | 1 | WG1077831 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.200 | 0.983 | ND | ND | | 1 | WG1077831 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.200 | 0.694 | ND | ND | | 1 | WG1077831 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 1.25 | 5.11 | ND | ND | | 1 | WG1077831 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 1.25 | 3.69 | ND | ND | | 1 | WG1077831 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 1.25 | 5.12 | ND | ND | | 1 | WG1077831 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.200 | 0.819 | ND | ND | | 1 | WG1077831 |
| MTBE | 1634-04-4 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077831 |
| Naphthalene | 91-20-3 | 128 | 0.630 | 3.30 | ND | ND | | 1 | WG1077831 |
| 2-Propanol | 67-63-0 | 60.10 | 1.25 | 3.07 | ND | ND | | 1 | WG1077831 |
| Propene | 115-07-1 | 42.10 | 0.400 | 0.689 | ND | ND | | 1 | WG1077831 |
| Styrene | 100-42-5 | 104 | 0.200 | 0.851 | ND | ND | | 1 | WG1077831 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.200 | 1.37 | ND | ND | | 1 | WG1077831 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.200 | 1.36 | ND | ND | | 1 | WG1077831 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.200 | 0.590 | ND | ND | | 1 | WG1077831 |
| Toluene | 108-88-3 | 92.10 | 0.200 | 0.753 | ND | ND | | 1 | WG1077831 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 0.630 | 4.66 | ND | ND | | 1 | WG1077831 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077831 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077831 |
| Trichloroethylene | 79-01-6 | 131 | 0.200 | 1.07 | ND | ND | | 1 | WG1077831 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.200 | 0.934 | ND | ND | | 1 | WG1077831 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.200 | 0.511 | ND | ND | | 1 | WG1077831 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.200 | 0.875 | ND | ND | | 1 | WG1077831 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.200 | 0.704 | ND | ND | | 1 | WG1077831 |
| m&p-Xylene | 1330-20-7 | 106 | 0.400 | 1.73 | ND | ND | | 1 | WG1077831 |
| o-Xylene | 95-47-6 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077831 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 50.0 | 207 | ND | ND | | 1 | WG1077831 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *95.6* | | | | WG1077831 |

## 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 | 6.46 | 15.3 | | 1 | WG1077831 |
| Allyl chloride | 107-05-1 | 76.53 | 0.200 | 0.626 | ND | ND | | 1 | WG1077831 |
| Benzene | 71-43-2 | 78.10 | 0.200 | 0.639 | ND | ND | | 1 | WG1077831 |
| Benzyl Chloride | 100-44-7 | 127 | 0.200 | 1.04 | ND | ND | | 1 | WG1077831 |
| Bromodichloromethane | 75-27-4 | 164 | 0.200 | 1.34 | ND | ND | | 1 | WG1077831 |
| Bromoform | 75-25-2 | 253 | 0.600 | 6.21 | ND | ND | | 1 | WG1077831 |
| Bromomethane | 74-83-9 | 94.90 | 0.200 | 0.776 | ND | ND | | 1 | WG1077831 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 2.00 | 4.43 | ND | ND | | 1 | WG1077831 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.200 | 0.622 | ND | ND | | 1 | WG1077831 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.200 | 1.26 | ND | ND | | 1 | WG1077831 |
| Chlorobenzene | 108-90-7 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077831 |
| Chloroethane | 75-00-3 | 64.50 | 0.200 | 0.528 | ND | ND | | 1 | WG1077831 |
| Chloroform | 67-66-3 | 119 | 0.200 | 0.973 | ND | ND | | 1 | WG1077831 |
| Chloromethane | 74-87-3 | 50.50 | 0.200 | 0.413 | 0.714 | 1.48 | | 1 | WG1077831 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.200 | 1.03 | ND | ND | | 1 | WG1077831 |
| Cyclohexane | 110-82-7 | 84.20 | 0.200 | 0.689 | ND | ND | | 1 | WG1077831 |
| Dibromochloromethane | 124-48-1 | 208 | 0.200 | 1.70 | ND | ND | | 1 | WG1077831 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.200 | 1.54 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077831 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077831 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.200 | 1.20 | ND | ND | J4 | 1 | WG1077831 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.200 | 0.810 | ND | ND | | 1 | WG1077831 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.200 | 0.802 | ND | ND | | 1 | WG1077831 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077831 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077831 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077831 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077831 |
| Ethanol | 64-17-5 | 46.10 | 25.2 | 47.5 | 231 | 436 | | 40 | WG1078157 |
| Ethylbenzene | 100-41-4 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077831 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.200 | 1.12 | 0.260 | 1.46 | | 1 | WG1077831 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.200 | 0.989 | 0.416 | 2.06 | | 1 | WG1077831 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.200 | 1.53 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.200 | 1.40 | ND | ND | | 1 | WG1077831 |
| Heptane | 142-82-5 | 100 | 0.200 | 0.818 | ND | ND | | 1 | WG1077831 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 0.630 | 6.73 | ND | ND | | 1 | WG1077831 |
| n-Hexane | 110-54-3 | 86.20 | 0.200 | 0.705 | ND | ND | | 1 | WG1077831 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.200 | 0.983 | ND | ND | | 1 | WG1077831 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.200 | 0.694 | ND | ND | | 1 | WG1077831 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 1.25 | 5.11 | ND | ND | | 1 | WG1077831 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 1.25 | 3.69 | ND | ND | | 1 | WG1077831 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 1.25 | 5.12 | ND | ND | | 1 | WG1077831 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.200 | 0.819 | ND | ND | | 1 | WG1077831 |
| MTBE | 1634-04-4 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077831 |
| Naphthalene | 91-20-3 | 128 | 0.630 | 3.30 | ND | ND | | 1 | WG1077831 |
| 2-Propanol | 67-63-0 | 60.10 | 1.25 | 3.07 | 12.5 | 30.6 | | 1 | WG1077831 |
| Propene | 115-07-1 | 42.10 | 0.400 | 0.689 | ND | ND | | 1 | WG1077831 |
| Styrene | 100-42-5 | 104 | 0.200 | 0.851 | ND | ND | | 1 | WG1077831 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.200 | 1.37 | ND | ND | | 1 | WG1077831 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.200 | 1.36 | ND | ND | | 1 | WG1077831 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.200 | 0.590 | ND | ND | | 1 | WG1077831 |
| Toluene | 108-88-3 | 92.10 | 0.200 | 0.753 | 0.207 | 0.779 | | 1 | WG1077831 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 0.630 | 4.66 | ND | ND | | 1 | WG1077831 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077831 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077831 |
| Trichloroethylene | 79-01-6 | 131 | 0.200 | 1.07 | ND | ND | | 1 | WG1077831 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.200 | 0.934 | ND | ND | | 1 | WG1077831 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.200 | 0.511 | ND | ND | | 1 | WG1077831 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.200 | 0.875 | ND | ND | | 1 | WG1077831 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.200 | 0.704 | ND | ND | | 1 | WG1077831 |
| m&p-Xylene | 1330-20-7 | 106 | 0.400 | 1.73 | ND | ND | | 1 | WG1077831 |
| o-Xylene | 95-47-6 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077831 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 50.0 | 207 | ND | ND | | 1 | WG1077831 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *93.7* | | | | WG1077831 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *95.9* | | | | WG1078157 |

## 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 | 6.64 | 15.8 | | 1 | WG1077831 |
| Allyl chloride | 107-05-1 | 76.53 | 0.200 | 0.626 | ND | ND | | 1 | WG1077831 |
| Benzene | 71-43-2 | 78.10 | 0.200 | 0.639 | 0.223 | 0.711 | | 1 | WG1077831 |
| Benzyl Chloride | 100-44-7 | 127 | 0.200 | 1.04 | ND | ND | | 1 | WG1077831 |
| Bromodichloromethane | 75-27-4 | 164 | 0.200 | 1.34 | ND | ND | | 1 | WG1077831 |
| Bromoform | 75-25-2 | 253 | 0.600 | 6.21 | ND | ND | | 1 | WG1077831 |
| Bromomethane | 74-83-9 | 94.90 | 0.200 | 0.776 | ND | ND | | 1 | WG1077831 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 2.00 | 4.43 | ND | ND | | 1 | WG1077831 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.200 | 0.622 | ND | ND | | 1 | WG1077831 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.200 | 1.26 | ND | ND | | 1 | WG1077831 |
| Chlorobenzene | 108-90-7 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077831 |
| Chloroethane | 75-00-3 | 64.50 | 0.200 | 0.528 | ND | ND | | 1 | WG1077831 |
| Chloroform | 67-66-3 | 119 | 0.200 | 0.973 | ND | ND | | 1 | WG1077831 |
| Chloromethane | 74-87-3 | 50.50 | 0.200 | 0.413 | 0.738 | 1.52 | | 1 | WG1077831 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.200 | 1.03 | ND | ND | | 1 | WG1077831 |
| Cyclohexane | 110-82-7 | 84.20 | 0.200 | 0.689 | ND | ND | | 1 | WG1077831 |
| Dibromochloromethane | 124-48-1 | 208 | 0.200 | 1.70 | ND | ND | | 1 | WG1077831 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.200 | 1.54 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077831 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077831 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.200 | 1.20 | ND | ND | J4 | 1 | WG1077831 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.200 | 0.810 | ND | ND | | 1 | WG1077831 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.200 | 0.802 | ND | ND | | 1 | WG1077831 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077831 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077831 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077831 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077831 |
| Ethanol | 64-17-5 | 46.10 | 25.2 | 47.5 | 420 | 793 | | 40 | WG1077831 |
| Ethylbenzene | 100-41-4 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077831 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.200 | 1.12 | 0.262 | 1.47 | | 1 | WG1077831 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.200 | 0.989 | 0.449 | 2.22 | | 1 | WG1077831 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.200 | 1.53 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.200 | 1.40 | ND | ND | | 1 | WG1077831 |
| Heptane | 142-82-5 | 100 | 0.200 | 0.818 | ND | ND | | 1 | WG1077831 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 0.630 | 6.73 | ND | ND | | 1 | WG1077831 |
| n-Hexane | 110-54-3 | 86.20 | 0.200 | 0.705 | ND | ND | | 1 | WG1077831 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.200 | 0.983 | ND | ND | | 1 | WG1077831 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.200 | 0.694 | ND | ND | | 1 | WG1077831 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 1.25 | 5.11 | ND | ND | | 1 | WG1077831 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 1.25 | 3.69 | ND | ND | | 1 | WG1077831 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 1.25 | 5.12 | ND | ND | | 1 | WG1077831 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.200 | 0.819 | ND | ND | | 1 | WG1077831 |
| MTBE | 1634-04-4 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077831 |
| Naphthalene | 91-20-3 | 128 | 0.630 | 3.30 | ND | ND | | 1 | WG1077831 |
| 2-Propanol | 67-63-0 | 60.10 | 1.25 | 3.07 | 12.4 | 30.4 | | 1 | WG1077831 |
| Propene | 115-07-1 | 42.10 | 0.400 | 0.689 | ND | ND | | 1 | WG1077831 |
| Styrene | 100-42-5 | 104 | 0.200 | 0.851 | ND | ND | | 1 | WG1077831 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.200 | 1.37 | ND | ND | | 1 | WG1077831 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.200 | 1.36 | ND | ND | | 1 | WG1077831 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.200 | 0.590 | ND | ND | | 1 | WG1077831 |
| Toluene | 108-88-3 | 92.10 | 0.200 | 0.753 | 0.229 | 0.863 | | 1 | WG1077831 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 0.630 | 4.66 | ND | ND | | 1 | WG1077831 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077831 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077831 |
| Trichloroethylene | 79-01-6 | 131 | 0.200 | 1.07 | ND | ND | | 1 | WG1077831 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.200 | 0.934 | ND | ND | | 1 | WG1077831 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.200 | 0.511 | ND | ND | | 1 | WG1077831 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.200 | 0.875 | ND | ND | | 1 | WG1077831 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.200 | 0.704 | ND | ND | | 1 | WG1077831 |
| m&p-Xylene | 1330-20-7 | 106 | 0.400 | 1.73 | ND | ND | | 1 | WG1077831 |
| o-Xylene | 95-47-6 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077831 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 50.0 | 207 | ND | ND | | 1 | WG1077831 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *95.1* | | | | WG1077831 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *91.4* | | | | WG1077831 |

## 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 | 5.52 | 13.1 | | 1 | WG1077831 |
| Allyl chloride | 107-05-1 | 76.53 | 0.200 | 0.626 | ND | ND | | 1 | WG1077831 |
| Benzene | 71-43-2 | 78.10 | 0.200 | 0.639 | 0.200 | 0.639 | | 1 | WG1077831 |
| Benzyl Chloride | 100-44-7 | 127 | 0.200 | 1.04 | ND | ND | | 1 | WG1077831 |
| Bromodichloromethane | 75-27-4 | 164 | 0.200 | 1.34 | ND | ND | | 1 | WG1077831 |
| Bromoform | 75-25-2 | 253 | 0.600 | 6.21 | ND | ND | | 1 | WG1077831 |
| Bromomethane | 74-83-9 | 94.90 | 0.200 | 0.776 | ND | ND | | 1 | WG1077831 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 2.00 | 4.43 | ND | ND | | 1 | WG1077831 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.200 | 0.622 | ND | ND | | 1 | WG1077831 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.200 | 1.26 | ND | ND | | 1 | WG1077831 |
| Chlorobenzene | 108-90-7 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077831 |
| Chloroethane | 75-00-3 | 64.50 | 0.200 | 0.528 | ND | ND | | 1 | WG1077831 |
| Chloroform | 67-66-3 | 119 | 0.200 | 0.973 | ND | ND | | 1 | WG1077831 |
| Chloromethane | 74-87-3 | 50.50 | 0.200 | 0.413 | 0.691 | 1.43 | | 1 | WG1077831 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.200 | 1.03 | ND | ND | | 1 | WG1077831 |
| Cyclohexane | 110-82-7 | 84.20 | 0.200 | 0.689 | ND | ND | | 1 | WG1077831 |
| Dibromochloromethane | 124-48-1 | 208 | 0.200 | 1.70 | ND | ND | | 1 | WG1077831 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.200 | 1.54 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077831 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077831 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.200 | 1.20 | ND | ND | J4 | 1 | WG1077831 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.200 | 0.810 | ND | ND | | 1 | WG1077831 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.200 | 0.802 | ND | ND | | 1 | WG1077831 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077831 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077831 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077831 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077831 |
| Ethanol | 64-17-5 | 46.10 | 25.2 | 47.5 | 415 | 783 | | 40 | WG1077831 |
| Ethylbenzene | 100-41-4 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077831 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.200 | 1.12 | 0.243 | 1.36 | | 1 | WG1077831 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.200 | 0.989 | 0.400 | 1.98 | | 1 | WG1077831 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.200 | 1.53 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.200 | 1.40 | ND | ND | | 1 | WG1077831 |
| Heptane | 142-82-5 | 100 | 0.200 | 0.818 | ND | ND | | 1 | WG1077831 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 0.630 | 6.73 | ND | ND | | 1 | WG1077831 |
| n-Hexane | 110-54-3 | 86.20 | 0.200 | 0.705 | ND | ND | | 1 | WG1077831 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.200 | 0.983 | ND | ND | | 1 | WG1077831 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.200 | 0.694 | ND | ND | | 1 | WG1077831 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 1.25 | 5.11 | ND | ND | | 1 | WG1077831 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 1.25 | 3.69 | ND | ND | | 1 | WG1077831 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 1.25 | 5.12 | ND | ND | | 1 | WG1077831 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.200 | 0.819 | ND | ND | | 1 | WG1077831 |
| MTBE | 1634-04-4 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077831 |
| Naphthalene | 91-20-3 | 128 | 0.630 | 3.30 | ND | ND | | 1 | WG1077831 |
| 2-Propanol | 67-63-0 | 60.10 | 1.25 | 3.07 | 12.2 | 30.0 | | 1 | WG1077831 |
| Propene | 115-07-1 | 42.10 | 0.400 | 0.689 | ND | ND | | 1 | WG1077831 |
| Styrene | 100-42-5 | 104 | 0.200 | 0.851 | ND | ND | | 1 | WG1077831 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.200 | 1.37 | ND | ND | | 1 | WG1077831 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.200 | 1.36 | ND | ND | | 1 | WG1077831 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.200 | 0.590 | ND | ND | | 1 | WG1077831 |
| Toluene | 108-88-3 | 92.10 | 0.200 | 0.753 | ND | ND | | 1 | WG1077831 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 0.630 | 4.66 | ND | ND | | 1 | WG1077831 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077831 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077831 |
| Trichloroethylene | 79-01-6 | 131 | 0.200 | 1.07 | ND | ND | | 1 | WG1077831 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.200 | 0.934 | ND | ND | | 1 | WG1077831 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.200 | 0.511 | ND | ND | | 1 | WG1077831 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.200 | 0.875 | ND | ND | | 1 | WG1077831 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.200 | 0.704 | ND | ND | | 1 | WG1077831 |
| m&p-Xylene | 1330-20-7 | 106 | 0.400 | 1.73 | ND | ND | | 1 | WG1077831 |
| o-Xylene | 95-47-6 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077831 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 50.0 | 207 | ND | ND | | 1 | WG1077831 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *95.6* | | | | WG1077831 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *94.8* | | | | WG1077831 |

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 | 1.30 | 3.09 | | 1 | WG1077831 |
| Allyl chloride | 107-05-1 | 76.53 | 0.200 | 0.626 | ND | ND | | 1 | WG1077831 |
| Benzene | 71-43-2 | 78.10 | 0.200 | 0.639 | ND | ND | | 1 | WG1077831 |
| Benzyl Chloride | 100-44-7 | 127 | 0.200 | 1.04 | ND | ND | | 1 | WG1077831 |
| Bromodichloromethane | 75-27-4 | 164 | 0.200 | 1.34 | ND | ND | | 1 | WG1077831 |
| Bromoform | 75-25-2 | 253 | 0.600 | 6.21 | ND | ND | | 1 | WG1077831 |
| Bromomethane | 74-83-9 | 94.90 | 0.200 | 0.776 | ND | ND | | 1 | WG1077831 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 2.00 | 4.43 | ND | ND | | 1 | WG1077831 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.200 | 0.622 | ND | ND | | 1 | WG1077831 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.200 | 1.26 | ND | ND | | 1 | WG1077831 |
| Chlorobenzene | 108-90-7 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077831 |
| Chloroethane | 75-00-3 | 64.50 | 0.200 | 0.528 | ND | ND | | 1 | WG1077831 |
| Chloroform | 67-66-3 | 119 | 0.200 | 0.973 | ND | ND | | 1 | WG1077831 |
| Chloromethane | 74-87-3 | 50.50 | 0.200 | 0.413 | 0.858 | 1.77 | | 1 | WG1077831 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.200 | 1.03 | ND | ND | | 1 | WG1077831 |
| Cyclohexane | 110-82-7 | 84.20 | 0.200 | 0.689 | ND | ND | | 1 | WG1077831 |
| Dibromochloromethane | 124-48-1 | 208 | 0.200 | 1.70 | ND | ND | | 1 | WG1077831 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.200 | 1.54 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077831 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1077831 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.200 | 1.20 | ND | ND | J4 | 1 | WG1077831 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.200 | 0.810 | ND | ND | | 1 | WG1077831 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.200 | 0.802 | ND | ND | | 1 | WG1077831 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1077831 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077831 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1077831 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077831 |
| Ethanol | 64-17-5 | 46.10 | 0.630 | 1.19 | 2.38 | 4.50 | | 1 | WG1077831 |
| Ethylbenzene | 100-41-4 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077831 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.200 | 1.12 | 0.276 | 1.55 | | 1 | WG1077831 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.200 | 0.989 | 0.439 | 2.17 | | 1 | WG1077831 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.200 | 1.53 | ND | ND | | 1 | WG1077831 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.200 | 1.40 | ND | ND | | 1 | WG1077831 |
| Heptane | 142-82-5 | 100 | 0.200 | 0.818 | ND | ND | | 1 | WG1077831 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 0.630 | 6.73 | ND | ND | | 1 | WG1077831 |
| n-Hexane | 110-54-3 | 86.20 | 0.200 | 0.705 | ND | ND | | 1 | WG1077831 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.200 | 0.983 | ND | ND | | 1 | WG1077831 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.200 | 0.694 | ND | ND | | 1 | WG1077831 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 1.25 | 5.11 | ND | ND | | 1 | WG1077831 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 1.25 | 3.69 | ND | ND | | 1 | WG1077831 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 1.25 | 5.12 | ND | ND | | 1 | WG1077831 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.200 | 0.819 | ND | ND | | 1 | WG1077831 |
| MTBE | 1634-04-4 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1077831 |
| Naphthalene | 91-20-3 | 128 | 0.630 | 3.30 | ND | ND | | 1 | WG1077831 |
| 2-Propanol | 67-63-0 | 60.10 | 1.25 | 3.07 | ND | ND | | 1 | WG1077831 |
| Propene | 115-07-1 | 42.10 | 0.400 | 0.689 | ND | ND | | 1 | WG1077831 |
| Styrene | 100-42-5 | 104 | 0.200 | 0.851 | ND | ND | | 1 | WG1077831 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.200 | 1.37 | ND | ND | | 1 | WG1077831 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.200 | 1.36 | ND | ND | | 1 | WG1077831 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.200 | 0.590 | ND | ND | | 1 | WG1077831 |
| Toluene | 108-88-3 | 92.10 | 0.200 | 0.753 | ND | ND | | 1 | WG1077831 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 0.630 | 4.66 | ND | ND | | 1 | WG1077831 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077831 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1077831 |
| Trichloroethylene | 79-01-6 | 131 | 0.200 | 1.07 | ND | ND | | 1 | WG1077831 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1077831 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.200 | 0.934 | ND | ND | | 1 | WG1077831 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.200 | 0.511 | ND | ND | | 1 | WG1077831 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.200 | 0.875 | ND | ND | | 1 | WG1077831 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.200 | 0.704 | ND | ND | | 1 | WG1077831 |
| m&p-Xylene | 1330-20-7 | 106 | 0.400 | 1.73 | ND | ND | | 1 | WG1077831 |
| o-Xylene | 95-47-6 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1077831 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 50.0 | 207 | ND | ND | | 1 | WG1077831 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *93.8* | | | | WG1077831 |

## 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 | 2.93 | 6.97 | | 1 | WG1078686 |
| Allyl chloride | 107-05-1 | 76.53 | 0.200 | 0.626 | ND | ND | | 1 | WG1078686 |
| Benzene | 71-43-2 | 78.10 | 0.200 | 0.639 | ND | ND | | 1 | WG1078686 |
| Benzyl Chloride | 100-44-7 | 127 | 0.200 | 1.04 | ND | ND | | 1 | WG1078686 |
| Bromodichloromethane | 75-27-4 | 164 | 0.200 | 1.34 | ND | ND | | 1 | WG1078686 |
| Bromoform | 75-25-2 | 253 | 0.600 | 6.21 | ND | ND | | 1 | WG1078686 |
| Bromomethane | 74-83-9 | 94.90 | 0.200 | 0.776 | ND | ND | | 1 | WG1078686 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 2.00 | 4.43 | ND | ND | | 1 | WG1078686 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.200 | 0.622 | ND | ND | | 1 | WG1078686 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.200 | 1.26 | ND | ND | | 1 | WG1078686 |
| Chlorobenzene | 108-90-7 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1078686 |
| Chloroethane | 75-00-3 | 64.50 | 0.200 | 0.528 | ND | ND | | 1 | WG1078686 |
| Chloroform | 67-66-3 | 119 | 0.200 | 0.973 | ND | ND | | 1 | WG1078686 |
| Chloromethane | 74-87-3 | 50.50 | 0.200 | 0.413 | 0.417 | 0.861 | | 1 | WG1078686 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.200 | 1.03 | ND | ND | | 1 | WG1078686 |
| Cyclohexane | 110-82-7 | 84.20 | 0.200 | 0.689 | ND | ND | | 1 | WG1078686 |
| Dibromochloromethane | 124-48-1 | 208 | 0.200 | 1.70 | ND | ND | | 1 | WG1078686 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.200 | 1.54 | ND | ND | | 1 | WG1078686 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1078686 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1078686 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1078686 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.200 | 0.810 | ND | ND | | 1 | WG1078686 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.200 | 0.802 | ND | ND | | 1 | WG1078686 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1078686 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1078686 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1078686 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1078686 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1078686 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1078686 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1078686 |
| Ethanol | 64-17-5 | 46.10 | 0.630 | 1.19 | 2.99 | 5.65 | | 1 | WG1078686 |
| Ethylbenzene | 100-41-4 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1078686 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1078686 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.200 | 1.12 | ND | ND | | 1 | WG1078686 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.200 | 0.989 | 0.300 | 1.48 | | 1 | WG1078686 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.200 | 1.53 | ND | ND | | 1 | WG1078686 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.200 | 1.40 | ND | ND | | 1 | WG1078686 |
| Heptane | 142-82-5 | 100 | 0.200 | 0.818 | ND | ND | | 1 | WG1078686 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 0.630 | 6.73 | ND | ND | | 1 | WG1078686 |
| n-Hexane | 110-54-3 | 86.20 | 0.200 | 0.705 | ND | ND | | 1 | WG1078686 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.200 | 0.983 | ND | ND | | 1 | WG1078686 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.200 | 0.694 | ND | ND | | 1 | WG1078686 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 1.25 | 5.11 | ND | ND | | 1 | WG1078686 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 1.25 | 3.69 | ND | ND | | 1 | WG1078686 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 1.25 | 5.12 | ND | ND | | 1 | WG1078686 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.200 | 0.819 | ND | ND | | 1 | WG1078686 |
| MTBE | 1634-04-4 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1078686 |
| Naphthalene | 91-20-3 | 128 | 0.630 | 3.30 | ND | ND | | 1 | WG1078686 |
| 2-Propanol | 67-63-0 | 60.10 | 1.25 | 3.07 | ND | ND | | 1 | WG1078686 |
| Propene | 115-07-1 | 42.10 | 0.400 | 0.689 | ND | ND | | 1 | WG1078686 |
| Styrene | 100-42-5 | 104 | 0.200 | 0.851 | ND | ND | | 1 | WG1078686 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.200 | 1.37 | ND | ND | | 1 | WG1078686 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.200 | 1.36 | ND | ND | | 1 | WG1078686 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.200 | 0.590 | ND | ND | | 1 | WG1078686 |
| Toluene | 108-88-3 | 92.10 | 0.200 | 0.753 | ND | ND | | 1 | WG1078686 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 0.630 | 4.66 | ND | ND | | 1 | WG1078686 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1078686 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1078686 |
| Trichloroethylene | 79-01-6 | 131 | 0.200 | 1.07 | ND | ND | | 1 | WG1078686 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1078686 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1078686 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.200 | 0.934 | ND | ND | | 1 | WG1078686 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.200 | 0.511 | ND | ND | | 1 | WG1078686 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.200 | 0.875 | ND | ND | | 1 | WG1078686 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.200 | 0.704 | ND | ND | | 1 | WG1078686 |
| m&p-Xylene | 1330-20-7 | 106 | 0.400 | 1.73 | ND | ND | | 1 | WG1078686 |
| o-Xylene | 95-47-6 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1078686 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 50.0 | 207 | ND | ND | | 1 | WG1078686 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *96.7* | | | | WG1078686 |

## 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 | 8.91 | 21.2 | | 1 | WG1078686 |
| Allyl chloride | 107-05-1 | 76.53 | 0.200 | 0.626 | ND | ND | | 1 | WG1078686 |
| Benzene | 71-43-2 | 78.10 | 0.200 | 0.639 | ND | ND | | 1 | WG1078686 |
| Benzyl Chloride | 100-44-7 | 127 | 0.200 | 1.04 | ND | ND | | 1 | WG1078686 |
| Bromodichloromethane | 75-27-4 | 164 | 0.200 | 1.34 | ND | ND | | 1 | WG1078686 |
| Bromoform | 75-25-2 | 253 | 0.600 | 6.21 | ND | ND | | 1 | WG1078686 |
| Bromomethane | 74-83-9 | 94.90 | 0.200 | 0.776 | ND | ND | | 1 | WG1078686 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 2.00 | 4.43 | ND | ND | | 1 | WG1078686 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.200 | 0.622 | ND | ND | | 1 | WG1078686 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.200 | 1.26 | ND | ND | | 1 | WG1078686 |
| Chlorobenzene | 108-90-7 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1078686 |
| Chloroethane | 75-00-3 | 64.50 | 0.200 | 0.528 | ND | ND | | 1 | WG1078686 |
| Chloroform | 67-66-3 | 119 | 0.200 | 0.973 | ND | ND | | 1 | WG1078686 |
| Chloromethane | 74-87-3 | 50.50 | 0.200 | 0.413 | 0.449 | 0.927 | | 1 | WG1078686 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.200 | 1.03 | ND | ND | | 1 | WG1078686 |
| Cyclohexane | 110-82-7 | 84.20 | 0.200 | 0.689 | ND | ND | | 1 | WG1078686 |
| Dibromochloromethane | 124-48-1 | 208 | 0.200 | 1.70 | ND | ND | | 1 | WG1078686 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.200 | 1.54 | ND | ND | | 1 | WG1078686 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1078686 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1078686 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1078686 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.200 | 0.810 | ND | ND | | 1 | WG1078686 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.200 | 0.802 | ND | ND | | 1 | WG1078686 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1078686 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1078686 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1078686 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1078686 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1078686 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1078686 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1078686 |
| Ethanol | 64-17-5 | 46.10 | 25.2 | 47.5 | 278 | 524 | | 40 | WG1078686 |
| Ethylbenzene | 100-41-4 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1078686 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1078686 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.200 | 1.12 | 0.202 | 1.14 | | 1 | WG1078686 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.200 | 0.989 | 0.303 | 1.50 | | 1 | WG1078686 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.200 | 1.53 | ND | ND | | 1 | WG1078686 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.200 | 1.40 | ND | ND | | 1 | WG1078686 |
| Heptane | 142-82-5 | 100 | 0.200 | 0.818 | ND | ND | | 1 | WG1078686 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 0.630 | 6.73 | ND | ND | | 1 | WG1078686 |
| n-Hexane | 110-54-3 | 86.20 | 0.200 | 0.705 | ND | ND | | 1 | WG1078686 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.200 | 0.983 | ND | ND | | 1 | WG1078686 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.200 | 0.694 | ND | ND | | 1 | WG1078686 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 1.25 | 5.11 | ND | ND | | 1 | WG1078686 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 1.25 | 3.69 | ND | ND | | 1 | WG1078686 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 1.25 | 5.12 | ND | ND | | 1 | WG1078686 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.200 | 0.819 | ND | ND | | 1 | WG1078686 |
| MTBE | 1634-04-4 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1078686 |
| Naphthalene | 91-20-3 | 128 | 0.630 | 3.30 | ND | ND | | 1 | WG1078686 |
| 2-Propanol | 67-63-0 | 60.10 | 1.25 | 3.07 | 8.65 | 21.3 | | 1 | WG1078686 |
| Propene | 115-07-1 | 42.10 | 0.400 | 0.689 | ND | ND | | 1 | WG1078686 |
| Styrene | 100-42-5 | 104 | 0.200 | 0.851 | ND | ND | | 1 | WG1078686 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.200 | 1.37 | ND | ND | | 1 | WG1078686 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.200 | 1.36 | ND | ND | | 1 | WG1078686 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.200 | 0.590 | 4.14 | 12.2 | | 1 | WG1078686 |
| Toluene | 108-88-3 | 92.10 | 0.200 | 0.753 | 0.343 | 1.29 | | 1 | WG1078686 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 0.630 | 4.66 | ND | ND | | 1 | WG1078686 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1078686 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1078686 |
| Trichloroethylene | 79-01-6 | 131 | 0.200 | 1.07 | ND | ND | | 1 | WG1078686 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1078686 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1078686 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.200 | 0.934 | ND | ND | | 1 | WG1078686 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.200 | 0.511 | ND | ND | | 1 | WG1078686 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.200 | 0.875 | ND | ND | | 1 | WG1078686 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.200 | 0.704 | ND | ND | | 1 | WG1078686 |
| m&p-Xylene | 1330-20-7 | 106 | 0.400 | 1.73 | ND | ND | | 1 | WG1078686 |
| o-Xylene | 95-47-6 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1078686 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 50.0 | 207 | ND | ND | | 1 | WG1078686 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *96.2* | | | | WG1078686 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *93.0* | | | | WG1078686 |

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 | 1.92 | 4.55 | | 1 | WG1078686 |
| Allyl chloride | 107-05-1 | 76.53 | 0.200 | 0.626 | ND | ND | | 1 | WG1078686 |
| Benzene | 71-43-2 | 78.10 | 0.200 | 0.639 | ND | ND | | 1 | WG1078686 |
| Benzyl Chloride | 100-44-7 | 127 | 0.200 | 1.04 | ND | ND | | 1 | WG1078686 |
| Bromodichloromethane | 75-27-4 | 164 | 0.200 | 1.34 | ND | ND | | 1 | WG1078686 |
| Bromoform | 75-25-2 | 253 | 0.600 | 6.21 | ND | ND | | 1 | WG1078686 |
| Bromomethane | 74-83-9 | 94.90 | 0.200 | 0.776 | ND | ND | | 1 | WG1078686 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 2.00 | 4.43 | ND | ND | | 1 | WG1078686 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.200 | 0.622 | ND | ND | | 1 | WG1078686 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.200 | 1.26 | ND | ND | | 1 | WG1078686 |
| Chlorobenzene | 108-90-7 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1078686 |
| Chloroethane | 75-00-3 | 64.50 | 0.200 | 0.528 | ND | ND | | 1 | WG1078686 |
| Chloroform | 67-66-3 | 119 | 0.200 | 0.973 | ND | ND | | 1 | WG1078686 |
| Chloromethane | 74-87-3 | 50.50 | 0.200 | 0.413 | 0.382 | 0.790 | | 1 | WG1078686 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.200 | 1.03 | ND | ND | | 1 | WG1078686 |
| Cyclohexane | 110-82-7 | 84.20 | 0.200 | 0.689 | ND | ND | | 1 | WG1078686 |
| Dibromochloromethane | 124-48-1 | 208 | 0.200 | 1.70 | ND | ND | | 1 | WG1078686 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.200 | 1.54 | ND | ND | | 1 | WG1078686 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1078686 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1078686 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.200 | 1.20 | ND | ND | | 1 | WG1078686 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.200 | 0.810 | ND | ND | | 1 | WG1078686 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.200 | 0.802 | ND | ND | | 1 | WG1078686 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1078686 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1078686 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.200 | 0.793 | ND | ND | | 1 | WG1078686 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.200 | 0.924 | ND | ND | | 1 | WG1078686 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1078686 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.200 | 0.908 | ND | ND | | 1 | WG1078686 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1078686 |
| Ethanol | 64-17-5 | 46.10 | 0.630 | 1.19 | 2.38 | 4.49 | | 1 | WG1078686 |
| Ethylbenzene | 100-41-4 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1078686 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1078686 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.200 | 1.12 | ND | 1.12 | | 1 | WG1078686 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.200 | 0.989 | 0.293 | 1.45 | | 1 | WG1078686 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.200 | 1.53 | ND | ND | | 1 | WG1078686 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.200 | 1.40 | ND | ND | | 1 | WG1078686 |
| Heptane | 142-82-5 | 100 | 0.200 | 0.818 | ND | ND | | 1 | WG1078686 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 0.630 | 6.73 | ND | ND | | 1 | WG1078686 |
| n-Hexane | 110-54-3 | 86.20 | 0.200 | 0.705 | ND | ND | | 1 | WG1078686 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.200 | 0.983 | ND | ND | | 1 | WG1078686 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.200 | 0.694 | ND | ND | | 1 | WG1078686 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 1.25 | 5.11 | ND | ND | | 1 | WG1078686 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 1.25 | 3.69 | ND | ND | | 1 | WG1078686 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 1.25 | 5.12 | ND | ND | | 1 | WG1078686 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.200 | 0.819 | ND | ND | | 1 | WG1078686 |
| MTBE | 1634-04-4 | 88.10 | 0.200 | 0.721 | ND | ND | | 1 | WG1078686 |
| Naphthalene | 91-20-3 | 128 | 0.630 | 3.30 | ND | ND | | 1 | WG1078686 |
| 2-Propanol | 67-63-0 | 60.10 | 1.25 | 3.07 | ND | ND | | 1 | WG1078686 |
| Propene | 115-07-1 | 42.10 | 0.400 | 0.689 | ND | ND | | 1 | WG1078686 |
| Styrene | 100-42-5 | 104 | 0.200 | 0.851 | ND | ND | | 1 | WG1078686 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.200 | 1.37 | ND | ND | | 1 | WG1078686 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.200 | 1.36 | ND | ND | | 1 | WG1078686 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.200 | 0.590 | ND | ND | | 1 | WG1078686 |
| Toluene | 108-88-3 | 92.10 | 0.200 | 0.753 | ND | ND | | 1 | WG1078686 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 0.630 | 4.66 | ND | ND | | 1 | WG1078686 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1078686 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.200 | 1.09 | ND | ND | | 1 | WG1078686 |
| Trichloroethylene | 79-01-6 | 131 | 0.200 | 1.07 | ND | ND | | 1 | WG1078686 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1078686 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.200 | 0.982 | ND | ND | | 1 | WG1078686 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.200 | 0.934 | ND | ND | | 1 | WG1078686 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.200 | 0.511 | ND | ND | | 1 | WG1078686 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.200 | 0.875 | ND | ND | | 1 | WG1078686 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.200 | 0.704 | ND | ND | | 1 | WG1078686 |
| m&p-Xylene | 1330-20-7 | 106 | 0.400 | 1.73 | ND | ND | | 1 | WG1078686 |
| o-Xylene | 95-47-6 | 106 | 0.200 | 0.867 | ND | ND | | 1 | WG1078686 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 50.0 | 207 | ND | ND | | 1 | WG1078686 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *96.2* | | | | WG1078686 |

## Volatile Organic Compounds (GC) by Method ASTM 1946

| Analyte | CAS # | Mol. Wt. | RDL % | Result % | Qualifier | Dilution | Batch |
|---|---|---|---|---|---|---|---|
| Helium | 7440-59-7 | | 1.00 | ND | | 1 | WG1079245 |

## 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 | 2.50 | 5.94 | ND | ND | | 2 | WG1079166 |
| Allyl chloride | 107-05-1 | 76.53 | 0.400 | 1.25 | ND | ND | | 2 | WG1079166 |
| Benzene | 71-43-2 | 78.10 | 0.400 | 1.28 | ND | ND | | 2 | WG1079166 |
| Benzyl Chloride | 100-44-7 | 127 | 0.400 | 2.08 | ND | ND | | 2 | WG1079166 |
| Bromodichloromethane | 75-27-4 | 164 | 0.400 | 2.68 | ND | ND | | 2 | WG1079166 |
| Bromoform | 75-25-2 | 253 | 1.20 | 12.4 | ND | ND | | 2 | WG1079166 |
| Bromomethane | 74-83-9 | 94.90 | 0.400 | 1.55 | ND | ND | | 2 | WG1079166 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 4.00 | 8.85 | ND | ND | | 2 | WG1079166 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.400 | 1.24 | ND | ND | | 2 | WG1079166 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.400 | 2.52 | ND | ND | | 2 | WG1079166 |
| Chlorobenzene | 108-90-7 | 113 | 0.400 | 1.85 | ND | ND | | 2 | WG1079166 |
| Chloroethane | 75-00-3 | 64.50 | 0.400 | 1.06 | ND | ND | | 2 | WG1079166 |
| Chloroform | 67-66-3 | 119 | 0.400 | 1.95 | ND | ND | | 2 | WG1079166 |
| Chloromethane | 74-87-3 | 50.50 | 0.400 | 0.826 | ND | ND | | 2 | WG1079166 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.400 | 2.06 | ND | ND | | 2 | WG1079166 |
| Cyclohexane | 110-82-7 | 84.20 | 0.400 | 1.38 | ND | ND | | 2 | WG1079166 |
| Dibromochloromethane | 124-48-1 | 208 | 0.400 | 3.40 | ND | ND | | 2 | WG1079166 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.400 | 3.08 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.400 | 2.40 | ND | ND | | 2 | WG1079166 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.400 | 2.40 | ND | ND | | 2 | WG1079166 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.400 | 2.40 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.400 | 1.62 | ND | ND | | 2 | WG1079166 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.400 | 1.60 | ND | ND | | 2 | WG1079166 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.400 | 1.59 | ND | ND | | 2 | WG1079166 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.400 | 1.59 | ND | ND | | 2 | WG1079166 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.400 | 1.59 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.400 | 1.85 | ND | ND | | 2 | WG1079166 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.400 | 1.82 | ND | ND | | 2 | WG1079166 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.400 | 1.82 | ND | ND | | 2 | WG1079166 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.400 | 1.44 | ND | ND | | 2 | WG1079166 |
| Ethanol | 64-17-5 | 46.10 | 1.26 | 2.38 | 31.9 | 60.2 | | 2 | WG1079166 |
| Ethylbenzene | 100-41-4 | 106 | 0.400 | 1.73 | ND | ND | | 2 | WG1079166 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.400 | 1.96 | ND | ND | | 2 | WG1079166 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.400 | 2.25 | ND | ND | | 2 | WG1079166 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.400 | 1.98 | ND | ND | | 2 | WG1079166 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.400 | 3.07 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.400 | 2.80 | ND | ND | | 2 | WG1079166 |
| Heptane | 142-82-5 | 100 | 0.400 | 1.64 | ND | ND | | 2 | WG1079166 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 1.26 | 13.5 | ND | ND | | 2 | WG1079166 |
| n-Hexane | 110-54-3 | 86.20 | 0.400 | 1.41 | 0.548 | 1.93 | | 2 | WG1079166 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.400 | 1.97 | ND | ND | | 2 | WG1079166 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.400 | 1.39 | 1.48 | 5.14 | | 2 | WG1079166 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 2.50 | 10.2 | ND | ND | | 2 | WG1079166 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 2.50 | 7.37 | ND | ND | | 2 | WG1079166 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 2.50 | 10.2 | ND | ND | | 2 | WG1079166 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.400 | 1.64 | ND | ND | | 2 | WG1079166 |
| MTBE | 1634-04-4 | 88.10 | 0.400 | 1.44 | ND | ND | | 2 | WG1079166 |
| Naphthalene | 91-20-3 | 128 | 1.26 | 6.60 | ND | ND | | 2 | WG1079166 |
| 2-Propanol | 67-63-0 | 60.10 | 2.50 | 6.15 | ND | ND | | 2 | WG1079166 |
| Propene | 115-07-1 | 42.10 | 0.800 | 1.38 | ND | ND | | 2 | WG1079166 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| Styrene | 100-42-5 | 104 | 0.400 | 1.70 | ND | ND | | 2 | WG1079166 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.400 | 2.75 | ND | ND | | 2 | WG1079166 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.400 | 2.72 | ND | ND | | 2 | WG1079166 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.400 | 1.18 | ND | ND | | 2 | WG1079166 |
| Toluene | 108-88-3 | 92.10 | 0.400 | 1.51 | ND | ND | | 2 | WG1079166 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 1.26 | 9.33 | ND | ND | | 2 | WG1079166 |
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.400 | 2.18 | ND | ND | | 2 | WG1079166 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.400 | 2.18 | ND | ND | | 2 | WG1079166 |
| Trichloroethylene | 79-01-6 | 131 | 0.400 | 2.14 | ND | ND | | 2 | WG1079166 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.400 | 1.96 | ND | ND | | 2 | WG1079166 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.400 | 1.96 | ND | ND | | 2 | WG1079166 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.400 | 1.87 | ND | ND | | 2 | WG1079166 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.400 | 1.02 | ND | ND | | 2 | WG1079166 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.400 | 1.75 | ND | ND | | 2 | WG1079166 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.400 | 1.41 | ND | ND | | 2 | WG1079166 |
| m&p-Xylene | 1330-20-7 | 106 | 0.800 | 3.47 | ND | ND | | 2 | WG1079166 |
| o-Xylene | 95-47-6 | 106 | 0.400 | 1.73 | ND | ND | | 2 | WG1079166 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 100 | 413 | ND | ND | | 2 | WG1079166 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *97.0* | | | | WG1079166 |

## Organic Compounds (GC) by Method D1946

| Analyte | CAS # | Mol. Wt. | RDL % | Result % | Qualifier | Dilution | Batch |
|---|---|---|---|---|---|---|---|
| Oxygen | 7782-44-7 | 32 | 2.00 | 17.6 | | 1 | WG1079228 |
| Carbon Dioxide | 124-38-9 | 44.01 | 0.500 | ND | | 1 | WG1079228 |
| Methane | 74-82-8 | 16 | 0.400 | ND | | 1 | WG1079228 |

## Volatile Organic Compounds (GC) by Method ASTM 1946

| Analyte | CAS # | Mol. Wt. | RDL % | Result % | Qualifier | Dilution | Batch |
|---|---|---|---|---|---|---|---|
| Helium | 7440-59-7 | | 1.00 | ND | | 1 | WG1079245 |

## 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 | 2.50 | 5.94 | 14.4 | 34.2 | | 2 | WG1079166 |
| Allyl chloride | 107-05-1 | 76.53 | 0.400 | 1.25 | ND | ND | | 2 | WG1079166 |
| Benzene | 71-43-2 | 78.10 | 0.400 | 1.28 | ND | ND | | 2 | WG1079166 |
| Benzyl Chloride | 100-44-7 | 127 | 0.400 | 2.08 | ND | ND | | 2 | WG1079166 |
| Bromodichloromethane | 75-27-4 | 164 | 0.400 | 2.68 | ND | ND | | 2 | WG1079166 |
| Bromoform | 75-25-2 | 253 | 1.20 | 12.4 | ND | ND | | 2 | WG1079166 |
| Bromomethane | 74-83-9 | 94.90 | 0.400 | 1.55 | ND | ND | | 2 | WG1079166 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 4.00 | 8.85 | ND | ND | | 2 | WG1079166 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.400 | 1.24 | ND | ND | | 2 | WG1079166 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.400 | 2.52 | ND | ND | | 2 | WG1079166 |
| Chlorobenzene | 108-90-7 | 113 | 0.400 | 1.85 | ND | ND | | 2 | WG1079166 |
| Chloroethane | 75-00-3 | 64.50 | 0.400 | 1.06 | ND | ND | | 2 | WG1079166 |
| Chloroform | 67-66-3 | 119 | 0.400 | 1.95 | ND | ND | | 2 | WG1079166 |
| Chloromethane | 74-87-3 | 50.50 | 0.400 | 0.826 | 0.449 | 0.927 | | 2 | WG1079166 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.400 | 2.06 | ND | ND | | 2 | WG1079166 |
| Cyclohexane | 110-82-7 | 84.20 | 0.400 | 1.38 | ND | ND | | 2 | WG1079166 |
| Dibromochloromethane | 124-48-1 | 208 | 0.400 | 3.40 | ND | ND | | 2 | WG1079166 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.400 | 3.08 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.400 | 2.40 | ND | ND | | 2 | WG1079166 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.400 | 2.40 | ND | ND | | 2 | WG1079166 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.400 | 2.40 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.400 | 1.62 | ND | ND | | 2 | WG1079166 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.400 | 1.60 | ND | ND | | 2 | WG1079166 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.400 | 1.59 | ND | ND | | 2 | WG1079166 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.400 | 1.59 | ND | ND | | 2 | WG1079166 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.400 | 1.59 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.400 | 1.85 | ND | ND | | 2 | WG1079166 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.400 | 1.82 | ND | ND | | 2 | WG1079166 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.400 | 1.82 | ND | ND | | 2 | WG1079166 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.400 | 1.44 | ND | ND | | 2 | WG1079166 |
| Ethanol | 64-17-5 | 46.10 | 1.26 | 2.38 | 5.97 | 11.3 | | 2 | WG1079166 |
| Ethylbenzene | 100-41-4 | 106 | 0.400 | 1.73 | 0.651 | 2.82 | | 2 | WG1079166 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.400 | 1.96 | ND | ND | | 2 | WG1079166 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.400 | 2.25 | ND | ND | | 2 | WG1079166 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.400 | 1.98 | ND | ND | | 2 | WG1079166 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.400 | 3.07 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.400 | 2.80 | ND | ND | | 2 | WG1079166 |
| Heptane | 142-82-5 | 100 | 0.400 | 1.64 | ND | ND | | 2 | WG1079166 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 1.26 | 13.5 | ND | ND | | 2 | WG1079166 |
| n-Hexane | 110-54-3 | 86.20 | 0.400 | 1.41 | 1.03 | 3.62 | | 2 | WG1079166 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.400 | 1.97 | ND | ND | | 2 | WG1079166 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.400 | 1.39 | 2.07 | 7.18 | | 2 | WG1079166 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 2.50 | 10.2 | ND | ND | | 2 | WG1079166 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 2.50 | 7.37 | ND | ND | | 2 | WG1079166 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 2.50 | 10.2 | ND | ND | | 2 | WG1079166 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.400 | 1.64 | ND | ND | | 2 | WG1079166 |
| MTBE | 1634-04-4 | 88.10 | 0.400 | 1.44 | ND | ND | | 2 | WG1079166 |
| Naphthalene | 91-20-3 | 128 | 1.26 | 6.60 | ND | ND | | 2 | WG1079166 |
| 2-Propanol | 67-63-0 | 60.10 | 2.50 | 6.15 | ND | ND | | 2 | WG1079166 |
| Propene | 115-07-1 | 42.10 | 0.800 | 1.38 | ND | ND | | 2 | WG1079166 |

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 |
|---|---|---|---|---|---|---|---|---|---|
| Styrene | 100-42-5 | 104 | 0.400 | 1.70 | ND | ND | | 2 | WG1079166 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.400 | 2.75 | ND | ND | | 2 | WG1079166 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.400 | 2.72 | ND | ND | | 2 | WG1079166 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.400 | 1.18 | ND | ND | | 2 | WG1079166 |
| Toluene | 108-88-3 | 92.10 | 0.400 | 1.51 | 0.428 | 1.61 | | 2 | WG1079166 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 1.26 | 9.33 | ND | ND | | 2 | WG1079166 |
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.400 | 2.18 | ND | ND | | 2 | WG1079166 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.400 | 2.18 | ND | ND | | 2 | WG1079166 |
| Trichloroethylene | 79-01-6 | 131 | 0.400 | 2.14 | ND | ND | | 2 | WG1079166 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.400 | 1.96 | 0.438 | 2.15 | | 2 | WG1079166 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.400 | 1.96 | ND | ND | | 2 | WG1079166 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.400 | 1.87 | 0.475 | 2.22 | | 2 | WG1079166 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.400 | 1.02 | ND | ND | | 2 | WG1079166 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.400 | 1.75 | ND | ND | | 2 | WG1079166 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.400 | 1.41 | ND | ND | | 2 | WG1079166 |
| m&p-Xylene | 1330-20-7 | 106 | 0.800 | 3.47 | 1.86 | 8.08 | | 2 | WG1079166 |
| o-Xylene | 95-47-6 | 106 | 0.400 | 1.73 | 0.482 | 2.09 | | 2 | WG1079166 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 100 | 413 | ND | ND | | 2 | WG1079166 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *96.2* | | | | WG1079166 |

## Organic Compounds (GC) by Method D1946

| Analyte | CAS # | Mol. Wt. | RDL % | Result % | Qualifier | Dilution | Batch |
|---|---|---|---|---|---|---|---|
| Oxygen | 7782-44-7 | 32 | 2.00 | 17.5 | | 1 | WG1079228 |
| Carbon Dioxide | 124-38-9 | 44.01 | 0.500 | ND | | 1 | WG1079228 |
| Methane | 74-82-8 | 16 | 0.400 | ND | | 1 | WG1079228 |

## Volatile Organic Compounds (GC) by Method ASTM 1946

| Analyte | CAS # | Mol. Wt. | RDL % | Result % | Qualifier | Dilution | Batch |
|---|---|---|---|---|---|---|---|
| Helium | 7440-59-7 | | 1.00 | ND | | 1 | WG1079245 |

## 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 | 2.50 | 5.94 | 32.7 | 77.7 | | 2 | WG1079166 |
| Allyl chloride | 107-05-1 | 76.53 | 0.400 | 1.25 | ND | ND | | 2 | WG1079166 |
| Benzene | 71-43-2 | 78.10 | 0.400 | 1.28 | 0.532 | 1.70 | | 2 | WG1079166 |
| Benzyl Chloride | 100-44-7 | 127 | 0.400 | 2.08 | ND | ND | | 2 | WG1079166 |
| Bromodichloromethane | 75-27-4 | 164 | 0.400 | 2.68 | ND | ND | | 2 | WG1079166 |
| Bromoform | 75-25-2 | 253 | 1.20 | 12.4 | ND | ND | | 2 | WG1079166 |
| Bromomethane | 74-83-9 | 94.90 | 0.400 | 1.55 | ND | ND | | 2 | WG1079166 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 4.00 | 8.85 | ND | ND | | 2 | WG1079166 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.400 | 1.24 | ND | ND | | 2 | WG1079166 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.400 | 2.52 | ND | ND | | 2 | WG1079166 |
| Chlorobenzene | 108-90-7 | 113 | 0.400 | 1.85 | ND | ND | | 2 | WG1079166 |
| Chloroethane | 75-00-3 | 64.50 | 0.400 | 1.06 | ND | ND | | 2 | WG1079166 |
| Chloroform | 67-66-3 | 119 | 0.400 | 1.95 | ND | ND | | 2 | WG1079166 |
| Chloromethane | 74-87-3 | 50.50 | 0.400 | 0.826 | 2.84 | 5.86 | | 2 | WG1079166 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.400 | 2.06 | ND | ND | | 2 | WG1079166 |
| Cyclohexane | 110-82-7 | 84.20 | 0.400 | 1.38 | ND | ND | | 2 | WG1079166 |
| Dibromochloromethane | 124-48-1 | 208 | 0.400 | 3.40 | ND | ND | | 2 | WG1079166 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.400 | 3.08 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.400 | 2.40 | ND | ND | | 2 | WG1079166 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.400 | 2.40 | ND | ND | | 2 | WG1079166 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.400 | 2.40 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.400 | 1.62 | ND | ND | | 2 | WG1079166 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.400 | 1.60 | ND | ND | | 2 | WG1079166 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.400 | 1.59 | ND | ND | | 2 | WG1079166 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.400 | 1.59 | ND | ND | | 2 | WG1079166 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.400 | 1.59 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.400 | 1.85 | ND | ND | | 2 | WG1079166 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.400 | 1.82 | ND | ND | | 2 | WG1079166 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.400 | 1.82 | ND | ND | | 2 | WG1079166 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.400 | 1.44 | 0.660 | 2.38 | | 2 | WG1079166 |
| Ethanol | 64-17-5 | 46.10 | 1.26 | 2.38 | 7.09 | 13.4 | | 2 | WG1079166 |
| Ethylbenzene | 100-41-4 | 106 | 0.400 | 1.73 | 0.675 | 2.93 | | 2 | WG1079166 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.400 | 1.96 | ND | ND | | 2 | WG1079166 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.400 | 2.25 | ND | ND | | 2 | WG1079166 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.400 | 1.98 | ND | ND | | 2 | WG1079166 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.400 | 3.07 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.400 | 2.80 | ND | ND | | 2 | WG1079166 |
| Heptane | 142-82-5 | 100 | 0.400 | 1.64 | ND | ND | | 2 | WG1079166 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 1.26 | 13.5 | ND | ND | | 2 | WG1079166 |
| n-Hexane | 110-54-3 | 86.20 | 0.400 | 1.41 | ND | ND | | 2 | WG1079166 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.400 | 1.97 | ND | ND | | 2 | WG1079166 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.400 | 1.39 | 1.10 | 3.82 | | 2 | WG1079166 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 2.50 | 10.2 | ND | ND | | 2 | WG1079166 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 2.50 | 7.37 | 3.44 | 10.2 | | 2 | WG1079166 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 2.50 | 10.2 | ND | ND | | 2 | WG1079166 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.400 | 1.64 | ND | ND | | 2 | WG1079166 |
| MTBE | 1634-04-4 | 88.10 | 0.400 | 1.44 | ND | ND | | 2 | WG1079166 |
| Naphthalene | 91-20-3 | 128 | 1.26 | 6.60 | ND | ND | | 2 | WG1079166 |
| 2-Propanol | 67-63-0 | 60.10 | 2.50 | 6.15 | ND | ND | | 2 | WG1079166 |
| Propene | 115-07-1 | 42.10 | 0.800 | 1.38 | 0.902 | 1.55 | | 2 | WG1079166 |

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 |
|---|---|---|---|---|---|---|---|---|---|
| Styrene | 100-42-5 | 104 | 0.400 | 1.70 | ND | ND | | 2 | WG1079166 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.400 | 2.75 | ND | ND | | 2 | WG1079166 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.400 | 2.72 | ND | ND | | 2 | WG1079166 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.400 | 1.18 | 22.3 | 65.9 | | 2 | WG1079166 |
| Toluene | 108-88-3 | 92.10 | 0.400 | 1.51 | 0.540 | 2.03 | | 2 | WG1079166 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 1.26 | 9.33 | ND | ND | | 2 | WG1079166 |
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.400 | 2.18 | ND | ND | | 2 | WG1079166 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.400 | 2.18 | ND | ND | | 2 | WG1079166 |
| Trichloroethylene | 79-01-6 | 131 | 0.400 | 2.14 | ND | ND | | 2 | WG1079166 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.400 | 1.96 | 0.448 | 2.20 | | 2 | WG1079166 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.400 | 1.96 | ND | ND | | 2 | WG1079166 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.400 | 1.87 | ND | ND | | 2 | WG1079166 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.400 | 1.02 | ND | ND | | 2 | WG1079166 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.400 | 1.75 | ND | ND | | 2 | WG1079166 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.400 | 1.41 | ND | ND | | 2 | WG1079166 |
| m&p-Xylene | 1330-20-7 | 106 | 0.800 | 3.47 | 1.67 | 7.25 | | 2 | WG1079166 |
| o-Xylene | 95-47-6 | 106 | 0.400 | 1.73 | ND | ND | | 2 | WG1079166 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 100 | 413 | ND | ND | | 2 | WG1079166 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *96.0* | | | | WG1079166 |

## Organic Compounds (GC) by Method D1946

| Analyte | CAS # | Mol. Wt. | RDL % | Result % | Qualifier | Dilution | Batch |
|---|---|---|---|---|---|---|---|
| Oxygen | 7782-44-7 | 32 | 2.00 | 17.5 | | 1 | WG1079228 |
| Carbon Dioxide | 124-38-9 | 44.01 | 0.500 | ND | | 1 | WG1079228 |
| Methane | 74-82-8 | 16 | 0.400 | ND | | 1 | WG1079228 |

## Volatile Organic Compounds (GC) by Method ASTM 1946

| Analyte | CAS # | Mol. Wt. | RDL % | Result % | Qualifier | Dilution | Batch |
|---|---|---|---|---|---|---|---|
| Helium | 7440-59-7 | | 1.00 | ND | | 1 | WG1079245 |

## 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 | 2.50 | 5.94 | 13.1 | 31.1 | | 2 | WG1079166 |
| Allyl chloride | 107-05-1 | 76.53 | 0.400 | 1.25 | ND | ND | | 2 | WG1079166 |
| Benzene | 71-43-2 | 78.10 | 0.400 | 1.28 | ND | ND | | 2 | WG1079166 |
| Benzyl Chloride | 100-44-7 | 127 | 0.400 | 2.08 | ND | ND | | 2 | WG1079166 |
| Bromodichloromethane | 75-27-4 | 164 | 0.400 | 2.68 | ND | ND | | 2 | WG1079166 |
| Bromoform | 75-25-2 | 253 | 1.20 | 12.4 | ND | ND | | 2 | WG1079166 |
| Bromomethane | 74-83-9 | 94.90 | 0.400 | 1.55 | ND | ND | | 2 | WG1079166 |
| 1,3-Butadiene | 106-99-0 | 54.10 | 4.00 | 8.85 | ND | ND | | 2 | WG1079166 |
| Carbon disulfide | 75-15-0 | 76.10 | 0.400 | 1.24 | ND | ND | | 2 | WG1079166 |
| Carbon tetrachloride | 56-23-5 | 154 | 0.400 | 2.52 | ND | ND | | 2 | WG1079166 |
| Chlorobenzene | 108-90-7 | 113 | 0.400 | 1.85 | ND | ND | | 2 | WG1079166 |
| Chloroethane | 75-00-3 | 64.50 | 0.400 | 1.06 | ND | ND | | 2 | WG1079166 |
| Chloroform | 67-66-3 | 119 | 0.400 | 1.95 | ND | ND | | 2 | WG1079166 |
| Chloromethane | 74-87-3 | 50.50 | 0.400 | 0.826 | ND | ND | | 2 | WG1079166 |
| 2-Chlorotoluene | 95-49-8 | 126 | 0.400 | 2.06 | ND | ND | | 2 | WG1079166 |
| Cyclohexane | 110-82-7 | 84.20 | 0.400 | 1.38 | ND | ND | | 2 | WG1079166 |
| Dibromochloromethane | 124-48-1 | 208 | 0.400 | 3.40 | ND | ND | | 2 | WG1079166 |
| 1,2-Dibromoethane | 106-93-4 | 188 | 0.400 | 3.08 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichlorobenzene | 95-50-1 | 147 | 0.400 | 2.40 | ND | ND | | 2 | WG1079166 |
| 1,3-Dichlorobenzene | 541-73-1 | 147 | 0.400 | 2.40 | ND | ND | | 2 | WG1079166 |
| 1,4-Dichlorobenzene | 106-46-7 | 147 | 0.400 | 2.40 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichloroethane | 107-06-2 | 99 | 0.400 | 1.62 | ND | ND | | 2 | WG1079166 |
| 1,1-Dichloroethane | 75-34-3 | 98 | 0.400 | 1.60 | ND | ND | | 2 | WG1079166 |
| 1,1-Dichloroethene | 75-35-4 | 96.90 | 0.400 | 1.59 | ND | ND | | 2 | WG1079166 |
| cis-1,2-Dichloroethene | 156-59-2 | 96.90 | 0.400 | 1.59 | ND | ND | | 2 | WG1079166 |
| trans-1,2-Dichloroethene | 156-60-5 | 96.90 | 0.400 | 1.59 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichloropropane | 78-87-5 | 113 | 0.400 | 1.85 | ND | ND | | 2 | WG1079166 |
| cis-1,3-Dichloropropene | 10061-01-5 | 111 | 0.400 | 1.82 | ND | ND | | 2 | WG1079166 |
| trans-1,3-Dichloropropene | 10061-02-6 | 111 | 0.400 | 1.82 | ND | ND | | 2 | WG1079166 |
| 1,4-Dioxane | 123-91-1 | 88.10 | 0.400 | 1.44 | 1.72 | 6.20 | | 2 | WG1079166 |
| Ethanol | 64-17-5 | 46.10 | 1.26 | 2.38 | 6.42 | 12.1 | | 2 | WG1079166 |
| Ethylbenzene | 100-41-4 | 106 | 0.400 | 1.73 | ND | ND | | 2 | WG1079166 |
| 4-Ethyltoluene | 622-96-8 | 120 | 0.400 | 1.96 | ND | ND | | 2 | WG1079166 |
| Trichlorofluoromethane | 75-69-4 | 137.40 | 0.400 | 2.25 | ND | ND | | 2 | WG1079166 |
| Dichlorodifluoromethane | 75-71-8 | 120.92 | 0.400 | 1.98 | ND | ND | | 2 | WG1079166 |
| 1,1,2-Trichlorotrifluoroethane | 76-13-1 | 187.40 | 0.400 | 3.07 | ND | ND | | 2 | WG1079166 |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | 171 | 0.400 | 2.80 | ND | ND | | 2 | WG1079166 |
| Heptane | 142-82-5 | 100 | 0.400 | 1.64 | ND | ND | | 2 | WG1079166 |
| Hexachloro-1,3-butadiene | 87-68-3 | 261 | 1.26 | 13.5 | ND | ND | | 2 | WG1079166 |
| n-Hexane | 110-54-3 | 86.20 | 0.400 | 1.41 | 0.402 | 1.42 | | 2 | WG1079166 |
| Isopropylbenzene | 98-82-8 | 120.20 | 0.400 | 1.97 | ND | ND | | 2 | WG1079166 |
| Methylene Chloride | 75-09-2 | 84.90 | 0.400 | 1.39 | 1.14 | 3.96 | | 2 | WG1079166 |
| Methyl Butyl Ketone | 591-78-6 | 100 | 2.50 | 10.2 | ND | ND | | 2 | WG1079166 |
| 2-Butanone (MEK) | 78-93-3 | 72.10 | 2.50 | 7.37 | ND | ND | | 2 | WG1079166 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | 100.10 | 2.50 | 10.2 | ND | ND | | 2 | WG1079166 |
| Methyl methacrylate | 80-62-6 | 100.12 | 0.400 | 1.64 | ND | ND | | 2 | WG1079166 |
| MTBE | 1634-04-4 | 88.10 | 0.400 | 1.44 | ND | ND | | 2 | WG1079166 |
| Naphthalene | 91-20-3 | 128 | 1.26 | 6.60 | ND | ND | | 2 | WG1079166 |
| 2-Propanol | 67-63-0 | 60.10 | 2.50 | 6.15 | ND | ND | | 2 | WG1079166 |
| Propene | 115-07-1 | 42.10 | 0.800 | 1.38 | ND | ND | | 2 | WG1079166 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| Styrene | 100-42-5 | 104 | 0.400 | 1.70 | ND | ND | | 2 | WG1079166 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 168 | 0.400 | 2.75 | ND | ND | | 2 | WG1079166 |
| Tetrachloroethylene | 127-18-4 | 166 | 0.400 | 2.72 | ND | ND | | 2 | WG1079166 |
| Tetrahydrofuran | 109-99-9 | 72.10 | 0.400 | 1.18 | 1.16 | 3.42 | | 2 | WG1079166 |
| Toluene | 108-88-3 | 92.10 | 0.400 | 1.51 | ND | ND | | 2 | WG1079166 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 181 | 1.26 | 9.33 | ND | ND | | 2 | WG1079166 |
| 1,1,1-Trichloroethane | 71-55-6 | 133 | 0.400 | 2.18 | ND | ND | | 2 | WG1079166 |
| 1,1,2-Trichloroethane | 79-00-5 | 133 | 0.400 | 2.18 | ND | ND | | 2 | WG1079166 |
| Trichloroethylene | 79-01-6 | 131 | 0.400 | 2.14 | ND | ND | | 2 | WG1079166 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 120 | 0.400 | 1.96 | ND | ND | | 2 | WG1079166 |
| 1,3,5-Trimethylbenzene | 108-67-8 | 120 | 0.400 | 1.96 | ND | ND | | 2 | WG1079166 |
| 2,2,4-Trimethylpentane | 540-84-1 | 114.22 | 0.400 | 1.87 | ND | ND | | 2 | WG1079166 |
| Vinyl chloride | 75-01-4 | 62.50 | 0.400 | 1.02 | ND | ND | | 2 | WG1079166 |
| Vinyl Bromide | 593-60-2 | 106.95 | 0.400 | 1.75 | ND | ND | | 2 | WG1079166 |
| Vinyl acetate | 108-05-4 | 86.10 | 0.400 | 1.41 | ND | ND | | 2 | WG1079166 |
| m&p-Xylene | 1330-20-7 | 106 | 0.800 | 3.47 | ND | ND | | 2 | WG1079166 |
| o-Xylene | 95-47-6 | 106 | 0.400 | 1.73 | ND | ND | | 2 | WG1079166 |
| TPH (GC/MS) Low Fraction | 8006-61-9 | 101 | 100 | 413 | ND | ND | | 2 | WG1079166 |
| *(S) 1,4-Bromofluorobenzene* | *460-00-4* | *175* | *60.0-140* | | *96.5* | | | | WG1079166 |

## Organic Compounds (GC) by Method D1946

| Analyte | CAS # | Mol. Wt. | RDL % | Result % | Qualifier | Dilution | Batch |
|---|---|---|---|---|---|---|---|
| Oxygen | 7782-44-7 | 32 | 2.00 | 17.0 | | 1 | WG1079228 |
| Carbon Dioxide | 124-38-9 | 44.01 | 0.500 | 0.556 | | 1 | WG1079228 |
| Methane | 74-82-8 | 16 | 0.400 | ND | | 1 | WG1079228 |

## Method Blank (MB)

(MB) R3289896-3 03/01/18 14:14

| Analyte | MB Result % | MB Qualifier | MB MDL % | MB RDL % |
|---|---|---|---|---|
| Helium | U | | 0.330 | 1.00 |

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

(LCS) R3289896-1 03/01/18 14:07 • (LCSD) R3289896-2 03/01/18 14:10

| Analyte | Spike Amount % | LCS Result % | LCSD Result % | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Helium | 2.50 | 2.49 | 2.35 | 99.7 | 94.1 | 70.0-130 | | | 5.76 | 25 |

## Method Blank (MB)

(MB) R3288947-3 02/26/18 10:40

| Analyte | MB Result ppbv | MB Qualifier | MB MDL ppbv | MB RDL ppbv |
|---|---|---|---|---|
| Acetone | U | | 0.0569 | 1.25 |
| Allyl Chloride | U | | 0.0546 | 0.200 |
| Benzene | U | | 0.0460 | 0.200 |
| Benzyl Chloride | U | | 0.0598 | 0.200 |
| Bromodichloromethane | U | | 0.0436 | 0.200 |
| Bromoform | U | | 0.0786 | 0.600 |
| Bromomethane | U | | 0.0609 | 0.200 |
| 1,3-Butadiene | U | | 0.0563 | 2.00 |
| Carbon disulfide | U | | 0.0544 | 0.200 |
| Carbon tetrachloride | U | | 0.0585 | 0.200 |
| Chlorobenzene | U | | 0.0601 | 0.200 |
| Chloroethane | U | | 0.0489 | 0.200 |
| Chloroform | U | | 0.0574 | 0.200 |
| Chloromethane | U | | 0.0544 | 0.200 |
| 2-Chlorotoluene | U | | 0.0605 | 0.200 |
| Cyclohexane | U | | 0.0534 | 0.200 |
| Dibromochloromethane | U | | 0.0494 | 0.200 |
| 1,2-Dibromoethane | U | | 0.0185 | 0.200 |
| 1,2-Dichlorobenzene | U | | 0.0603 | 0.200 |
| 1,3-Dichlorobenzene | U | | 0.0597 | 0.200 |
| 1,4-Dichlorobenzene | U | | 0.0557 | 0.200 |
| 1,2-Dichloroethane | U | | 0.0616 | 0.200 |
| 1,1-Dichloroethane | U | | 0.0514 | 0.200 |
| 1,1-Dichloroethene | U | | 0.0490 | 0.200 |
| cis-1,2-Dichloroethene | U | | 0.0389 | 0.200 |
| trans-1,2-Dichloroethene | U | | 0.0464 | 0.200 |
| 1,2-Dichloropropane | U | | 0.0599 | 0.200 |
| cis-1,3-Dichloropropene | U | | 0.0588 | 0.200 |
| trans-1,3-Dichloropropene | U | | 0.0435 | 0.200 |
| 1,4-Dioxane | U | | 0.0554 | 0.200 |
| Ethylbenzene | U | | 0.0506 | 0.200 |
| 4-Ethyltoluene | U | | 0.0666 | 0.200 |
| Trichlorofluoromethane | U | | 0.0673 | 0.200 |
| Dichlorodifluoromethane | U | | 0.0601 | 0.200 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.0687 | 0.200 |
| 1,2-Dichlorotetrafluoroethane | U | | 0.0458 | 0.200 |
| Heptane | U | | 0.0626 | 0.200 |
| Hexachloro-1,3-butadiene | U | | 0.0656 | 0.630 |
| n-Hexane | U | | 0.0457 | 0.200 |
| Isopropylbenzene | U | | 0.0563 | 0.200 |

## Method Blank (MB)

(MB) R3288947-3 02/26/18 10:40

| Analyte | MB Result ppbv | MB Qualifier | MB MDL ppbv | MB RDL ppbv |
|---|---|---|---|---|
| Methylene Chloride | U | | 0.0465 | 0.200 |
| Methyl Butyl Ketone | U | | 0.0682 | 1.25 |
| 2-Butanone (MEK) | U | | 0.0493 | 1.25 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.0650 | 1.25 |
| Methyl Methacrylate | U | | 0.0773 | 0.200 |
| MTBE | U | | 0.0505 | 0.200 |
| Naphthalene | U | | 0.154 | 0.630 |
| 2-Propanol | U | | 0.0882 | 1.25 |
| Propene | U | | 0.0932 | 0.400 |
| Styrene | U | | 0.0465 | 0.200 |
| 1,1,2,2-Tetrachloroethane | U | | 0.0576 | 0.200 |
| Tetrachloroethylene | U | | 0.0497 | 0.200 |
| Tetrahydrofuran | U | | 0.0508 | 0.200 |
| Toluene | U | | 0.0499 | 0.200 |
| 1,2,4-Trichlorobenzene | U | | 0.148 | 0.630 |
| 1,1,1-Trichloroethane | U | | 0.0665 | 0.200 |
| 1,1,2-Trichloroethane | U | | 0.0287 | 0.200 |
| Trichloroethylene | U | | 0.0545 | 0.200 |
| 1,2,4-Trimethylbenzene | U | | 0.0483 | 0.200 |
| 1,3,5-Trimethylbenzene | U | | 0.0631 | 0.200 |
| 2,2,4-Trimethylpentane | U | | 0.0456 | 0.200 |
| Vinyl chloride | U | | 0.0457 | 0.200 |
| Vinyl Bromide | U | | 0.0727 | 0.200 |
| Vinyl acetate | U | | 0.0639 | 0.200 |
| m&p-Xylene | U | | 0.0946 | 0.400 |
| o-Xylene | U | | 0.0633 | 0.200 |
| Ethanol | U | | 0.0832 | 0.630 |
| TPH (GC/MS) Low Fraction | U | | 6.91 | 50.0 |
| *(S) 1,4-Bromofluorobenzene* | *95.6* | | | *60.0-140* |

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

(LCS) R3288947-1 02/26/18 09:10 • (LCSD) R3288947-2 02/26/18 09:54

| 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 | 3.43 | 3.42 | 91.6 | 91.2 | 52.0-158 | | | 0.422 | 25 |
| Propene | 3.75 | 3.60 | 3.56 | 96.0 | 95.0 | 54.0-155 | | | 1.05 | 25 |
| Dichlorodifluoromethane | 3.75 | 3.56 | 3.43 | 94.9 | 91.4 | 69.0-143 | | | 3.76 | 25 |
| 1,2-Dichlorotetrafluoroethane | 3.75 | 3.71 | 3.69 | 98.9 | 98.4 | 70.0-130 | | | 0.564 | 25 |

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

(LCS) R3288947-1 02/26/18 09:10 • (LCSD) R3288947-2 02/26/18 09:54

| Analyte | Spike Amount ppbv | LCS Result ppbv | LCSD Result ppbv | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | 3.75 | 3.53 | 3.56 | 94.0 | 94.9 | 70.0-130 | | | 0.965 | 25 |
| Vinyl chloride | 3.75 | 3.72 | 3.71 | 99.2 | 98.9 | 70.0-130 | | | 0.311 | 25 |
| 1,3-Butadiene | 3.75 | 3.82 | 3.77 | 102 | 100 | 70.0-130 | | | 1.31 | 25 |
| Bromomethane | 3.75 | 3.40 | 3.39 | 90.7 | 90.4 | 70.0-130 | | | 0.404 | 25 |
| Chloroethane | 3.75 | 3.68 | 3.68 | 98.1 | 98.2 | 70.0-130 | | | 0.0346 | 25 |
| Trichlorofluoromethane | 3.75 | 3.73 | 3.72 | 99.4 | 99.3 | 70.0-130 | | | 0.0825 | 25 |
| 1,1,2-Trichlorotrifluoroethane | 3.75 | 3.77 | 3.76 | 100 | 100 | 70.0-130 | | | 0.133 | 25 |
| 1,1-Dichloroethene | 3.75 | 3.70 | 3.69 | 98.7 | 98.3 | 70.0-130 | | | 0.412 | 25 |
| 1,1-Dichloroethane | 3.75 | 3.74 | 3.72 | 99.6 | 99.2 | 70.0-130 | | | 0.433 | 25 |
| Acetone | 3.75 | 3.69 | 3.64 | 98.5 | 97.1 | 70.0-130 | | | 1.37 | 25 |
| 2-Propanol | 3.75 | 3.78 | 3.77 | 101 | 100 | 66.0-150 | | | 0.507 | 25 |
| Carbon disulfide | 3.75 | 3.77 | 3.74 | 100 | 99.8 | 70.0-130 | | | 0.594 | 25 |
| Methylene Chloride | 3.75 | 3.56 | 3.55 | 94.9 | 94.6 | 70.0-130 | | | 0.369 | 25 |
| MTBE | 3.75 | 3.77 | 3.77 | 100 | 100 | 70.0-130 | | | 0.0259 | 25 |
| trans-1,2-Dichloroethene | 3.75 | 3.73 | 3.70 | 99.6 | 98.8 | 70.0-130 | | | 0.811 | 25 |
| n-Hexane | 3.75 | 3.67 | 3.63 | 97.8 | 96.9 | 70.0-130 | | | 0.937 | 25 |
| Vinyl acetate | 3.75 | 3.98 | 3.95 | 106 | 105 | 70.0-130 | | | 0.828 | 25 |
| Methyl Ethyl Ketone | 3.75 | 3.91 | 3.89 | 104 | 104 | 70.0-130 | | | 0.689 | 25 |
| cis-1,2-Dichloroethene | 3.75 | 3.75 | 3.75 | 99.9 | 99.9 | 70.0-130 | | | 0.0511 | 25 |
| Chloroform | 3.75 | 3.72 | 3.70 | 99.3 | 98.6 | 70.0-130 | | | 0.661 | 25 |
| Cyclohexane | 3.75 | 3.77 | 3.76 | 101 | 100 | 70.0-130 | | | 0.324 | 25 |
| 1,1,1-Trichloroethane | 3.75 | 3.72 | 3.73 | 99.2 | 99.3 | 70.0-130 | | | 0.178 | 25 |
| Carbon tetrachloride | 3.75 | 3.73 | 3.73 | 99.4 | 99.5 | 70.0-130 | | | 0.0906 | 25 |
| Benzene | 3.75 | 3.75 | 3.75 | 99.9 | 99.9 | 70.0-130 | | | 0.0447 | 25 |
| 1,2-Dichloroethane | 3.75 | 3.70 | 3.69 | 98.5 | 98.4 | 70.0-130 | | | 0.115 | 25 |
| Heptane | 3.75 | 3.75 | 3.74 | 100 | 99.6 | 70.0-130 | | | 0.354 | 25 |
| Trichloroethylene | 3.75 | 3.79 | 3.79 | 101 | 101 | 70.0-130 | | | 0.0480 | 25 |
| 1,2-Dichloropropane | 3.75 | 3.74 | 3.74 | 99.8 | 99.7 | 70.0-130 | | | 0.105 | 25 |
| 1,4-Dioxane | 3.75 | 3.87 | 3.89 | 103 | 104 | 70.0-152 | | | 0.470 | 25 |
| Bromodichloromethane | 3.75 | 3.78 | 3.77 | 101 | 100 | 70.0-130 | | | 0.248 | 25 |
| cis-1,3-Dichloropropene | 3.75 | 3.84 | 3.85 | 102 | 103 | 70.0-130 | | | 0.335 | 25 |
| 4-Methyl-2-pentanone (MIBK) | 3.75 | 3.84 | 3.84 | 102 | 102 | 70.0-142 | | | 0.122 | 25 |
| Toluene | 3.75 | 3.84 | 3.83 | 102 | 102 | 70.0-130 | | | 0.405 | 25 |
| trans-1,3-Dichloropropene | 3.75 | 3.90 | 3.90 | 104 | 104 | 70.0-130 | | | 0.0408 | 25 |
| 1,1,2-Trichloroethane | 3.75 | 3.76 | 3.75 | 100 | 100 | 70.0-130 | | | 0.170 | 25 |
| Tetrachloroethylene | 3.75 | 3.89 | 3.89 | 104 | 104 | 70.0-130 | | | 0.0512 | 25 |
| Methyl Butyl Ketone | 3.75 | 4.00 | 3.98 | 107 | 106 | 70.0-150 | | | 0.481 | 25 |
| Dibromochloromethane | 3.75 | 3.85 | 3.85 | 103 | 103 | 70.0-130 | | | 0.191 | 25 |
| 1,2-Dibromoethane | 3.75 | 3.80 | 3.78 | 101 | 101 | 70.0-130 | | | 0.434 | 25 |
| Chlorobenzene | 3.75 | 3.73 | 3.73 | 99.4 | 99.4 | 70.0-130 | | | 0.0418 | 25 |

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

(LCS) R3288947-1 02/26/18 09:10 • (LCSD) R3288947-2 02/26/18 09:54

| Analyte | Spike Amount ppbv | LCS Result ppbv | LCSD Result ppbv | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | 3.75 | 3.92 | 3.89 | 105 | 104 | 70.0-130 | | | 0.937 | 25 |
| m&p-Xylene | 7.50 | 7.73 | 7.70 | 103 | 103 | 70.0-130 | | | 0.450 | 25 |
| o-Xylene | 3.75 | 3.93 | 3.91 | 105 | 104 | 70.0-130 | | | 0.620 | 25 |
| Styrene | 3.75 | 4.10 | 4.05 | 109 | 108 | 70.0-130 | | | 1.12 | 25 |
| Bromoform | 3.75 | 4.13 | 4.12 | 110 | 110 | 70.0-130 | | | 0.224 | 25 |
| 1,1,2,2-Tetrachloroethane | 3.75 | 3.88 | 3.87 | 104 | 103 | 70.0-130 | | | 0.354 | 25 |
| 4-Ethyltoluene | 3.75 | 4.05 | 4.03 | 108 | 108 | 70.0-130 | | | 0.402 | 25 |
| 1,3,5-Trimethylbenzene | 3.75 | 4.03 | 4.01 | 108 | 107 | 70.0-130 | | | 0.486 | 25 |
| 1,2,4-Trimethylbenzene | 3.75 | 4.07 | 4.04 | 109 | 108 | 70.0-130 | | | 0.684 | 25 |
| 1,3-Dichlorobenzene | 3.75 | 4.15 | 4.14 | 111 | 110 | 70.0-130 | | | 0.322 | 25 |
| 1,4-Dichlorobenzene | 3.75 | 4.23 | 4.20 | 113 | 112 | 70.0-130 | | | 0.774 | 25 |
| Benzyl Chloride | 3.75 | 4.37 | 4.32 | 117 | 115 | 70.0-144 | | | 1.24 | 25 |
| 1,2-Dichlorobenzene | 3.75 | 4.09 | 4.08 | 109 | 109 | 70.0-130 | | | 0.0671 | 25 |
| 1,2,4-Trichlorobenzene | 3.75 | 4.34 | 4.27 | 116 | 114 | 70.0-155 | | | 1.83 | 25 |
| Hexachloro-1,3-butadiene | 3.75 | 4.24 | 4.28 | 113 | 114 | 70.0-145 | | | 1.06 | 25 |
| Naphthalene | 3.75 | 4.35 | 4.21 | 116 | 112 | 70.0-155 | | | 3.23 | 25 |
| TPH (GC/MS) Low Fraction | 176 | 190 | 189 | 108 | 107 | 70.0-130 | | | 0.778 | 25 |
| Allyl Chloride | 3.75 | 3.76 | 3.74 | 100 | 99.6 | 70.0-130 | | | 0.558 | 25 |
| 2-Chlorotoluene | 3.75 | 3.97 | 3.94 | 106 | 105 | 70.0-130 | | | 0.617 | 25 |
| Methyl Methacrylate | 3.75 | 3.81 | 3.79 | 102 | 101 | 70.0-130 | | | 0.415 | 25 |
| Tetrahydrofuran | 3.75 | 3.71 | 3.71 | 98.9 | 98.9 | 70.0-140 | | | 0.0155 | 25 |
| 2,2,4-Trimethylpentane | 3.75 | 3.73 | 3.71 | 99.4 | 99.0 | 70.0-130 | | | 0.419 | 25 |
| Vinyl Bromide | 3.75 | 3.80 | 3.78 | 101 | 101 | 70.0-130 | | | 0.687 | 25 |
| Isopropylbenzene | 3.75 | 3.97 | 3.94 | 106 | 105 | 70.0-130 | | | 0.825 | 25 |
| *(S) 1,4-Bromofluorobenzene* | | | | *99.3* | *99.1* | *60.0-140* | | | | |

## Method Blank (MB)

(MB) R3288976-3 02/26/18 10:26

| Analyte | MB Result ppbv | MB Qualifier | MB MDL ppbv | MB RDL ppbv |
|---|---|---|---|---|
| Acetone | U | | 0.0569 | 1.25 |
| Allyl Chloride | U | | 0.0546 | 0.200 |
| Benzene | U | | 0.0460 | 0.200 |
| Benzyl Chloride | U | | 0.0598 | 0.200 |
| Bromodichloromethane | U | | 0.0436 | 0.200 |
| Bromoform | U | | 0.0786 | 0.600 |
| Bromomethane | U | | 0.0609 | 0.200 |
| 1,3-Butadiene | 0.0616 | J | 0.0563 | 2.00 |
| Carbon disulfide | U | | 0.0544 | 0.200 |
| Carbon tetrachloride | U | | 0.0585 | 0.200 |
| Chlorobenzene | U | | 0.0601 | 0.200 |
| Chloroethane | U | | 0.0489 | 0.200 |
| Chloroform | U | | 0.0574 | 0.200 |
| Chloromethane | U | | 0.0544 | 0.200 |
| 2-Chlorotoluene | U | | 0.0605 | 0.200 |
| Cyclohexane | U | | 0.0534 | 0.200 |
| Dibromochloromethane | U | | 0.0494 | 0.200 |
| 1,2-Dibromoethane | U | | 0.0185 | 0.200 |
| 1,2-Dichlorobenzene | U | | 0.0603 | 0.200 |
| 1,3-Dichlorobenzene | U | | 0.0597 | 0.200 |
| 1,4-Dichlorobenzene | U | | 0.0557 | 0.200 |
| 1,2-Dichloroethane | U | | 0.0616 | 0.200 |
| 1,1-Dichloroethane | U | | 0.0514 | 0.200 |
| 1,1-Dichloroethene | U | | 0.0490 | 0.200 |
| cis-1,2-Dichloroethene | U | | 0.0389 | 0.200 |
| trans-1,2-Dichloroethene | U | | 0.0464 | 0.200 |
| 1,2-Dichloropropane | U | | 0.0599 | 0.200 |
| cis-1,3-Dichloropropene | 0.0658 | J | 0.0588 | 0.200 |
| trans-1,3-Dichloropropene | U | | 0.0435 | 0.200 |
| 1,4-Dioxane | U | | 0.0554 | 0.200 |
| Ethylbenzene | U | | 0.0506 | 0.200 |
| 4-Ethyltoluene | U | | 0.0666 | 0.200 |
| Trichlorofluoromethane | U | | 0.0673 | 0.200 |
| Dichlorodifluoromethane | U | | 0.0601 | 0.200 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.0687 | 0.200 |
| 1,2-Dichlorotetrafluoroethane | U | | 0.0458 | 0.200 |
| Heptane | U | | 0.0626 | 0.200 |
| Hexachloro-1,3-butadiene | U | | 0.0656 | 0.630 |
| n-Hexane | U | | 0.0457 | 0.200 |
| Isopropylbenzene | U | | 0.0563 | 0.200 |

## Method Blank (MB)

(MB) R3288976-3 02/26/18 10:26

| Analyte | MB Result ppbv | MB Qualifier | MB MDL ppbv | MB RDL ppbv |
|---|---|---|---|---|
| Methylene Chloride | U | | 0.0465 | 0.200 |
| Methyl Butyl Ketone | U | | 0.0682 | 1.25 |
| 2-Butanone (MEK) | U | | 0.0493 | 1.25 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.0650 | 1.25 |
| Methyl Methacrylate | U | | 0.0773 | 0.200 |
| MTBE | U | | 0.0505 | 0.200 |
| Naphthalene | U | | 0.154 | 0.630 |
| 2-Propanol | 0.113 | J | 0.0882 | 1.25 |
| Propene | U | | 0.0932 | 0.400 |
| Styrene | U | | 0.0465 | 0.200 |
| 1,1,2,2-Tetrachloroethane | U | | 0.0576 | 0.200 |
| Tetrachloroethylene | U | | 0.0497 | 0.200 |
| Tetrahydrofuran | U | | 0.0508 | 0.200 |
| Toluene | U | | 0.0499 | 0.200 |
| 1,2,4-Trichlorobenzene | U | | 0.148 | 0.630 |
| 1,1,1-Trichloroethane | U | | 0.0665 | 0.200 |
| 1,1,2-Trichloroethane | U | | 0.0287 | 0.200 |
| Trichloroethylene | U | | 0.0545 | 0.200 |
| 1,2,4-Trimethylbenzene | U | | 0.0483 | 0.200 |
| 1,3,5-Trimethylbenzene | U | | 0.0631 | 0.200 |
| 2,2,4-Trimethylpentane | U | | 0.0456 | 0.200 |
| Vinyl chloride | U | | 0.0457 | 0.200 |
| Vinyl Bromide | U | | 0.0727 | 0.200 |
| Vinyl acetate | U | | 0.0639 | 0.200 |
| m&p-Xylene | U | | 0.0946 | 0.400 |
| o-Xylene | U | | 0.0633 | 0.200 |
| Ethanol | U | | 0.0832 | 0.630 |
| TPH (GC/MS) Low Fraction | 15.7 | J | 6.91 | 50.0 |
| *(S) 1,4-Bromofluorobenzene* | *96.5* | | | *60.0-140* |

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

(LCS) R3288976-1 02/26/18 09:04 • (LCSD) R3288976-2 02/26/18 09:44

| 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 | 4.23 | 4.19 | 113 | 112 | 52.0-158 | | | 0.994 | 25 |
| Propene | 3.75 | 4.41 | 4.47 | 118 | 119 | 54.0-155 | | | 1.32 | 25 |
| Dichlorodifluoromethane | 3.75 | 4.57 | 4.59 | 122 | 122 | 69.0-143 | | | 0.287 | 25 |
| 1,2-Dichlorotetrafluoroethane | 3.75 | 4.52 | 4.51 | 121 | 120 | 70.0-130 | | | 0.191 | 25 |

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

(LCS) R3288976-1 02/26/18 09:04 • (LCSD) R3288976-2 02/26/18 09:44

| Analyte | Spike Amount ppbv | LCS Result ppbv | LCSD Result ppbv | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | 3.75 | 4.58 | 4.59 | 122 | 122 | 70.0-130 | | | 0.229 | 25 |
| Vinyl chloride | 3.75 | 4.60 | 4.43 | 123 | 118 | 70.0-130 | | | 3.72 | 25 |
| 1,3-Butadiene | 3.75 | 4.45 | 4.15 | 119 | 111 | 70.0-130 | | | 6.92 | 25 |
| Bromomethane | 3.75 | 4.57 | 4.47 | 122 | 119 | 70.0-130 | | | 2.17 | 25 |
| Chloroethane | 3.75 | 4.65 | 4.31 | 124 | 115 | 70.0-130 | | | 7.47 | 25 |
| Trichlorofluoromethane | 3.75 | 4.45 | 4.41 | 119 | 118 | 70.0-130 | | | 0.900 | 25 |
| 1,1,2-Trichlorotrifluoroethane | 3.75 | 4.36 | 4.45 | 116 | 119 | 70.0-130 | | | 2.05 | 25 |
| 1,1-Dichloroethene | 3.75 | 4.36 | 4.38 | 116 | 117 | 70.0-130 | | | 0.479 | 25 |
| 1,1-Dichloroethane | 3.75 | 4.35 | 4.40 | 116 | 117 | 70.0-130 | | | 1.23 | 25 |
| Acetone | 3.75 | 4.35 | 4.51 | 116 | 120 | 70.0-130 | | | 3.66 | 25 |
| 2-Propanol | 3.75 | 4.30 | 4.30 | 115 | 115 | 66.0-150 | | | 0.197 | 25 |
| Carbon disulfide | 3.75 | 4.43 | 4.48 | 118 | 119 | 70.0-130 | | | 1.06 | 25 |
| Methylene Chloride | 3.75 | 4.22 | 4.24 | 113 | 113 | 70.0-130 | | | 0.482 | 25 |
| MTBE | 3.75 | 4.29 | 4.38 | 114 | 117 | 70.0-130 | | | 2.17 | 25 |
| trans-1,2-Dichloroethene | 3.75 | 4.35 | 4.37 | 116 | 117 | 70.0-130 | | | 0.504 | 25 |
| n-Hexane | 3.75 | 4.39 | 4.49 | 117 | 120 | 70.0-130 | | | 2.17 | 25 |
| Vinyl acetate | 3.75 | 4.34 | 4.41 | 116 | 118 | 70.0-130 | | | 1.63 | 25 |
| Methyl Ethyl Ketone | 3.75 | 4.44 | 4.50 | 118 | 120 | 70.0-130 | | | 1.44 | 25 |
| cis-1,2-Dichloroethene | 3.75 | 4.27 | 4.33 | 114 | 116 | 70.0-130 | | | 1.52 | 25 |
| Chloroform | 3.75 | 4.34 | 4.36 | 116 | 116 | 70.0-130 | | | 0.376 | 25 |
| Cyclohexane | 3.75 | 4.41 | 4.49 | 118 | 120 | 70.0-130 | | | 1.83 | 25 |
| 1,1,1-Trichloroethane | 3.75 | 4.33 | 4.42 | 116 | 118 | 70.0-130 | | | 2.13 | 25 |
| Carbon tetrachloride | 3.75 | 4.36 | 4.47 | 116 | 119 | 70.0-130 | | | 2.51 | 25 |
| Benzene | 3.75 | 4.38 | 4.43 | 117 | 118 | 70.0-130 | | | 1.15 | 25 |
| 1,2-Dichloroethane | 3.75 | 4.32 | 4.36 | 115 | 116 | 70.0-130 | | | 0.910 | 25 |
| Heptane | 3.75 | 4.49 | 4.47 | 120 | 119 | 70.0-130 | | | 0.552 | 25 |
| Trichloroethylene | 3.75 | 4.36 | 4.42 | 116 | 118 | 70.0-130 | | | 1.36 | 25 |
| 1,2-Dichloropropane | 3.75 | 4.38 | 4.37 | 117 | 116 | 70.0-130 | | | 0.222 | 25 |
| 1,4-Dioxane | 3.75 | 4.48 | 4.57 | 120 | 122 | 70.0-152 | | | 1.86 | 25 |
| Bromodichloromethane | 3.75 | 4.35 | 4.40 | 116 | 117 | 70.0-130 | | | 1.03 | 25 |
| cis-1,3-Dichloropropene | 3.75 | 4.52 | 4.48 | 121 | 120 | 70.0-130 | | | 0.832 | 25 |
| 4-Methyl-2-pentanone (MIBK) | 3.75 | 4.47 | 4.50 | 119 | 120 | 70.0-142 | | | 0.662 | 25 |
| Toluene | 3.75 | 4.47 | 4.51 | 119 | 120 | 70.0-130 | | | 1.07 | 25 |
| trans-1,3-Dichloropropene | 3.75 | 4.42 | 4.43 | 118 | 118 | 70.0-130 | | | 0.169 | 25 |
| 1,1,2-Trichloroethane | 3.75 | 4.39 | 4.46 | 117 | 119 | 70.0-130 | | | 1.44 | 25 |
| Tetrachloroethylene | 3.75 | 4.42 | 4.45 | 118 | 119 | 70.0-130 | | | 0.793 | 25 |
| Methyl Butyl Ketone | 3.75 | 4.47 | 4.58 | 119 | 122 | 70.0-150 | | | 2.41 | 25 |
| Dibromochloromethane | 3.75 | 4.41 | 4.50 | 118 | 120 | 70.0-130 | | | 2.00 | 25 |
| 1,2-Dibromoethane | 3.75 | 4.40 | 4.50 | 117 | 120 | 70.0-130 | | | 2.11 | 25 |
| Chlorobenzene | 3.75 | 4.50 | 4.57 | 120 | 122 | 70.0-130 | | | 1.66 | 25 |

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

(LCS) R3288976-1 02/26/18 09:04 • (LCSD) R3288976-2 02/26/18 09:44

| Analyte | Spike Amount ppbv | LCS Result ppbv | LCSD Result ppbv | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | 3.75 | 4.69 | 4.75 | 125 | 127 | 70.0-130 | | | 1.11 | 25 |
| m&p-Xylene | 7.50 | 9.37 | 9.49 | 125 | 126 | 70.0-130 | | | 1.24 | 25 |
| o-Xylene | 3.75 | 4.62 | 4.68 | 123 | 125 | 70.0-130 | | | 1.39 | 25 |
| Styrene | 3.75 | 4.59 | 4.68 | 122 | 125 | 70.0-130 | | | 1.95 | 25 |
| Bromoform | 3.75 | 4.52 | 4.60 | 121 | 123 | 70.0-130 | | | 1.80 | 25 |
| 1,1,2,2-Tetrachloroethane | 3.75 | 4.45 | 4.57 | 119 | 122 | 70.0-130 | | | 2.79 | 25 |
| 4-Ethyltoluene | 3.75 | 4.56 | 4.75 | 121 | 127 | 70.0-130 | | | 4.13 | 25 |
| 1,3,5-Trimethylbenzene | 3.75 | 4.56 | 4.77 | 122 | 127 | 70.0-130 | | | 4.33 | 25 |
| 1,2,4-Trimethylbenzene | 3.75 | 4.54 | 4.75 | 121 | 127 | 70.0-130 | | | 4.48 | 25 |
| 1,3-Dichlorobenzene | 3.75 | 4.58 | 4.81 | 122 | 128 | 70.0-130 | | | 4.87 | 25 |
| 1,4-Dichlorobenzene | 3.75 | 4.80 | 5.01 | 128 | 134 | 70.0-130 | | J4 | 4.35 | 25 |
| Benzyl Chloride | 3.75 | 4.58 | 4.82 | 122 | 128 | 70.0-144 | | | 4.98 | 25 |
| 1,2-Dichlorobenzene | 3.75 | 4.51 | 4.72 | 120 | 126 | 70.0-130 | | | 4.62 | 25 |
| 1,2,4-Trichlorobenzene | 3.75 | 4.75 | 5.05 | 127 | 135 | 70.0-155 | | | 6.21 | 25 |
| Hexachloro-1,3-butadiene | 3.75 | 4.58 | 4.86 | 122 | 130 | 70.0-145 | | | 5.87 | 25 |
| Naphthalene | 3.75 | 4.68 | 4.98 | 125 | 133 | 70.0-155 | | | 6.20 | 25 |
| TPH (GC/MS) Low Fraction | 176 | 203 | 206 | 115 | 117 | 70.0-130 | | | 1.59 | 25 |
| Allyl Chloride | 3.75 | 4.27 | 4.28 | 114 | 114 | 70.0-130 | | | 0.249 | 25 |
| 2-Chlorotoluene | 3.75 | 4.63 | 4.86 | 123 | 130 | 70.0-130 | | | 4.78 | 25 |
| Methyl Methacrylate | 3.75 | 4.36 | 4.38 | 116 | 117 | 70.0-130 | | | 0.570 | 25 |
| Tetrahydrofuran | 3.75 | 4.25 | 4.27 | 113 | 114 | 70.0-140 | | | 0.569 | 25 |
| 2,2,4-Trimethylpentane | 3.75 | 4.50 | 4.58 | 120 | 122 | 70.0-130 | | | 1.71 | 25 |
| Vinyl Bromide | 3.75 | 4.47 | 4.50 | 119 | 120 | 70.0-130 | | | 0.696 | 25 |
| Isopropylbenzene | 3.75 | 4.64 | 4.79 | 124 | 128 | 70.0-130 | | | 3.21 | 25 |
| *(S) 1,4-Bromofluorobenzene* | | | | *97.8* | *100* | *60.0-140* | | | | |

## Method Blank (MB)

(MB) R3289194-3 02/27/18 10:28

| Analyte | MB Result ppbv | MB Qualifier | MB MDL ppbv | MB RDL ppbv |
|---|---|---|---|---|
| Ethanol | U | | 0.0832 | 0.630 |
| *(S) 1,4-Bromofluorobenzene* | *96.8* | | | *60.0-140* |

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

(LCS) R3289194-1 02/27/18 08:59 • (LCSD) R3289194-2 02/27/18 09:43

| 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 | 3.99 | 3.85 | 106 | 103 | 52.0-158 | | | 3.67 | 25 |
| *(S) 1,4-Bromofluorobenzene* | | | | *98.1* | *98.8* | *60.0-140* | | | | |

## Method Blank (MB)

(MB) R3289536-3 02/28/18 10:35

| Analyte | MB Result ppbv | MB Qualifier | MB MDL ppbv | MB RDL ppbv |
|---|---|---|---|---|
| Acetone | 0.0629 | J | 0.0569 | 1.25 |
| Allyl Chloride | U | | 0.0546 | 0.200 |
| Benzene | U | | 0.0460 | 0.200 |
| Benzyl Chloride | U | | 0.0598 | 0.200 |
| Bromodichloromethane | U | | 0.0436 | 0.200 |
| Bromoform | U | | 0.0786 | 0.600 |
| Bromomethane | U | | 0.0609 | 0.200 |
| 1,3-Butadiene | U | | 0.0563 | 2.00 |
| Carbon disulfide | U | | 0.0544 | 0.200 |
| Carbon tetrachloride | U | | 0.0585 | 0.200 |
| Chlorobenzene | U | | 0.0601 | 0.200 |
| Chloroethane | U | | 0.0489 | 0.200 |
| Chloroform | U | | 0.0574 | 0.200 |
| Chloromethane | U | | 0.0544 | 0.200 |
| 2-Chlorotoluene | U | | 0.0605 | 0.200 |
| Cyclohexane | U | | 0.0534 | 0.200 |
| Dibromochloromethane | U | | 0.0494 | 0.200 |
| 1,2-Dibromoethane | U | | 0.0185 | 0.200 |
| 1,2-Dichlorobenzene | U | | 0.0603 | 0.200 |
| 1,3-Dichlorobenzene | U | | 0.0597 | 0.200 |
| 1,4-Dichlorobenzene | U | | 0.0557 | 0.200 |
| 1,2-Dichloroethane | U | | 0.0616 | 0.200 |
| 1,1-Dichloroethane | U | | 0.0514 | 0.200 |
| 1,1-Dichloroethene | U | | 0.0490 | 0.200 |
| cis-1,2-Dichloroethene | U | | 0.0389 | 0.200 |
| trans-1,2-Dichloroethene | U | | 0.0464 | 0.200 |
| 1,2-Dichloropropane | U | | 0.0599 | 0.200 |
| cis-1,3-Dichloropropene | U | | 0.0588 | 0.200 |
| trans-1,3-Dichloropropene | U | | 0.0435 | 0.200 |
| 1,4-Dioxane | U | | 0.0554 | 0.200 |
| Ethylbenzene | U | | 0.0506 | 0.200 |
| 4-Ethyltoluene | U | | 0.0666 | 0.200 |
| Trichlorofluoromethane | U | | 0.0673 | 0.200 |
| Dichlorodifluoromethane | U | | 0.0601 | 0.200 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.0687 | 0.200 |
| 1,2-Dichlorotetrafluoroethane | U | | 0.0458 | 0.200 |
| Heptane | U | | 0.0626 | 0.200 |
| Hexachloro-1,3-butadiene | U | | 0.0656 | 0.630 |
| n-Hexane | U | | 0.0457 | 0.200 |
| Isopropylbenzene | U | | 0.0563 | 0.200 |

## Method Blank (MB)

(MB) R3289536-3 02/28/18 10:35

| Analyte | MB Result ppbv | MB Qualifier | MB MDL ppbv | MB RDL ppbv |
|---|---|---|---|---|
| Methylene Chloride | U | | 0.0465 | 0.200 |
| Methyl Butyl Ketone | U | | 0.0682 | 1.25 |
| 2-Butanone (MEK) | U | | 0.0493 | 1.25 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.0650 | 1.25 |
| Methyl Methacrylate | U | | 0.0773 | 0.200 |
| MTBE | U | | 0.0505 | 0.200 |
| Naphthalene | U | | 0.154 | 0.630 |
| 2-Propanol | U | | 0.0882 | 1.25 |
| Propene | U | | 0.0932 | 0.400 |
| Styrene | U | | 0.0465 | 0.200 |
| 1,1,2,2-Tetrachloroethane | U | | 0.0576 | 0.200 |
| Tetrachloroethylene | U | | 0.0497 | 0.200 |
| Tetrahydrofuran | U | | 0.0508 | 0.200 |
| Toluene | U | | 0.0499 | 0.200 |
| 1,2,4-Trichlorobenzene | U | | 0.148 | 0.630 |
| 1,1,1-Trichloroethane | U | | 0.0665 | 0.200 |
| 1,1,2-Trichloroethane | U | | 0.0287 | 0.200 |
| Trichloroethylene | U | | 0.0545 | 0.200 |
| 1,2,4-Trimethylbenzene | U | | 0.0483 | 0.200 |
| 1,3,5-Trimethylbenzene | U | | 0.0631 | 0.200 |
| 2,2,4-Trimethylpentane | U | | 0.0456 | 0.200 |
| Vinyl chloride | U | | 0.0457 | 0.200 |
| Vinyl Bromide | U | | 0.0727 | 0.200 |
| Vinyl acetate | U | | 0.0639 | 0.200 |
| m&p-Xylene | U | | 0.0946 | 0.400 |
| o-Xylene | U | | 0.0633 | 0.200 |
| Ethanol | U | | 0.0832 | 0.630 |
| TPH (GC/MS) Low Fraction | U | | 6.91 | 50.0 |
| *(S) 1,4-Bromofluorobenzene* | *96.0* | | | *60.0-140* |

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

(LCS) R3289536-1 02/28/18 09:03 • (LCSD) R3289536-2 02/28/18 09:49

| 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 | 3.57 | 3.47 | 95.2 | 92.6 | 52.0-158 | | | 2.79 | 25 |
| Propene | 3.75 | 3.74 | 3.66 | 99.8 | 97.6 | 54.0-155 | | | 2.14 | 25 |
| Dichlorodifluoromethane | 3.75 | 3.46 | 3.48 | 92.4 | 92.8 | 69.0-143 | | | 0.443 | 25 |
| 1,2-Dichlorotetrafluoroethane | 3.75 | 3.78 | 3.79 | 101 | 101 | 70.0-130 | | | 0.127 | 25 |

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

(LCS) R3289536-1 02/28/18 09:03 • (LCSD) R3289536-2 02/28/18 09:49

| Analyte | Spike Amount ppbv | LCS Result ppbv | LCSD Result ppbv | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | 3.75 | 3.61 | 3.63 | 96.2 | 96.7 | 70.0-130 | | | 0.609 | 25 |
| Vinyl chloride | 3.75 | 3.82 | 3.78 | 102 | 101 | 70.0-130 | | | 0.910 | 25 |
| 1,3-Butadiene | 3.75 | 3.97 | 4.00 | 106 | 107 | 70.0-130 | | | 0.711 | 25 |
| Bromomethane | 3.75 | 3.40 | 4.18 | 90.7 | 111 | 70.0-130 | | | 20.5 | 25 |
| Chloroethane | 3.75 | 3.73 | 3.79 | 99.5 | 101 | 70.0-130 | | | 1.60 | 25 |
| Trichlorofluoromethane | 3.75 | 3.76 | 3.79 | 100 | 101 | 70.0-130 | | | 0.855 | 25 |
| 1,1,2-Trichlorotrifluoroethane | 3.75 | 3.82 | 3.84 | 102 | 102 | 70.0-130 | | | 0.438 | 25 |
| 1,1-Dichloroethene | 3.75 | 3.77 | 3.79 | 101 | 101 | 70.0-130 | | | 0.629 | 25 |
| 1,1-Dichloroethane | 3.75 | 3.81 | 3.81 | 102 | 102 | 70.0-130 | | | 0.0387 | 25 |
| Acetone | 3.75 | 3.78 | 3.70 | 101 | 98.7 | 70.0-130 | | | 2.00 | 25 |
| 2-Propanol | 3.75 | 3.89 | 3.82 | 104 | 102 | 66.0-150 | | | 1.79 | 25 |
| Carbon disulfide | 3.75 | 3.80 | 3.82 | 101 | 102 | 70.0-130 | | | 0.341 | 25 |
| Methylene Chloride | 3.75 | 3.67 | 3.67 | 97.9 | 97.8 | 70.0-130 | | | 0.136 | 25 |
| MTBE | 3.75 | 3.83 | 3.86 | 102 | 103 | 70.0-130 | | | 0.651 | 25 |
| trans-1,2-Dichloroethene | 3.75 | 3.81 | 3.80 | 102 | 101 | 70.0-130 | | | 0.265 | 25 |
| n-Hexane | 3.75 | 3.72 | 3.77 | 99.3 | 100 | 70.0-130 | | | 1.18 | 25 |
| Vinyl acetate | 3.75 | 4.11 | 4.06 | 110 | 108 | 70.0-130 | | | 1.21 | 25 |
| Methyl Ethyl Ketone | 3.75 | 3.98 | 3.98 | 106 | 106 | 70.0-130 | | | 0.0584 | 25 |
| cis-1,2-Dichloroethene | 3.75 | 3.85 | 3.85 | 103 | 103 | 70.0-130 | | | 0.159 | 25 |
| Chloroform | 3.75 | 3.78 | 3.79 | 101 | 101 | 70.0-130 | | | 0.454 | 25 |
| Cyclohexane | 3.75 | 3.83 | 3.86 | 102 | 103 | 70.0-130 | | | 0.775 | 25 |
| 1,1,1-Trichloroethane | 3.75 | 3.78 | 3.79 | 101 | 101 | 70.0-130 | | | 0.407 | 25 |
| Carbon tetrachloride | 3.75 | 3.76 | 3.80 | 100 | 101 | 70.0-130 | | | 0.933 | 25 |
| Benzene | 3.75 | 3.83 | 3.83 | 102 | 102 | 70.0-130 | | | 0.0247 | 25 |
| 1,2-Dichloroethane | 3.75 | 3.80 | 3.78 | 101 | 101 | 70.0-130 | | | 0.446 | 25 |
| Heptane | 3.75 | 3.84 | 3.85 | 102 | 103 | 70.0-130 | | | 0.134 | 25 |
| Trichloroethylene | 3.75 | 3.85 | 3.85 | 103 | 103 | 70.0-130 | | | 0.0219 | 25 |
| 1,2-Dichloropropane | 3.75 | 3.86 | 3.83 | 103 | 102 | 70.0-130 | | | 0.765 | 25 |
| 1,4-Dioxane | 3.75 | 3.99 | 3.84 | 106 | 102 | 70.0-152 | | | 3.91 | 25 |
| Bromodichloromethane | 3.75 | 3.85 | 3.83 | 103 | 102 | 70.0-130 | | | 0.624 | 25 |
| cis-1,3-Dichloropropene | 3.75 | 3.93 | 3.91 | 105 | 104 | 70.0-130 | | | 0.582 | 25 |
| 4-Methyl-2-pentanone (MIBK) | 3.75 | 4.01 | 3.96 | 107 | 106 | 70.0-142 | | | 1.30 | 25 |
| Toluene | 3.75 | 3.91 | 3.91 | 104 | 104 | 70.0-130 | | | 0.00966 | 25 |
| trans-1,3-Dichloropropene | 3.75 | 3.99 | 3.96 | 106 | 106 | 70.0-130 | | | 0.630 | 25 |
| 1,1,2-Trichloroethane | 3.75 | 3.85 | 3.82 | 103 | 102 | 70.0-130 | | | 0.766 | 25 |
| Tetrachloroethylene | 3.75 | 3.93 | 3.94 | 105 | 105 | 70.0-130 | | | 0.244 | 25 |
| Methyl Butyl Ketone | 3.75 | 4.18 | 4.07 | 112 | 108 | 70.0-150 | | | 2.82 | 25 |
| Dibromochloromethane | 3.75 | 3.96 | 3.95 | 106 | 105 | 70.0-130 | | | 0.215 | 25 |
| 1,2-Dibromoethane | 3.75 | 3.92 | 3.90 | 105 | 104 | 70.0-130 | | | 0.530 | 25 |
| Chlorobenzene | 3.75 | 3.85 | 3.83 | 103 | 102 | 70.0-130 | | | 0.667 | 25 |

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

(LCS) R3289536-1 02/28/18 09:03 • (LCSD) R3289536-2 02/28/18 09:49

| Analyte | Spike Amount ppbv | LCS Result ppbv | LCSD Result ppbv | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | 3.75 | 4.01 | 4.00 | 107 | 107 | 70.0-130 | | | 0.159 | 25 |
| m&p-Xylene | 7.50 | 7.89 | 7.88 | 105 | 105 | 70.0-130 | | | 0.0797 | 25 |
| o-Xylene | 3.75 | 4.00 | 4.02 | 107 | 107 | 70.0-130 | | | 0.451 | 25 |
| Styrene | 3.75 | 4.17 | 4.17 | 111 | 111 | 70.0-130 | | | 0.0149 | 25 |
| Bromoform | 3.75 | 4.19 | 4.19 | 112 | 112 | 70.0-130 | | | 0.0135 | 25 |
| 1,1,2,2-Tetrachloroethane | 3.75 | 3.98 | 3.97 | 106 | 106 | 70.0-130 | | | 0.273 | 25 |
| 4-Ethyltoluene | 3.75 | 4.12 | 4.14 | 110 | 110 | 70.0-130 | | | 0.500 | 25 |
| 1,3,5-Trimethylbenzene | 3.75 | 4.11 | 4.11 | 110 | 110 | 70.0-130 | | | 0.0567 | 25 |
| 1,2,4-Trimethylbenzene | 3.75 | 4.13 | 4.12 | 110 | 110 | 70.0-130 | | | 0.335 | 25 |
| 1,3-Dichlorobenzene | 3.75 | 4.21 | 4.23 | 112 | 113 | 70.0-130 | | | 0.298 | 25 |
| 1,4-Dichlorobenzene | 3.75 | 4.29 | 4.31 | 114 | 115 | 70.0-130 | | | 0.396 | 25 |
| Benzyl Chloride | 3.75 | 4.40 | 4.41 | 117 | 118 | 70.0-144 | | | 0.169 | 25 |
| 1,2-Dichlorobenzene | 3.75 | 4.14 | 4.14 | 110 | 111 | 70.0-130 | | | 0.0313 | 25 |
| 1,2,4-Trichlorobenzene | 3.75 | 4.28 | 4.32 | 114 | 115 | 70.0-155 | | | 0.934 | 25 |
| Hexachloro-1,3-butadiene | 3.75 | 4.22 | 4.28 | 112 | 114 | 70.0-145 | | | 1.48 | 25 |
| Naphthalene | 3.75 | 4.29 | 4.29 | 114 | 114 | 70.0-155 | | | 0.0577 | 25 |
| TPH (GC/MS) Low Fraction | 176 | 192 | 193 | 109 | 109 | 70.0-130 | | | 0.331 | 25 |
| Allyl Chloride | 3.75 | 3.84 | 3.82 | 102 | 102 | 70.0-130 | | | 0.465 | 25 |
| 2-Chlorotoluene | 3.75 | 4.04 | 4.04 | 108 | 108 | 70.0-130 | | | 0.00735 | 25 |
| Methyl Methacrylate | 3.75 | 3.97 | 3.93 | 106 | 105 | 70.0-130 | | | 1.01 | 25 |
| Tetrahydrofuran | 3.75 | 3.84 | 3.84 | 102 | 102 | 70.0-140 | | | 0.189 | 25 |
| 2,2,4-Trimethylpentane | 3.75 | 3.81 | 3.84 | 102 | 103 | 70.0-130 | | | 0.934 | 25 |
| Vinyl Bromide | 3.75 | 3.80 | 3.86 | 101 | 103 | 70.0-130 | | | 1.33 | 25 |
| Isopropylbenzene | 3.75 | 4.04 | 4.03 | 108 | 108 | 70.0-130 | | | 0.0733 | 25 |
| *(S) 1,4-Bromofluorobenzene* | | | | *99.1* | *98.9* | *60.0-140* | | | | |

## Method Blank (MB)

(MB) R3290048-3 03/01/18 09:11

| Analyte | MB Result ppbv | MB Qualifier | MB MDL ppbv | MB RDL ppbv |
|---|---|---|---|---|
| Acetone | U | | 0.0569 | 1.25 |
| Allyl Chloride | U | | 0.0546 | 0.200 |
| Benzene | U | | 0.0460 | 0.200 |
| Benzyl Chloride | U | | 0.0598 | 0.200 |
| Bromodichloromethane | U | | 0.0436 | 0.200 |
| Bromoform | U | | 0.0786 | 0.600 |
| Bromomethane | U | | 0.0609 | 0.200 |
| 1,3-Butadiene | U | | 0.0563 | 2.00 |
| Carbon disulfide | U | | 0.0544 | 0.200 |
| Carbon tetrachloride | U | | 0.0585 | 0.200 |
| Chlorobenzene | U | | 0.0601 | 0.200 |
| Chloroethane | U | | 0.0489 | 0.200 |
| Chloroform | U | | 0.0574 | 0.200 |
| Chloromethane | U | | 0.0544 | 0.200 |
| 2-Chlorotoluene | U | | 0.0605 | 0.200 |
| Cyclohexane | U | | 0.0534 | 0.200 |
| Dibromochloromethane | U | | 0.0494 | 0.200 |
| 1,2-Dibromoethane | U | | 0.0185 | 0.200 |
| 1,2-Dichlorobenzene | U | | 0.0603 | 0.200 |
| 1,3-Dichlorobenzene | U | | 0.0597 | 0.200 |
| 1,4-Dichlorobenzene | U | | 0.0557 | 0.200 |
| 1,2-Dichloroethane | U | | 0.0616 | 0.200 |
| 1,1-Dichloroethane | U | | 0.0514 | 0.200 |
| 1,1-Dichloroethene | U | | 0.0490 | 0.200 |
| cis-1,2-Dichloroethene | U | | 0.0389 | 0.200 |
| trans-1,2-Dichloroethene | U | | 0.0464 | 0.200 |
| 1,2-Dichloropropane | U | | 0.0599 | 0.200 |
| cis-1,3-Dichloropropene | U | | 0.0588 | 0.200 |
| trans-1,3-Dichloropropene | U | | 0.0435 | 0.200 |
| 1,4-Dioxane | U | | 0.0554 | 0.200 |
| Ethylbenzene | U | | 0.0506 | 0.200 |
| 4-Ethyltoluene | U | | 0.0666 | 0.200 |
| Trichlorofluoromethane | U | | 0.0673 | 0.200 |
| Dichlorodifluoromethane | U | | 0.0601 | 0.200 |
| 1,1,2-Trichlorotrifluoroethane | U | | 0.0687 | 0.200 |
| 1,2-Dichlorotetrafluoroethane | U | | 0.0458 | 0.200 |
| Heptane | U | | 0.0626 | 0.200 |
| Hexachloro-1,3-butadiene | U | | 0.0656 | 0.630 |
| n-Hexane | U | | 0.0457 | 0.200 |
| Isopropylbenzene | U | | 0.0563 | 0.200 |

## Method Blank (MB)

(MB) R3290048-3 03/01/18 09:11

| Analyte | MB Result ppbv | MB Qualifier | MB MDL ppbv | MB RDL ppbv |
|---|---|---|---|---|
| Methylene Chloride | U | | 0.0465 | 0.200 |
| Methyl Butyl Ketone | U | | 0.0682 | 1.25 |
| 2-Butanone (MEK) | U | | 0.0493 | 1.25 |
| 4-Methyl-2-pentanone (MIBK) | U | | 0.0650 | 1.25 |
| Methyl Methacrylate | U | | 0.0773 | 0.200 |
| MTBE | U | | 0.0505 | 0.200 |
| Naphthalene | U | | 0.154 | 0.630 |
| 2-Propanol | U | | 0.0882 | 1.25 |
| Propene | U | | 0.0932 | 0.400 |
| Styrene | U | | 0.0465 | 0.200 |
| 1,1,2,2-Tetrachloroethane | U | | 0.0576 | 0.200 |
| Tetrachloroethylene | U | | 0.0497 | 0.200 |
| Tetrahydrofuran | U | | 0.0508 | 0.200 |
| Toluene | U | | 0.0499 | 0.200 |
| 1,2,4-Trichlorobenzene | U | | 0.148 | 0.630 |
| 1,1,1-Trichloroethane | U | | 0.0665 | 0.200 |
| 1,1,2-Trichloroethane | U | | 0.0287 | 0.200 |
| Trichloroethylene | U | | 0.0545 | 0.200 |
| 1,2,4-Trimethylbenzene | U | | 0.0483 | 0.200 |
| 1,3,5-Trimethylbenzene | U | | 0.0631 | 0.200 |
| 2,2,4-Trimethylpentane | U | | 0.0456 | 0.200 |
| Vinyl chloride | U | | 0.0457 | 0.200 |
| Vinyl Bromide | U | | 0.0727 | 0.200 |
| Vinyl acetate | U | | 0.0639 | 0.200 |
| m&p-Xylene | U | | 0.0946 | 0.400 |
| o-Xylene | U | | 0.0633 | 0.200 |
| Ethanol | U | | 0.0832 | 0.630 |
| TPH (GC/MS) Low Fraction | U | | 6.91 | 50.0 |
| *(S) 1,4-Bromofluorobenzene* | *95.9* | | | *60.0-140* |

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

(LCS) R3290048-1 03/01/18 07:40 • (LCSD) R3290048-2 03/01/18 08:25

| 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 | 3.51 | 3.49 | 93.6 | 93.0 | 52.0-158 | | | 0.612 | 25 |
| Propene | 3.75 | 3.66 | 3.67 | 97.6 | 97.9 | 54.0-155 | | | 0.295 | 25 |
| Dichlorodifluoromethane | 3.75 | 3.54 | 3.46 | 94.5 | 92.3 | 69.0-143 | | | 2.29 | 25 |
| 1,2-Dichlorotetrafluoroethane | 3.75 | 3.78 | 3.79 | 101 | 101 | 70.0-130 | | | 0.418 | 25 |

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

(LCS) R3290048-1 03/01/18 07:40 • (LCSD) R3290048-2 03/01/18 08:25

| Analyte | Spike Amount ppbv | LCS Result ppbv | LCSD Result ppbv | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | 3.75 | 3.65 | 3.68 | 97.3 | 98.1 | 70.0-130 | | | 0.805 | 25 |
| Vinyl chloride | 3.75 | 3.80 | 3.77 | 101 | 101 | 70.0-130 | | | 0.702 | 25 |
| 1,3-Butadiene | 3.75 | 3.85 | 3.95 | 103 | 105 | 70.0-130 | | | 2.64 | 25 |
| Bromomethane | 3.75 | 3.77 | 3.48 | 100 | 92.7 | 70.0-130 | | | 8.04 | 25 |
| Chloroethane | 3.75 | 3.77 | 3.77 | 100 | 101 | 70.0-130 | | | 0.234 | 25 |
| Trichlorofluoromethane | 3.75 | 3.79 | 3.79 | 101 | 101 | 70.0-130 | | | 0.155 | 25 |
| 1,1,2-Trichlorotrifluoroethane | 3.75 | 3.84 | 3.86 | 102 | 103 | 70.0-130 | | | 0.462 | 25 |
| 1,1-Dichloroethene | 3.75 | 3.75 | 3.78 | 100 | 101 | 70.0-130 | | | 0.760 | 25 |
| 1,1-Dichloroethane | 3.75 | 3.80 | 3.83 | 101 | 102 | 70.0-130 | | | 0.631 | 25 |
| Acetone | 3.75 | 3.75 | 3.78 | 100 | 101 | 70.0-130 | | | 0.840 | 25 |
| 2-Propanol | 3.75 | 3.89 | 3.88 | 104 | 103 | 66.0-150 | | | 0.167 | 25 |
| Carbon disulfide | 3.75 | 3.85 | 3.85 | 103 | 103 | 70.0-130 | | | 0.0123 | 25 |
| Methylene Chloride | 3.75 | 3.65 | 3.64 | 97.2 | 97.0 | 70.0-130 | | | 0.249 | 25 |
| MTBE | 3.75 | 3.84 | 3.87 | 102 | 103 | 70.0-130 | | | 0.694 | 25 |
| trans-1,2-Dichloroethene | 3.75 | 3.82 | 3.82 | 102 | 102 | 70.0-130 | | | 0.135 | 25 |
| n-Hexane | 3.75 | 3.80 | 3.77 | 101 | 101 | 70.0-130 | | | 0.827 | 25 |
| Vinyl acetate | 3.75 | 4.07 | 4.06 | 108 | 108 | 70.0-130 | | | 0.0713 | 25 |
| Methyl Ethyl Ketone | 3.75 | 4.01 | 4.04 | 107 | 108 | 70.0-130 | | | 0.576 | 25 |
| cis-1,2-Dichloroethene | 3.75 | 3.85 | 3.86 | 103 | 103 | 70.0-130 | | | 0.284 | 25 |
| Chloroform | 3.75 | 3.79 | 3.81 | 101 | 102 | 70.0-130 | | | 0.521 | 25 |
| Cyclohexane | 3.75 | 3.86 | 3.87 | 103 | 103 | 70.0-130 | | | 0.206 | 25 |
| 1,1,1-Trichloroethane | 3.75 | 3.80 | 3.81 | 101 | 102 | 70.0-130 | | | 0.149 | 25 |
| Carbon tetrachloride | 3.75 | 3.80 | 3.82 | 101 | 102 | 70.0-130 | | | 0.605 | 25 |
| Benzene | 3.75 | 3.86 | 3.88 | 103 | 103 | 70.0-130 | | | 0.655 | 25 |
| 1,2-Dichloroethane | 3.75 | 3.79 | 3.81 | 101 | 102 | 70.0-130 | | | 0.612 | 25 |
| Heptane | 3.75 | 3.83 | 3.86 | 102 | 103 | 70.0-130 | | | 0.875 | 25 |
| Trichloroethylene | 3.75 | 3.88 | 3.89 | 103 | 104 | 70.0-130 | | | 0.380 | 25 |
| 1,2-Dichloropropane | 3.75 | 3.83 | 3.85 | 102 | 103 | 70.0-130 | | | 0.492 | 25 |
| 1,4-Dioxane | 3.75 | 4.03 | 4.12 | 107 | 110 | 70.0-152 | | | 2.33 | 25 |
| Bromodichloromethane | 3.75 | 3.85 | 3.86 | 103 | 103 | 70.0-130 | | | 0.0986 | 25 |
| cis-1,3-Dichloropropene | 3.75 | 3.95 | 3.98 | 105 | 106 | 70.0-130 | | | 0.544 | 25 |
| 4-Methyl-2-pentanone (MIBK) | 3.75 | 3.89 | 3.91 | 104 | 104 | 70.0-142 | | | 0.542 | 25 |
| Toluene | 3.75 | 3.94 | 3.97 | 105 | 106 | 70.0-130 | | | 0.659 | 25 |
| trans-1,3-Dichloropropene | 3.75 | 4.01 | 4.03 | 107 | 107 | 70.0-130 | | | 0.537 | 25 |
| 1,1,2-Trichloroethane | 3.75 | 3.86 | 3.87 | 103 | 103 | 70.0-130 | | | 0.144 | 25 |
| Tetrachloroethylene | 3.75 | 4.00 | 4.03 | 107 | 107 | 70.0-130 | | | 0.570 | 25 |
| Methyl Butyl Ketone | 3.75 | 4.09 | 4.11 | 109 | 110 | 70.0-150 | | | 0.512 | 25 |
| Dibromochloromethane | 3.75 | 3.96 | 3.98 | 105 | 106 | 70.0-130 | | | 0.540 | 25 |
| 1,2-Dibromoethane | 3.75 | 3.91 | 3.93 | 104 | 105 | 70.0-130 | | | 0.580 | 25 |
| Chlorobenzene | 3.75 | 3.83 | 3.85 | 102 | 103 | 70.0-130 | | | 0.620 | 25 |

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

(LCS) R3290048-1 03/01/18 07:40 • (LCSD) R3290048-2 03/01/18 08:25

| Analyte | Spike Amount ppbv | LCS Result ppbv | LCSD Result ppbv | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | 3.75 | 4.02 | 4.05 | 107 | 108 | 70.0-130 | | | 0.714 | 25 |
| m&p-Xylene | 7.50 | 7.92 | 7.99 | 106 | 107 | 70.0-130 | | | 0.836 | 25 |
| o-Xylene | 3.75 | 4.01 | 4.05 | 107 | 108 | 70.0-130 | | | 0.964 | 25 |
| Styrene | 3.75 | 4.19 | 4.23 | 112 | 113 | 70.0-130 | | | 0.950 | 25 |
| Bromoform | 3.75 | 4.23 | 4.29 | 113 | 114 | 70.0-130 | | | 1.36 | 25 |
| 1,1,2,2-Tetrachloroethane | 3.75 | 3.97 | 4.02 | 106 | 107 | 70.0-130 | | | 1.10 | 25 |
| 4-Ethyltoluene | 3.75 | 4.15 | 4.20 | 111 | 112 | 70.0-130 | | | 1.07 | 25 |
| 1,3,5-Trimethylbenzene | 3.75 | 4.13 | 4.18 | 110 | 111 | 70.0-130 | | | 1.27 | 25 |
| 1,2,4-Trimethylbenzene | 3.75 | 4.16 | 4.21 | 111 | 112 | 70.0-130 | | | 1.10 | 25 |
| 1,3-Dichlorobenzene | 3.75 | 4.27 | 4.33 | 114 | 116 | 70.0-130 | | | 1.56 | 25 |
| 1,4-Dichlorobenzene | 3.75 | 4.36 | 4.42 | 116 | 118 | 70.0-130 | | | 1.32 | 25 |
| Benzyl Chloride | 3.75 | 4.46 | 4.54 | 119 | 121 | 70.0-144 | | | 1.80 | 25 |
| 1,2-Dichlorobenzene | 3.75 | 4.20 | 4.27 | 112 | 114 | 70.0-130 | | | 1.72 | 25 |
| 1,2,4-Trichlorobenzene | 3.75 | 4.47 | 4.61 | 119 | 123 | 70.0-155 | | | 3.19 | 25 |
| Hexachloro-1,3-butadiene | 3.75 | 4.37 | 4.47 | 116 | 119 | 70.0-145 | | | 2.38 | 25 |
| Naphthalene | 3.75 | 4.45 | 4.59 | 119 | 122 | 70.0-155 | | | 3.17 | 25 |
| TPH (GC/MS) Low Fraction | 176 | 194 | 191 | 110 | 108 | 70.0-130 | | | 1.75 | 25 |
| Allyl Chloride | 3.75 | 3.84 | 3.80 | 102 | 101 | 70.0-130 | | | 1.21 | 25 |
| 2-Chlorotoluene | 3.75 | 4.05 | 4.09 | 108 | 109 | 70.0-130 | | | 0.896 | 25 |
| Methyl Methacrylate | 3.75 | 3.89 | 3.93 | 104 | 105 | 70.0-130 | | | 0.983 | 25 |
| Tetrahydrofuran | 3.75 | 3.83 | 3.82 | 102 | 102 | 70.0-140 | | | 0.333 | 25 |
| 2,2,4-Trimethylpentane | 3.75 | 3.80 | 3.82 | 101 | 102 | 70.0-130 | | | 0.494 | 25 |
| Vinyl Bromide | 3.75 | 3.86 | 3.91 | 103 | 104 | 70.0-130 | | | 1.15 | 25 |
| Isopropylbenzene | 3.75 | 4.05 | 4.11 | 108 | 110 | 70.0-130 | | | 1.49 | 25 |
| *(S) 1,4-Bromofluorobenzene* | | | | *98.9* | *98.5* | *60.0-140* | | | | |

## Method Blank (MB)

(MB) R3289835-3 03/01/18 12:14

| Analyte | MB Result % | MB Qualifier | MB MDL % | MB RDL % |
|---|---|---|---|---|
| Oxygen | 0.885 | J | 0.225 | 2.00 |
| Carbon Dioxide | U | | 0.121 | 0.500 |
| Methane | U | | 0.0584 | 0.400 |

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

(LCS) R3289835-1 03/01/18 11:49 • (LCSD) R3289835-2 03/01/18 11:54

| Analyte | Spike Amount % | LCS Result % | LCSD Result % | LCS Rec. % | LCSD Rec. % | Rec. Limits % | LCS Qualifier | LCSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|
| Oxygen | 2.50 | 2.78 | 2.89 | 111 | 116 | 70.0-130 | | | 3.85 | 20 |
| Carbon Dioxide | 2.50 | 2.63 | 2.60 | 105 | 104 | 70.0-130 | | | 1.26 | 20 |
| Methane | 2.00 | 2.09 | 2.09 | 105 | 105 | 70.0-130 | | | 0.0619 | 20 |

## 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.

## 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, 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. |
| 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. |
| J4 | The associated batch QC was outside the established quality control range for accuracy. |

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

| | | | |
|---|---|---|---|
| Alabama | 40660 | Nevada | TN-03-2002-34 |
| Alaska | UST-080 | New Hampshire | 2975 |
| Arizona | AZ0612 | New Jersey–NELAP | TN002 |
| Arkansas | 88-0469 | New Mexico | TN00003 |
| California | 01157CA | New York | 11742 |
| Colorado | TN00003 | North Carolina | Env375 |
| Connecticut | PH-0197 | North Carolina [1] | DW21704 |
| Florida | E87487 | North Carolina [2] | 41 |
| Georgia | NELAP | North Dakota | R-140 |
| Georgia [1] | 923 | Ohio–VAP | CL0069 |
| Idaho | TN00003 | Oklahoma | 9915 |
| Illinois | 200008 | Oregon | TN200002 |
| Indiana | C-TN-01 | Pennsylvania | 68-02979 |
| Iowa | 364 | Rhode Island | 221 |
| Kansas | E-10277 | South Carolina | 84004 |
| Kentucky [1] | 90010 | South Dakota | n/a |
| Kentucky [2] | 16 | Tennessee [1 4] | 2006 |
| Louisiana | AI30792 | Texas | T 104704245-07-TX |
| Maine | TN0002 | Texas [5] | LAB0152 |
| Maryland | 324 | Utah | 6157585858 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 109 |
| Minnesota | 047-999-395 | Washington | C1915 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 9980939910 |
| Montana | CERT0086 | Wyoming | A2LA |
| Nebraska | NE-OS-15-05 | | |

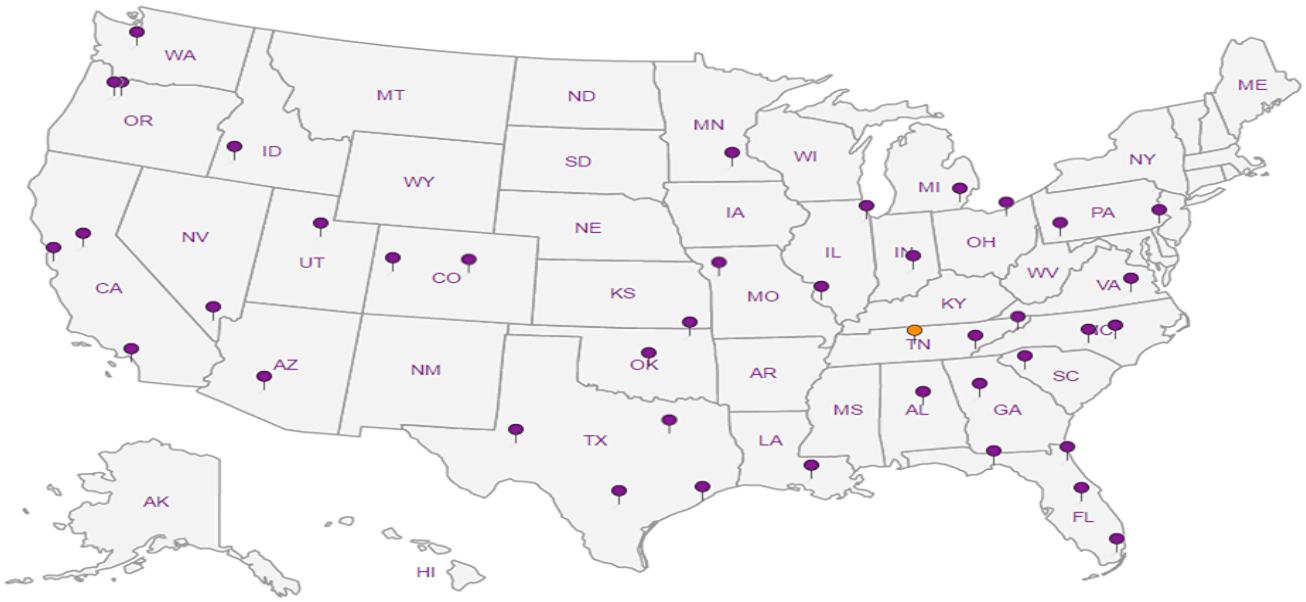
## Third Party Federal Accreditations

| | | | |
|---|---|---|---|
| A2LA – ISO 17025 | 1461.01 | AIHA-LAP,LLC | 100789 |
| A2LA – ISO 17025 [5] | 1461.02 | DOD | 1461.01 |
| Canada | 1461.01 | USDA | S-67674 |
| EPA–Crypto | TN00003 | | |

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

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. ESC Lab Sciences performs all testing at our central laboratory.



Company Name/Address:
Arcadis
2300 Clayton Road
Suite 400
Concord, CA 94520

Billing Information:

Report to:
Katherine Szymanowski

Email To:
Katherine.Szymanowski@arcadis.com

Project Description:

City/State Collected: Oakland, CA

Phone: (925) 202-7948
Fax:

Client Project #
B0090121.2018.00002

Lab Project #

Collected by (print):
E. Rubin

Site/Facility ID #
Chevron 90121

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)
___ Same Day ..... 200%
___ Next Day ..... 100%
___ Two Day ..... 50%
___ Three Day ..... 25%

Date Results Needed

Email? ___No ___Yes
FAX? ___No ___Yes

Canister Pressure/Vacuum

| Sample ID | Sample Description | Can # | Date | Time | Initial | Final | TO-15 SIM | ASTM D-1946 | | | Remarks/Contaminant | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3014-IA-SSVP-3 | Indoor Air | 006598 | 2/22/18 | ~~9:06~~ 16:45 | -29.5 | -5 | ✓ | ✓ | | | | -01 |
| 3014-IA-SSVP-1 | | 007972 | 2/22/18 | 8:59-17:10 | -29 | -10 | ✓ | ✓ | | | | -07 |
| 3014-IA-EAST | | 007383 | 2/22/18 | 9:03-17:09 | -29.5 | -5.5 | ✓ | ✓ | | | | -09 |
| 3014-IA-NW | | 008524 | 2/22/18 | 9:08-16:50 | -27.5 | -4.5 | ✓ | ✓ | | | | |
| 3014-IA-SE | | 008766 | 2/22/18 | 9:10-17:16 | -30 | -5 | ✓ | ✓ | | | | -04 |
| 3014-IA-SP | | 008028 | 2/22/18 | 9:11-16:52 | -28 | -4 | ✓ | ✓ | | | | -05 |
| 3008-IA-SE | | 007290 | 2/22/18 | 9:25-17:05 | -30 | -2 | ✓ | ✓ | | | | -06 |
| 3008-IA-NE | | 006841 | 2/22/18 | 9:23-17:00 | -30 | -6 | ✓ | ✓ | | | | |
| 3008-IA-RR | | 005697 | 2/22/18 | 9:24-17:07 | -29.5 | -9 | ✓ | ✓ | | | | -07 |
| IA-DUP-1 | | 008068 | 2/22/18 | | -30 | -2 | ✓ | ✓ | | | | -08 |

7898 6566 1089 7898 6569 8886
7898 6562 7430

Remarks:

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| | 2/23/18 | 1420 | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) |

Samples returned via: ☐ UPS ☒ FedEx ☐ Courier ☐ ____
Temp: 4.6 °C Bottles Received: 9
Date: 2-26-18 Time: 0910

Hold #
Condition: (lab use only) +0
COC Seal Intact: ___ Y ___ N ___ NA
pH Checked: NCF: X

Chain of Custody Page 1 of 2

ESC LAB SCIENCES
a subsidiary of Pace Analytical
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 197975
D237

Acctnum: ARCAWSCA
Template: T132960
Prelogin: P635707
TSR: Brian Ford
PB: BF 2/16/18
Shipped Via: Saver

Company Name/Address:
Arcadis
2300 Clayton Road
Suite 400
Concord, CA 94520

Billing Information:

Report to:
Katherine Szymanowski

Email To:
Katherine.Sz-ymanowski@arcadis.com

Project Description:

City/State Collected:
Oakland, CA

Phone:
Fax:

Client Project #
B00 90121.2018.00002

Lab Project #

Collected by (print):
E. Rubin

Site/Facility ID #
Chevron 9012

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)
✓ Same Day ..... 200%
___ Next Day ..... 100%
___ Two Day ..... 50%
___ Three Day ..... 25%

Date Results Needed

Email? ___No ___Yes
FAX? ___No ___Yes

Canister Pressure/Vacuum

Analysis
TO-15 SIM
ASTM D-1946

Chain of Custody Page 2 of 2

ESC LAB SCIENCES
a subsidiary of Pace Analytical

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1972975

Table #

Acctnum: ARCAWSCA
Template: T132560
Prelogin: P635607
TSR: Pam Faris
PB: BF 2/16/18
Shipped Via: Silver

| Sample ID | Sample Description | Can # | Date | Time | Initial | Final | Rem./Contaminant | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|
| OA-3 | Outdoor Air | 005066 | 2/22/18 | 9:23-17:05 | [redacted] | -11 | | -09 |
| OA-4 | Outdoor Air | 006631 | 2/22/18 | 9:48-17:04 | -28.5 | -4 | | |
| SSUP-1 | Outdoor Air Sub-Slab | 006174 | 2/22/18 | 10:02 | -27 | -5 | | |
| SSUP-3 | ↓ | 006550 | 2/22/18 | 17:17 | -25 | -5 | | |
| SSUP-2 | | 009042 | 2/22/18 | 16:56 | -27 | -5 | | |
| SU-DUP-1 | | 008085 | 2/22/18 | | -27 | -5 | | |

Remarks:

| Relinquished by: (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| | 2/23/18 | 14:20 | |
| Relinquished by: (Signature) | Date: | Time: | Received by: (Signature) |
| Relinquished by: (Signature) | Date: | Time: | Received for lab by: (Signature) |

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ____
Temp: Amb. °C Bottles Received: 9
Date: 2.26.18 Time: 0910

Hold #
Condition: (lab use only) ID
COC Seal Intact: ___Y ___N ___NA
pH Checked: NCF: X

ARCADIS Design & Consultancy for natural and built assets

CHEVRON 90121

# DATA REVIEW

## Chevron Site 90121

*Volatile Organic Compounds Analyses*

SDG #: 1802507

Analyses Performed By:
Eurofins/Air Toxics Ltd.
Folsom, California

Report #: 29368R
Review Level: Tier II
Project: B0090121.IASV.00003

# SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) # 1802507 for samples collected in association with the Chevron 90121 site. The review was conducted as a Tier II evaluation and included review of data package completeness. Only analytical data as reported by the laboratory were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

| Sample ID | Lab ID | Matrix | Sample Collection Date | Parent Sample | Analysis | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | VOC | SVOC | TPH | MET | MISC |
| 3014-IA-SSVP-3 | 1802507-01A | Air | 2/22/2018 | | X | | | | |
| SSVP-1-2 | 1802507-03A | Air | 2/22/2018 | | X | | | | |
| SSVP-2 | 1802507-04A | Air | 2/22/2018 | | X | | | | |
| SSVP-3 | 1802507-05A | Air | 2/22/2018 | | X | | | | |

## ANALYTICAL DATA PACKAGE DOCUMENTATION

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

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

## ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) Method TO-17. Data were reviewed in accordance with *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (October 1999).

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

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

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

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

## VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

### 1. Holding Times

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

| Method | Matrix | Holding Time | Preservation |
|---|---|---|---|
| USEPA TO-17 | Air | 30 days from collection to analysis | Ambient Temperature |

All samples were analyzed within the specified holding time criteria.

### 2. Blank Contamination

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

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

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

### 3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the method-specified acceptance limits of 70-130%.

All samples exhibited surrogate recoveries within the control limits.

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

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

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

The MS/MSD analysis was not performed on a sample from within this SDG.

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

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The spiked compounds used in the LCS/LCSD analysis must exhibit

recoveries within the method-specified acceptance limits of 70% to 130%. The relative percent difference (RPD) between the LCS and LCSD results must be within the method-suggested acceptance limit of 25%.

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

## 6. Field Duplicate Sample Analysis

The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. A control limit of 50% for air matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to five times the reporting limit (RL), a control limit of two times the RL is applied to the difference between the results for air matrices.

Field duplicate samples were not collected as part of this SDG.

## 7. System Performance and Overall Assessment

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

## DATA VALIDATION CHECKLIST FOR VOCS

| VOCs: USEPA TO-17 | Reported | | Performance Acceptable | | Not Required |
|---|---|---|---|---|---|
| | No | Yes | No | Yes | |
| Gas Chromatography/Mass Spectrometry (GC/MS) | | | | | |
| **Tier II Validation** | | | | | |
| Holding Times | | X | | X | |
| Return Canister Pressure (< -1" Hg) | | | | | X |
| Reporting Limits (Units) | | X | | X | |
| Blanks | | | | | |
| A. Method Blanks | | X | | X | |
| B. Equipment and/or Field Blanks | | | | | X |
| C. Trip Blanks | | | | | X |
| Surrogates Accuracy (%R) | | X | | X | |
| Matrix Spike (MS) %R | X | | | | X |
| Matrix Spike Duplicate (MSD) %R | X | | | | X |
| MS/MSD Precision (RPD) | X | | | | X |
| Laboratory Control Sample (LCS) %R | | X | | X | |
| Laboratory Control Sample Duplicate (LCSD) %R | | X | | X | |
| LCS/LCSD RPD | | X | | X | |
| Laboratory Duplicate Sample RPD | X | | | | X |
| Field Duplicate Sample RPD | | | | | X |
| Dilution Factor | | X | | X | |

%R - Percent recovery
RPD - Relative percent difference

Validation Performed By: Dennis Dyke

Signature: 

Date: March 5, 2018

# CHAIN OF CUSTODY AND CORRECTED SAMPLE ANALYSIS DATA SHEETS

**TO-17 SAMPLE COLLECTION**

# Air Toxics LTD.

## CHAIN-OF-CUSTODY RECORD

**Sample Transportation Notice**
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922.

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630
(916) 985-1000 FAX (916) 985-1020



Project Manager Katherine Szymanowski
Collected by: (Print and Sign) Everett Rubin
Company Arcadis Email
Address 2300 Clayton Road City Concord State CA Zip 94520
Phone (925) 202-7948 Fax

**Project Info:**
P.O. #
Project # B0090121.2018.0002
Project Name Chevron 90121

**Turn Around Time:**
☐ Normal
☑ Rush 24 hr TAT (specify)

**Reporting Units:**
☐ ppmv ☐ ppbv ☐ µg/m3 ☐ mg/m3

| Lab I.D. | Field Sample I.D. (Location) | Engraved or Stamped Tube # | Date of Collection (mm/dd/yy) | Start Time (hr:min) | End Time (hr:min) | Pre-Test Flow Rate | Post-Test Flow Rate | Volume | Indoor/Outdoor % RH | Indoor/Outdoor Temp | Indoor Air | Outdoor Air | Soil Vapor | Other ( ) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01A | 3014-IA-SSVP-3 | G0T32025 | 2/22/18 | 12:52 | | 30 | 30 | | | | ☑ | ☐ | ☐ | ☐ |
| 02A | SSVP-1-1 (DO NOT Analyze) | G0132018 | 2/22/18 | 12:20 | 12:25 | 160 | 160 | 900 ml | | | ☐ | ☐ | ☑ | ☐ |
| 03A | SSVP-1-2 | G0137159 | 2/22/18 | 13:01 | 13:06 | ↓ | ↓ | ↓ | | | ☐ | ☐ | ☑ | ☐ |
| 04A | SSVP-2 | G0150678 | 2/22/18 | 16:12 | 16:17 | | | | | | ☐ | ☐ | ☑ | ☐ |
| 05A | SSVP-3 | A00400 | 2/22/18 | 17:20 | 17:25 | | | | | | ☐ | ☐ | ☑ | ☐ |
| | | | | | | | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | | | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | | | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | | | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | | | | | | | ☐ | ☐ | ☐ | ☐ |

| Relinquished by: (signature) | Date/Time | Received by: (signature) | Date/Time |
|---|---|---|---|
| Everett Rubin | 2/23/18 14:40 | FAR | 02/26/18 1515 |
| Relinquished by: (signature) | Date/Time | Received by: (signature) | Date/Time |
| Relinquished by: (signature) | Date/Time | Received by: (signature) | Date/Time |

Notes: Do not analyze SSVP-1-1
TO-17 for Nap only

| Lab Use Only | Shipper Name | Air Bill # | Temp (°C) | Condition | Custody Seals Intact? | Work Order # |
|---|---|---|---|---|---|---|
| | FedEx | | 10.2°C | SOR | Yes No (None) | 1802507 |

eurofins | Air Toxics

**Client Sample ID: 3014-IA-SSVP-3**

**Lab ID#: 1802507-01A**

**EPA METHOD TO-17**

| | | | |
|---|---|---|---|
| **File Name:** | **6022708** | **Date of Extraction: NA** | **Date of Collection: 2/22/18 12:52:00 PM** |
| **Dil. Factor:** | **1.00** | | **Date of Analysis: 2/27/18 09:26 AM** |

| Compound | Rpt. Limit (ng) | Rpt. Limit (ug/m3) | Amount (ng) | Amount (ug/m3) |
|---|---|---|---|---|
| Naphthalene | 1.0 | 0.13 | Not Detected | Not Detected |

**Air Sample Volume(L): 7.44**
**Container Type: TO-17 VI Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Naphthalene-d8 | 63 | 50-150 |

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**Client Sample ID: SSVP-1-2**

**Lab ID#: 1802507-03A**

**EPA METHOD TO-17**

| | | | |
|---|---|---|---|
| **File Name:** | **6022712** | **Date of Extraction: NA** | **Date of Collection: 2/22/18 1:06:00 PM** |
| **Dil. Factor:** | **1.00** | | **Date of Analysis: 2/27/18 12:17 PM** |

| Compound | Rpt. Limit (ng) | Rpt. Limit (ug/m3) | Amount (ng) | Amount (ug/m3) |
|---|---|---|---|---|
| Naphthalene | 1.0 | 1.1 | Not Detected | Not Detected |

**Air Sample Volume(L): 0.900**
**Container Type: TO-17 VI Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Naphthalene-d8 | 76 | 50-150 |

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**Client Sample ID: SSVP-2**

**Lab ID#: 1802507-04A**

**EPA METHOD TO-17**

| | | | |
|---|---|---|---|
| **File Name:** | **6022713** | **Date of Extraction: NA** | **Date of Collection: 2/22/18 4:17:00 PM** |
| **Dil. Factor:** | **1.00** | | **Date of Analysis: 2/27/18 12:58 PM** |

| Compound | Rpt. Limit (ng) | Rpt. Limit (ug/m3) | Amount (ng) | Amount (ug/m3) |
|---|---|---|---|---|
| Naphthalene | 1.0 | 1.1 | Not Detected | Not Detected |

**Air Sample Volume(L): 0.900**
**Container Type: TO-17 VI Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Naphthalene-d8 | 78 | 50-150 |

eurofins | Air Toxics

**Client Sample ID: SSVP-3**

**Lab ID#: 1802507-05A**

**EPA METHOD TO-17**

| | | | |
|---|---|---|---|
| **File Name:** | **6022714** | **Date of Extraction: NA** | **Date of Collection: 2/22/18 5:25:00 PM** |
| **Dil. Factor:** | **1.00** | | **Date of Analysis: 2/27/18 01:40 PM** |

| Compound | Rpt. Limit (ng) | Rpt. Limit (ug/m3) | Amount (ng) | Amount (ug/m3) |
|---|---|---|---|---|
| Naphthalene | 1.0 | 1.1 | Not Detected | Not Detected |

**Air Sample Volume(L): 0.900**
**Container Type: TO-17 VI Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Naphthalene-d8 | 84 | 50-150 |

eurofins | Air Toxics

2/27/2018
Ms. Kathy Szymanowski
Arcadis U.S., Inc.
2300 Clayton Rd.
Suite 400
Concord CA 94520

Project Name: Chevron 90121
Project #: B0090121.2018.00002
Workorder #: 1802507

Dear Ms. Kathy Szymanowski

The following report includes the data for the above referenced project for sample(s) received on 2/26/2018 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-17 VI are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Rachel Selenis at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Rachel Selenis

Project Manager

eurofins | Air Toxics

# WORK ORDER #: 1802507

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Kathy Szymanowski<br>Arcadis U.S., Inc.<br>2300 Clayton Rd.<br>Suite 400<br>Concord, CA 94520 | **BILL TO:** | Accounts Payable<br>Arcadis U.S., Inc.<br>630 Plaza Drive<br>Suite 600<br>Highlands Ranch, CO 80129 |
| **PHONE:** | 925-202-7948 | **P.O. #** | B0090121.2018.00002 |
| **FAX:** | | **PROJECT #** | B0090121.2018.00002 Chevron 90121 |
| **DATE RECEIVED:** | 02/26/2018 | **CONTACT:** | Rachel Selenis |
| **DATE COMPLETED:** | 02/27/2018 | | |

| FRACTION # | NAME | TEST |
|---|---|---|
| 01A | 3014-IA-SSVP-3 | Modified TO-17 VI |
| 02A(cancelled) | SSVP-1-1 | Modified TO-17 VI |
| 03A | SSVP-1-2 | Modified TO-17 VI |
| 04A | SSVP-2 | Modified TO-17 VI |
| 05A | SSVP-3 | Modified TO-17 VI |
| 06A | Lab Blank | Modified TO-17 VI |
| 07A | CCV | Modified TO-17 VI |
| 08A | LCS | Modified TO-17 VI |
| 08AA | LCSD | Modified TO-17 VI |

CERTIFIED BY:  DATE: 02/27/18

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-16-11, UT NELAP CA0093332016-7, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2016, Expiration date: 10/17/2017.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

**LABORATORY NARRATIVE**
**Modified EPA Method TO-17 (VI Tubes)**
**Arcadis U.S., Inc.**
**Workorder# 1802507**

Five TO-17 VI Tube samples were received on February 26, 2018. The laboratory performed the analysis via modified EPA Method TO-17 using GC/MS in the full scan mode. TO-17 'VI' sorbent tubes are thermally desorbed onto a secondary trap. The trap is thermally desorbed to elute the components into the GC/MS system for compound separation and detection.

A modification that may be applied to EPA Method TO-17 at the client's discretion is the requirement to transport sorbent tubes at 4 deg C. Laboratory studies demonstrate a high level of stability for VOCs on the TO-17 'VI' tube at room temperature for periods of up to 14 days. Tubes can be shipped to and from the field site at ambient conditions as long as the 14-day sample hold time is upheld. Trip blanks and field surrogate spikes are used as additional control measures to monitor recovery and background contribution during tube transport.

Since the TO-17 VI application significantly extends the scope of target compounds addressed in EPA Method TO-15 and TO-17, the laboratory has implemented several method modifications outlined in the table below. Specific project requirements may over-ride the laboratory modifications.

| ***Requirement*** | ***TO-17*** | ***ATL Modifications*** |
|---|---|---|
| Distributed Volume Pairs | Collection of distributed volume pairs required for monitoring ambient air to insure high quality. | If site is well-characterized or performance previously verified, single tube sampling may be appropriate. Distributed pairs may be impractical for soil gas collection due to configuration and volume constraints. |

## Receiving Notes

A Temperature Blank was included with the shipment. Temperature was measured and was not within 4±2 °C. Coolant in the form of blue ice was present. Analysis proceeded.

Sample SSVP-1-1 was cancelled on 02/26/2018 per client's request.

To calculate ug/m3 concentrations in sample 3014-IA-SSVP-3, a sampling volume of 7.44 L was applied. The assumed volume used does not incorporate any pump issues in the field.

## Analytical Notes

A sampling volume of 7.44 L was used to convert ng to ug/m3 for the associated Lab Blank.

## Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in blank (subtraction not performed).
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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# Summary of Detected Compounds
# EPA METHOD TO-17

**Client Sample ID: 3014-IA-SSVP-3**

**Lab ID#: 1802507-01A**

No Detections Were Found.

**Client Sample ID: SSVP-1-2**

**Lab ID#: 1802507-03A**

No Detections Were Found.

**Client Sample ID: SSVP-2**

**Lab ID#: 1802507-04A**

No Detections Were Found.

**Client Sample ID: SSVP-3**

**Lab ID#: 1802507-05A**

No Detections Were Found.

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**Client Sample ID: 3014-IA-SSVP-3**

**Lab ID#: 1802507-01A**

**EPA METHOD TO-17**

| | | | |
|---|---|---|---|
| **File Name:** | **6022708** | **Date of Extraction: NA** | **Date of Collection: 2/22/18 12:52:00 PM** |
| **Dil. Factor:** | **1.00** | | **Date of Analysis: 2/27/18 09:26 AM** |

| Compound | Rpt. Limit (ng) | Rpt. Limit (ug/m3) | Amount (ng) | Amount (ug/m3) |
|---|---|---|---|---|
| Naphthalene | 1.0 | 0.13 | Not Detected | Not Detected |

**Air Sample Volume(L): 7.44**
**Container Type: TO-17 VI Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Naphthalene-d8 | 63 | 50-150 |

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**Client Sample ID: SSVP-1-2**

**Lab ID#: 1802507-03A**

**EPA METHOD TO-17**

| | | | |
|---|---|---|---|
| **File Name:** | **6022712** | **Date of Extraction: NA** | **Date of Collection: 2/22/18 1:06:00 PM** |
| **Dil. Factor:** | **1.00** | | **Date of Analysis: 2/27/18 12:17 PM** |

| Compound | Rpt. Limit (ng) | Rpt. Limit (ug/m3) | Amount (ng) | Amount (ug/m3) |
|---|---|---|---|---|
| Naphthalene | 1.0 | 1.1 | Not Detected | Not Detected |

**Air Sample Volume(L): 0.900**
**Container Type: TO-17 VI Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Naphthalene-d8 | 76 | 50-150 |

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**Client Sample ID: SSVP-2**

**Lab ID#: 1802507-04A**

**EPA METHOD TO-17**

| | | | |
|---|---|---|---|
| **File Name:** | **6022713** | **Date of Extraction: NA** | **Date of Collection: 2/22/18 4:17:00 PM** |
| **Dil. Factor:** | **1.00** | | **Date of Analysis: 2/27/18 12:58 PM** |

| Compound | Rpt. Limit (ng) | Rpt. Limit (ug/m3) | Amount (ng) | Amount (ug/m3) |
|---|---|---|---|---|
| Naphthalene | 1.0 | 1.1 | Not Detected | Not Detected |

**Air Sample Volume(L): 0.900**
**Container Type: TO-17 VI Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Naphthalene-d8 | 78 | 50-150 |

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**Client Sample ID: SSVP-3**

**Lab ID#: 1802507-05A**

**EPA METHOD TO-17**

| | | | |
|---|---|---|---|
| **File Name:** | **6022714** | **Date of Extraction: NA** | **Date of Collection: 2/22/18 5:25:00 PM** |
| **Dil. Factor:** | **1.00** | | **Date of Analysis: 2/27/18 01:40 PM** |

| Compound | Rpt. Limit (ng) | Rpt. Limit (ug/m3) | Amount (ng) | Amount (ug/m3) |
|---|---|---|---|---|
| Naphthalene | 1.0 | 1.1 | Not Detected | Not Detected |

**Air Sample Volume(L): 0.900**

**Container Type: TO-17 VI Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Naphthalene-d8 | 84 | 50-150 |

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**Client Sample ID: Lab Blank**

**Lab ID#: 1802507-06A**

**EPA METHOD TO-17**

| | | | |
|---|---|---|---|
| **File Name:** | **6022707** | **Date of Extraction: NA** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | | **Date of Analysis: 2/27/18 06:31 AM** |

| Compound | Rpt. Limit (ng) | Rpt. Limit (ug/m3) | Amount (ng) | Amount (ug/m3) |
|---|---|---|---|---|
| Naphthalene | 1.0 | 0.13 | Not Detected | Not Detected |

**Air Sample Volume(L): 7.44**

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Naphthalene-d8 | 87 | 50-150 |

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**Client Sample ID: CCV**
**Lab ID#: 1802507-07A**
**EPA METHOD TO-17**

| | | | |
|---|---|---|---|
| **File Name:** | **6022702** | **Date of Extraction: NA** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | | **Date of Analysis: 2/27/18 03:06 AM** |

| Compound | %Recovery |
|---|---|
| Naphthalene | 81 |

**Air Sample Volume(L): 1.00**
**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Naphthalene-d8 | 86 | 50-130 |

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**Client Sample ID: LCS**
**Lab ID#: 1802507-08A**
**EPA METHOD TO-17**

| | | | |
|---|---|---|---|
| **File Name:** | **6022704** | **Date of Extraction: NA** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | | **Date of Analysis: 2/27/18 04:28 AM** |

| Compound | %Recovery | Method Limits |
|---|---|---|
| Naphthalene | 83 | 70-130 |

**Air Sample Volume(L): 1.00**
**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Naphthalene-d8 | 84 | 50-150 |

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**Client Sample ID: LCSD**
**Lab ID#: 1802507-08AA**
**EPA METHOD TO-17**

| | | | |
|---|---|---|---|
| **File Name:** | **6022705** | **Date of Extraction: NA** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | | **Date of Analysis: 2/27/18 05:09 AM** |

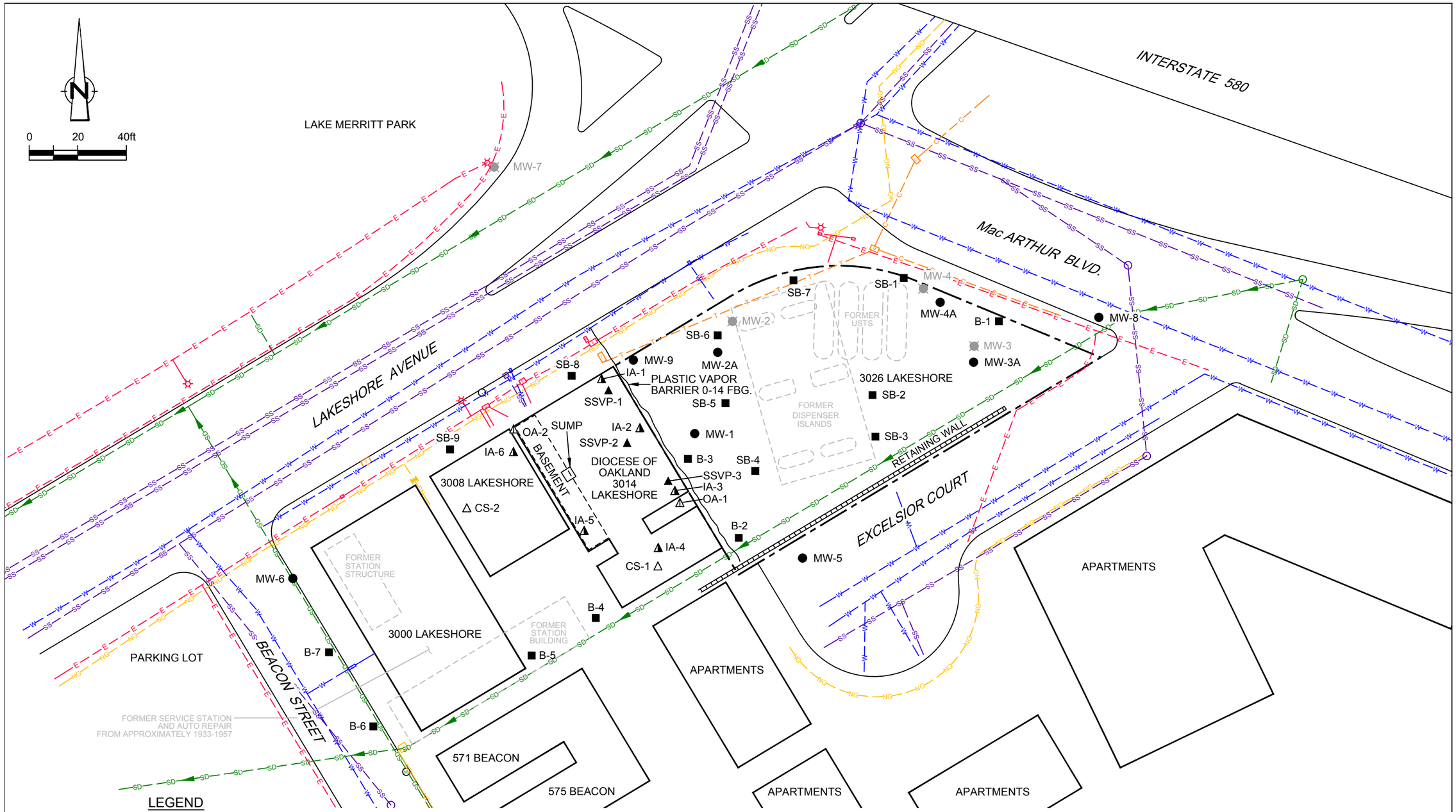
| Compound | %Recovery | Method Limits |
|---|---|---|
| Naphthalene | 86 | 70-130 |

**Air Sample Volume(L): 1.00**
**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Naphthalene-d8 | 87 | 50-150 |

# ATTACHMENT D

**Figure 2 from CRA 2014 Soil Vapor Investigation Report**




LEGEND

- MW-1 ● MONITORING WELL LOCATION
- MW-2 ✹ DESTROYED MONITORING WELL LOCATION
- SB-1 ■ SOIL BORING LOCATION
- ▲ SUB-SLAB VAPOR POINT LOCATION
- ◮ INDOOR AIR SAMPLE LOCATION
- △ CRAWL SPACE AIR SAMPLE LOCATION
- ◬ OUTDOOR AIR SAMPLE LOCATION
- W — WATER LINE
- SS — SANITARY SEWER LINE
- E — ELECTRICAL LINE
- C — COMMUNICATIONS LINE
- NG — NATURAL GAS LINE
- SD — STORM DRAIN LINE

Figure 2

SITE PLAN WITH SAMPLE LOCATIONS
FORMER CHEVRON SERVICE STATION 90121
3026 LAKESHORE AVENUE
*Oakland, California*

311973-2014(22)GN-EM002 DEC 3/2014