

General Electric Company

FOURTH OFF-SITE INVESTIGATION REPORT

GE Tell City Facility
1412 13th Street
Tell City, Indiana

August 10, 2018



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1412 13th Street
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Prepared for:
General Electric
1935 Redmond Circle
Rome, Georgia 30165

Prepared by:
Arcadis U.S., Inc.
150 W. Market Street
Suite 728
Indianapolis
Indiana 46204
Tel 317 231 6500
Fax 317 231 6514

Our Ref.:
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Daniel Petzold, LPG
Senior Geologist



Jon Akin, P.E.
Senior Engineer

THIRD OFF-SITE INVESTIGATION REPORT

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1 INTRODUCTION

Per the Off-Site Investigation Report submitted to the Indiana Department of Environmental Management (IDEM) on March 22, 2018, Arcadis has expanded the investigation of off-site groundwater and continued investigation of vapor intrusion (VI) on behalf of the General Electric Company (GE) for the closed GE Tell City manufacturing facility located at 1412 13th Street in Tell City, Perry County, Indiana (the “Site”; **Figure 1**). Although the evaluation of VI has not been completed for all potentially affected buildings, this report has been prepared for IDEM as an update to the on-going investigations. Arcadis previously submitted additional Off-Site Investigation Update Reports to IDEM on May 18, 2018 and June 15, 2018. This report presents results obtained after the information presented in the June 15, 2018 report through July 31, 2018.

The Site is a closed GE small motor manufacturing facility that occupies approximately 16 acres of land to the east of 13th Street and south of Payne Street (State Road 37) on the northeastern side of Tell City. It is situated in a mixed industrial/commercial/residential area, with residential sites located to the west, northwest, and southwest (**Figure 2**). Land to the northeast is agricultural, and land to the southeast is a city park. A single residence is located immediately east of the Site, adjacent to the city park. Small commercial/industrial sites are situated immediately south of the Site. A small stream (Windy Creek) flows from south to north near the eastern side of the Site, and land along both sides of the stream is owned by Tell City.

2 OFF-SITE INVESTIGATION RESULTS

2.1 Groundwater Sampling

2.1.1 Soil Boring Methodology

Arcadis oversaw the advancement of three additional soil borings in the off-site area to the north and northwest of the Site on July 3, 2018 (**Figure 3**). Soil boring AP-83 was advanced in the yard of 1511 14th Street, to the north of the Site to evaluate the northern edge of the groundwater plume. Soil borings AP-79D and AP-80D were advanced at two locations in the alley between 9th and Main Streets on the western end of the study area to evaluate deeper groundwater conditions at these locations.

The soil borings were advanced under the direction of Arcadis by Chase Environmental Group using a Geoprobe™ direct-push probe system. Soil sampling was completed in five-foot sections using a dual-tube steel sampling rod that was driven into the soil with a hydraulic hammer. The sampling rod collected a five-foot long, two-inch diameter soil cores, which were encased in a plastic liner as it was advanced through the subsurface. Upon retrieval, the liners containing the soil cores were extracted from the sample rods and opened for field classification.

An Arcadis geologist maintained continuous logs of the materials and conditions encountered in the probes and classified the soils. The soil core descriptions are included on the soil probe logs (**Appendix A**). Because the off-site impacts were expected to be restricted to groundwater, no soil samples were submitted for laboratory analysis.

Following the soil boring activities, temporary one-inch diameter PVC well screens were inserted into the open boreholes to facilitate collection of groundwater samples. Groundwater samples were collected using Teflon® tubing equipped with a check valve to push water to the surface. The groundwater was purged to clear turbidity, to the extent possible, prior to the collection of samples in laboratory-provided containers.

2.1.2 Geology

Logs for the soil borings are presented in **Appendix A**.

The geology at the AP-83 location is similar to that seen in the northwestern portion of the Site: the upper 10 feet of soil is silty to sandy clay and clayey sand that is underlain by sand that extends to 31 feet below ground surface (bgs). The sand is underlain by gray silty clay and has a two foot thick saturated zone perched at the top of the clay.

The intent at boring locations AP-79D and AP-80D was to identify the bottom of the sand aquifer at these locations. It had previously been established that the upper surface of the underlying clay deepens to the west and that the saturated thickness within the sand increases to the west. The Geoprobe™ unit was able to advance a sampler to 55 feet bgs at these locations; however, heaving sands prevented deeper penetration. The borings showed that at least 20 feet of saturated thickness is present in the aquifer at those locations. Arcadis collected groundwater samples from the bottom of each soil boring (55 feet bgs) at boring locations AP-79D and AP-80D.

2.1.3 Groundwater Analytical Results

Table 1 presents the results of the analysis of July 3, 2018 groundwater grab samples for volatile organic compounds (VOCs). The laboratory report is attached in **Appendix C**. **Figure 3** presents the results for chlorinated VOCs (cVOCs) for both on-site and off-site borings and monitoring wells. The results are compared to the 2015 IDEM Remediation Closure Guide (RCG) screening levels.

Trichloroethene (TCE) was detected at a concentration of 12.7 micrograms per liter (ug/l) in the primary sample collected at AP-83 and at a concentration of 13 ug/l in its duplicate. These concentrations exceed both the RCG tap water screening level (5 ug/l) and the RCG vapor intrusion screening level (9.1 ug/l). Although the exact location of the TCE screening level delineation point is not defined, the groundwater analytical results for AP-63, 64, 65, and 66 provide enough information to indicate that AP-83 is very near the northerly extent of the impact.

No TCE was detected in the deep groundwater sample that was collected from AP-79D; however, TCE was detected at 110 ug/l in the deep groundwater sample that was collected from AP-80D.

2.2 Vapor Intrusion Evaluation

At the time of the submittal of the previous Off-Site Investigation Report, a total of 64 structures had been identified as needing vapor intrusion evaluation. As of July 31, 2018, a total of 50 of these structures have been evaluated (**Table 2**). Of these, a total of 14 structures were identified as sites where GE would offer precautionary mitigation systems. One owner has declined the system. A total of nine systems are currently operating, and four are in the process of being designed.

The results of the July 3, 2018 groundwater sampling indicate the need to evaluate an additional five structures, all of which are residential (fourth phase, **Figure 4**).

Vapor intrusion sampling included sub-slab sampling from basement floors or slabs-on-grade, crawl space sampling where appropriate, and indoor air sampling in basements (as applicable) and on the first floor of each structure. Pre-sampling and sampling methodology conformed to the methods presented in the March 22, 2018 Off-Site Investigation Report. Results of the sampling were compared to the 2017 RCG VI screening criteria, and decisions as to next steps were based on Table 1 of the IDEM Vapor Remedy Selection and Implementation Guidance Document (February 2014; referred to herein as the "Evaluation Matrix"). Samples that have been collected after the March 2018 update report were collected in a post-heating season period.

Tables of results along with the corresponding laboratory reports are presented sequentially for the structures in **Appendix B**. The structures have been coded with identification numbers (ID01, ID02, etc.) to maintain confidentiality of the property owners. For review purposes, IDEM will be presented with a confidential code for the identification numbers upon request.

The results of ambient air sampling are presented in **Table 3** and indicate that benzene, toluene, ethylbenzene, xylenes, carbon tetrachloride, and Freon 12 are ubiquitous in the ambient air of the neighborhood to the west of the GE Site.

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Structure ID01

A mitigation system was installed at this residential site on June 11, 2018. Arcadis returned to the site on July 9, 2018 to perform a 30-day system evaluation and collect indoor air samples to evaluate post-mitigation conditions. No analytes were detected above RCG screening levels in the samples that were collected from the first floor and basement. The system continues to operate as planned.

Structure ID02

A mitigation system was installed at this residential site on June 11-12, 2018. Arcadis returned to the site on July 9, 2018 to perform a 30-day system evaluation and collect indoor air samples to evaluate post-mitigation conditions. No analytes were detected above RCG screening levels in the samples that were collected from the first floor and basement. The system continues to operate as planned.

Structure ID04WS

This structure is a work shop to the east of the residential structure ID04, which was previously sampled. The owner of the property requested that GE sample his work shop building because he spends a significant amount of time in it and because the shop is near a residence that had high concentrations of TCE in a sub-slab sample. The indoor air sample for this structure contained benzene, chloroform, ethylbenzene, m & p-xylenes, and tetrachloroethene (PCE) at concentrations that were above the respective residential indoor air screening levels. However, because none of these compounds were detected above screening levels in the sub-slab sample and because the shop contains numerous chemicals including paints, stains, and cleaners, it is Arcadis' opinion that the indoor air exceedances are the result of one or more on-site sources.

Structure ID38

This structure is a slab-on-grade commercial building. Sampling of the sub-slab vapors and indoor air indicated no screening level exceedances. Based on this, the structure falls into Scenario 1 (no mitigation necessary) of the Evaluation Matrix. The owner has been informed of the results, and GE will re-sample in late summer to confirm the results.

Structure ID39

This structure is a slab-on-grade commercial building. Sampling of the sub-slab vapors and indoor air indicated no screening level exceedances. Based on this, the structure falls into Scenario 1 (no mitigation necessary) of the Evaluation Matrix. The owner has been informed of the results, and GE will re-sample in late summer to confirm the results.

Structure ID40

This structure is a slab-on-grade commercial building that has a very small (10 x20 feet) basement area. Sub-slab samples were collected under the main floor and under the basement area. No screening level exceedances were detected in the sample that was collected from below the main floor; however, TCE was detected at 3,400 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) in the sample that was collected from below the basement. No compounds were detected above commercial indoor air screening levels in the indoor air sample. As the sub-slab sample contained TCE at a concentration greater than ten times the RCG screening level and indoor air concentrations of TCE were below the screening level, this structure is in

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Scenario 3 (remedy or indefinite sampling) of the Evaluation Matrix. Based on the results GE has offered the owner a mitigation system for the basement area, and the owner has accepted.

Structure ID41

This structure is a residence that was scheduled for sampling; however, the sampling was temporarily postponed by the property owner.

Structure ID42

This structure is a house that has both a basement and a crawlspace. TCE was detected at a concentration of 730 $\mu\text{g}/\text{m}^3$ in the sub-slab sample. No TCE was detected in the indoor air samples. 1,2-dichloroethane was detected above the residential screening level in the crawlspace, basement and indoor air samples. Because this compound was not detected in the sub-slab sample, it is considered to be derived from an interior source. As the sub-slab sample contained TCE at a concentration greater than ten times the RCG screening level and indoor air concentrations of TCE were below the screening level, this structure is in Scenario 3 (remedy or indefinite sampling) of the Evaluation Matrix. GE has offered the owner a mitigation system.

Structure ID43

This structure is a house that has a basement. Sampling of the sub-slab vapors indicated no screening level exceedances; however, the first-floor air sample contained 1,2-dichloroethane at a concentration above its screening level. As this compound was not detected in the sub-slab sample, this structure falls into Scenario 4 (indoor air source likely) of the Evaluation Matrix. The owner has been informed of the results, and GE will re-sample in late summer to confirm the results.

Structure ID44

This structure is a house that has a basement. Sampling of the sub-slab vapors indicated no screening level exceedances; however, the basement and first-floor air samples contained 1,2-dichloroethane at concentrations above its screening level. As this compound was not detected in the sub-slab sample, this structure falls into Scenario 4 (indoor air source likely) of the Evaluation Matrix. The owner has been informed of the results, and GE will re-sample in late summer to confirm the results.

Structure ID45

This structure is a slab-on-grade commercial building. Sampling of the sub-slab vapors and indoor air indicated no screening level exceedances. Based on this, the structure falls into Scenario 1 (no mitigation necessary) of the Evaluation Matrix. The owner has been informed of the results, and GE will re-sample in late summer to confirm the results.

Structure ID46

This structure is a house with a crawlspace. Sampling of the indoor air and crawlspace air indicated no screening level exceedances. Based on this, the structure falls into Scenario 1 (no mitigation necessary) of the Evaluation Matrix. The owner has been informed of the results, and GE will re-sample in late summer to confirm the results.

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Structure ID47

This structure is a slab-on-grade commercial building. Sampling of the sub-slab vapors and indoor air indicated no screening level exceedances. Based on this, the structure falls into Scenario 1 (no mitigation necessary) of the Evaluation Matrix. The owner has been informed of the results, and GE will re-sample in late summer to confirm the results.

Structure ID48

This structure is a house that has a basement. TCE was detected at a concentration of 190 $\mu\text{g}/\text{m}^3$ in the sub-slab sample. No TCE was detected in the indoor air samples. As the sub-slab sample contained TCE at a concentration greater than two times the RCG screening level and indoor air concentrations of TCE were below the screening level, this structure is in Scenario 3 (remedy or indefinite sampling) of the Evaluation Matrix. GE has offered the owner a mitigation system.

Structure ID49

This structure is a house that has a basement. Sampling of the sub-slab vapors indicated no screening level exceedances; however, the basement and first-floor air samples contained 1,2-dichloroethane at a concentration above its screening level. As this compound was not detected in the sub-slab sample, this structure falls into Scenario 4 (indoor air source likely) of the Evaluation Matrix. The owner has been informed of the results, and GE will re-sample in late summer to confirm the results.

Structure ID50

This structure is a house that has a basement. TCE was detected at a concentration of 2,600 $\mu\text{g}/\text{m}^3$ in the sub-slab sample. No TCE was detected in the indoor air samples. Chloroform and 1,2-dichloroethane were detected above the residential screening levels in the indoor air samples. Because these compounds were not detected in the sub-slab sample, they are considered to be derived from an interior source. As the sub-slab sample contained TCE at a concentration greater than ten times the RCG screening level and indoor air concentrations of TCE were below the screening level, this structure is in Scenario 3 (remedy or indefinite sampling) of the Evaluation Matrix. GE has offered the owner a mitigation system.

3 NEXT STEPS

The TCE concentration found in the groundwater sample from AP-83 exceeds the RCG residential vapor intrusion screening level. Because of this, Arcadis has added a fourth phase of structures to be evaluated for vapor intrusion (Figure 4). This phase consists of five additional residential structures to the north of the GE site. Vapor intrusion sampling and mitigation will continue where necessary. Arcadis and GE will make all efforts to contact those owners who have either not responded to communications efforts.

Because of the detection of TCE in the deep sample from the AP-80D location, Arcadis is planning a more detailed evaluation of the deeper parts of the aquifer in the western end of the current investigation area. This evaluation is particularly important due to the presence of the Tell City well field to the west. Logs for the Tell City well field indicate that sand extends to as much as 110 feet bgs; however, the relationship between the sand within the study area and the sand at the wellfield remains unclear.

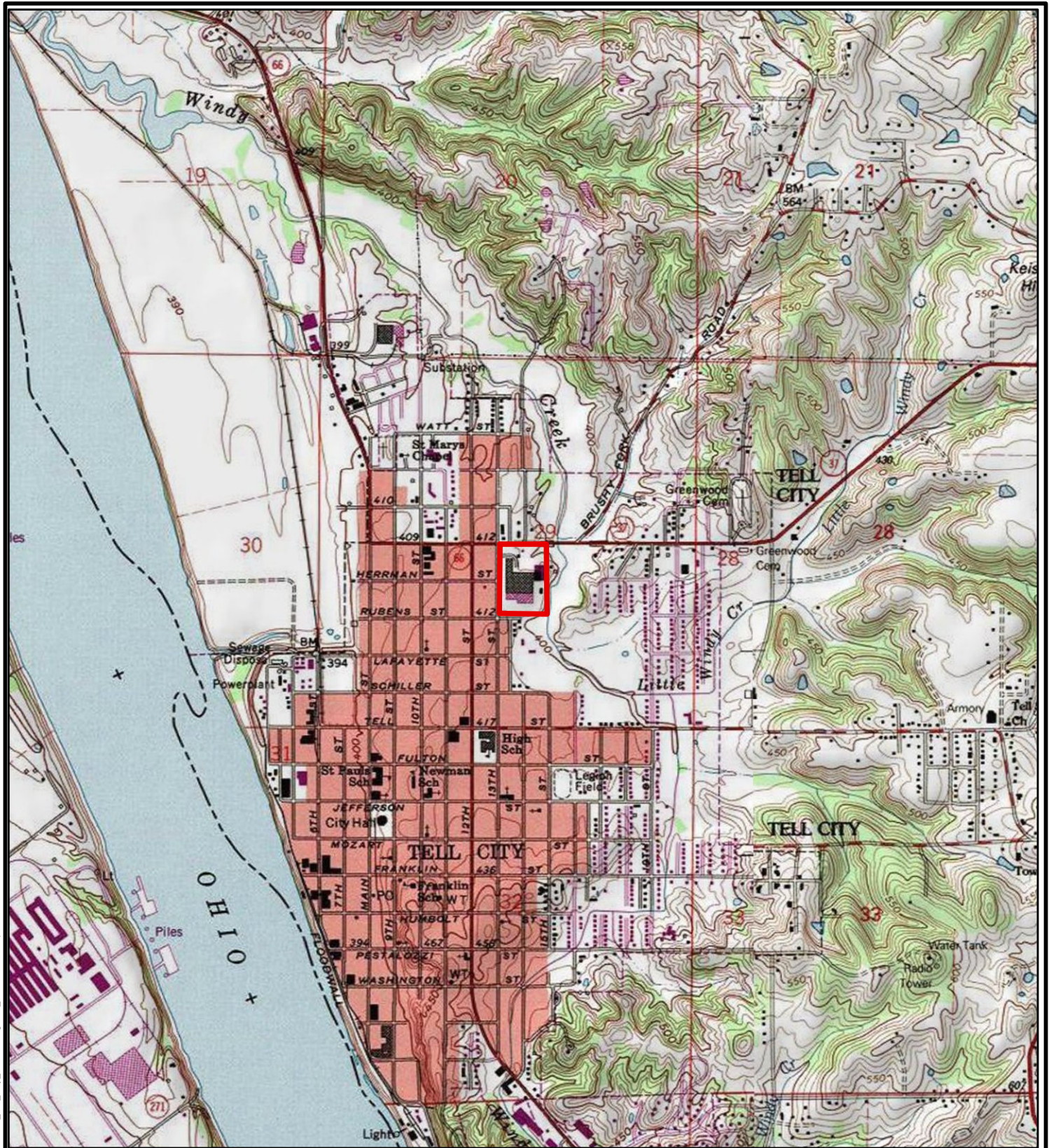
At this time, Arcadis proposes the advancement of two sets of deeper borings as presented in **Figure 3**. Arcadis proposes to advance these as direct-push soil borings using a hydraulic profile tool (HPT) and a second direct-push rig for vertical aquifer profile (VAP) groundwater sampling:

- Borings will be advanced using the HPT along 7th Street and in the alley to the west of 10th Street to establish the depth to the confining layer beneath the sand unit.
- In addition to identifying the depth of the confining layer, the HPT results will be used to identify transport, storage, and slow advection zones where VAP groundwater samples will be collected.
- The HPT will also provide estimated hydraulic conductivity values. Arcadis will attempt to use the HPT to obtain hydraulic conductivity data from the confining layer underlying the sand unit at select locations.
- Following the HPT borings, VAP groundwater samples will be collected at varying depths (up to 100') from each location for analysis of volatile organic compounds (VOCs).
- Arcadis' investigation of the groundwater will include an adaptive approach that will utilize a mobile laboratory from Pace Laboratory to provide near real-time analytical information that will allow real-time decisions on where and how deep to add sample sites. The mobile laboratory is a NELAC accredited GC/MS mobile laboratory that will perform VOCs analysis via EPA Method 8260.
- Based on the results at the initial locations, adaptive borings may be advanced as needed to further characterize each source area.

At the same time as the deeper borings are advanced, Arcadis is proposing to install the first set of down-gradient monitoring wells as shown in Figure 3. These will include two additional on-site wells that will be installed as paired deep and shallow wells and a line of wells along the alley between 11th and 12th Streets. Screens for the on-site paired wells will be set at the base of the sand and within the underlying clay, where thin sand stringers contain a limited amount of groundwater. Screens for the off-site wells will be set at the base of the sand. Additional down-gradient monitoring wells will be needed; however, the locations and depths of these wells will not be determined until the VAP/HPT soil borings are evaluated.

FIGURES





LEGEND

 APPROXIMATE PROPERTY BOUNDARY



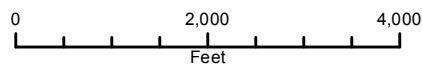
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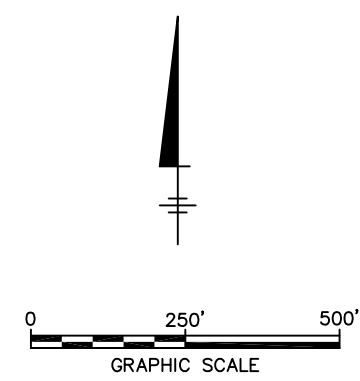
SITE LOCATION MAP



FIGURE 1

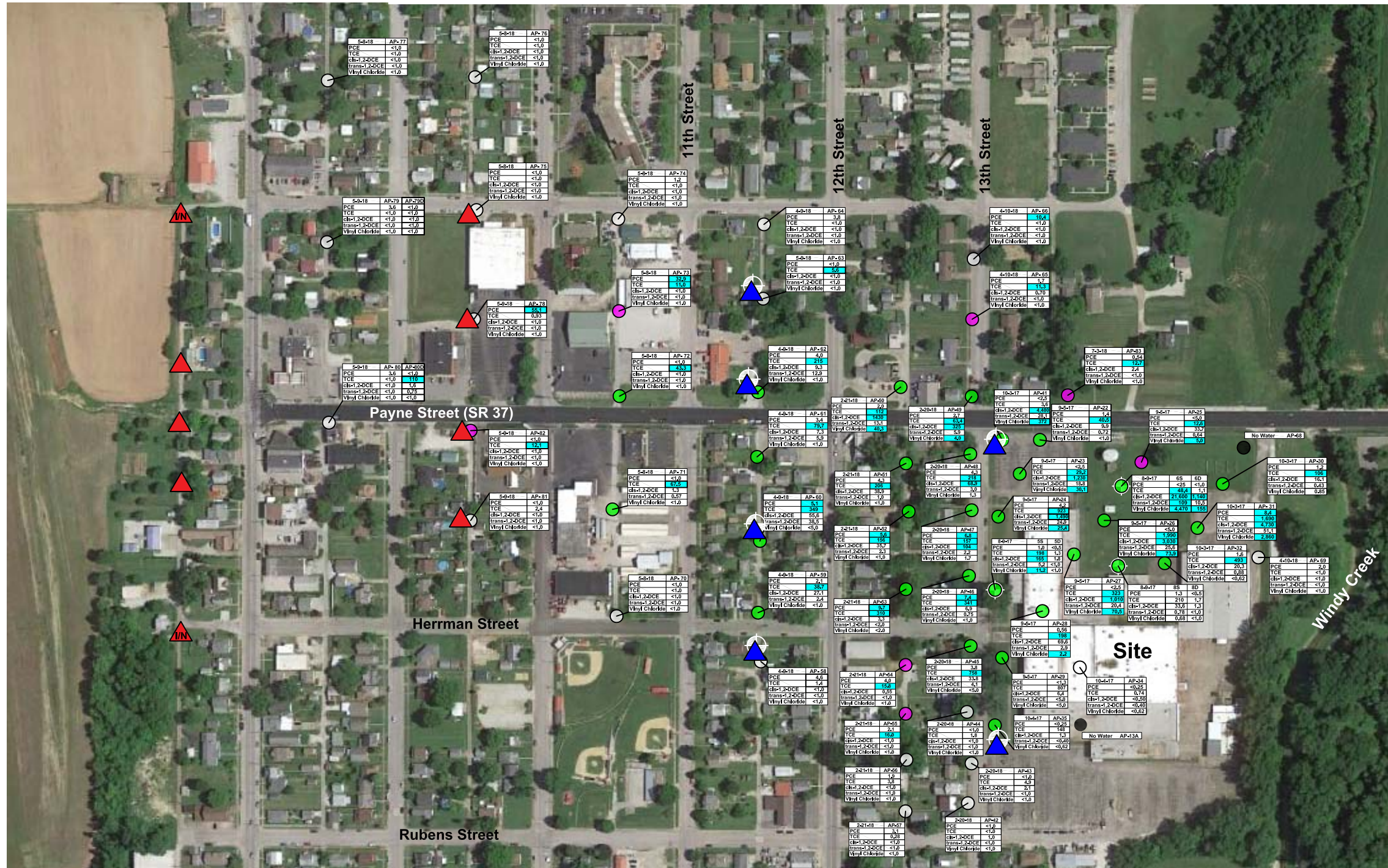
Service Layer Credits: Copyright: © 2013 National Geographic Society, i-cubed





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Site Vicinity Map



- Groundwater Exceeds Commercial/Industrial Vapor Intrusion Standard
- Groundwater Exceeds Residential Vapor Intrusion Standard
- No Groundwater Vapor Intrusion Exceedances

Drinking Water Exceedance

▲ Proposed Vertical Aquifer Profile Point

▲ Proposed Monitoring Well Location

I/N = If Needed Based On Analytical Results

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**Summary of Groundwater Data and Plan
for Additional Sampling**

Assigned Number	Sample Date	Results	Status
ID01	6-Apr	SS TCE=4,800 ug/m ³ ; IA<SL	Precautionary Mitigation Operating
ID02	10-Apr	SS TCE=500 ug/m ³ ; IA<SL	Precautionary Mitigation Operating
ID03	13-Apr	SS<SL; IA<SL*	Transmittal Letter Sent 4/27/2018
ID04	13-Apr	SS<SL; IA<SL	Transmittal Letter Sent 4/27/2018
ID04WS	29-Jun	SS<SL; IA<SL*	Transmittal Letter Sent 7/16/2018
ID05	10-Apr	SS<SL; IA<SL*	Transmittal Letter Sent 4/25/2018
ID06	11-Apr	SS<SL; IA<SL	Transmittal Letter Sent 4/25/2018
ID07	12-Apr	SS<SL; IA<SL*	Transmittal Letter Sent 4/25/2018
ID08	13-Apr	SS<SL; IA<SL*	Transmittal Letter Sent 4/27/2018
ID09	13-Apr	SS<SL; IA<SL	Transmittal Letter Sent 4/27/2018
ID10	13-Apr	SS TCE=130ug/m ³ ; IA<SL	Precautionary Mitigation Operating
ID11	20-Apr	SS<SL; IA<SL	Transmittal Letter Sent 5/2/2018
ID12	20-Apr	SS TCE=79ug/m ³ ; IA<SL	Transmittal Letter Sent 5/2/2018
ID13	20-Apr	CS<SL; IA<SL	Transmittal Letter Sent 5/2/2018
ID14	20-Apr	SS<SL; IA<SL	Transmittal Letter Sent 5/2/2018
ID15	20-Apr	SS<SL; IA<SL*	Transmittal Letter Sent 5/2/2018
ID16	20-Apr	SS<SL; IA<SL	Transmittal Letter Sent 5/1/2018
ID17	20-Apr	CS<SL; IA<SL	Transmittal Letter Sent 5/2/2018
ID18	20-Apr	CS<SL; IA<SL	Transmittal Letter Sent 5/2/2018
ID19	9-May	SS<SL; IA<SL*	Transmittal Letter Sent 5/23/2018
ID20	9-May	SS<SL; IA<SL*	Transmittal Letter Sent 5/23/2018
ID21	9-May	SS TCE=2,800; IA<SL; TCE=2.8 ug/m ³ ; IAFF TCE <0.17 ug/m ³	Precautionary Mitigation Operating
ID22	8-May	CS<SL; IA<SL*	Transmittal Letter Sent 5/23/2018
ID23	9-May	SS TCE=2,400ug/m ³ ; IA<SL*	Precautionary Mitigation Operating
ID24	9-May	SS<SL; IA<SL	Transmittal Letter Sent 5/23/2018
ID25	10-May	SS<SL; IA<SL*	Transmittal Letter Sent 5/23/2018
ID26	9-May	CS<SL; IA<SL	Transmittal Letter Sent 5/23/2018
ID27	16-May	SS TCE=630 ug/m ³ ; IA<SL*	Precautionary Mitigation Operating
ID28	16-May	SS<SL; IA<SL	Transmittal Letter Sent 6/5/2018
ID29	15-May	CS<SL; IA<SL	Transmittal Letter Sent 6/5/2018
ID30	15-May	SS<SL; IA<SL	Transmittal Letter Sent 6/5/2018
ID31	16-May	SS TCE=2,000 ug/m ³ ; IA<SL*	Precautionary Mitigation Operating
ID32	23-May	CS<SL; IA<SL*	Transmittal Letter Sent 6/6/2018
ID33	23-May	CS<SL; IA<SL*	Transmittal Letter Sent 6/6/2018
ID34	23-May	SS TCE=10,000ug/m ³ ; IA<SL*	Precautionary Mitigation Operating
ID35	23-May	SS TCE=4,000 ug/m ³ ; IA<SL	Precautionary Mitigation Operating
ID36	23-May	SS TCE=1,200ug/m ³ ; IA<SL*	Owner Declined Mitigation
ID37	23-May	SS<SL; IA<SL	Transmittal Letter Sent 6/6/2018
ID38	20-Jun	SS<SL; IA<SL	Transmittal Letter Sent 7/16/2018
ID39	20-Jun	SS<SL; IA<SL	Transmittal Letter Sent 7/16/2018
ID40	20-Jun	SS (basement) TCE=3,400 ug/m ³ ; SS (main) <SL; IA<SL	Transmittal Letter Sent 7/16/2018; Precautionary Mitigation
ID41	Postponed		
ID42	20-Jun	SS TCE=730ug/m ³ ; IA<SL*; CS<SL*	Transmittal Letter Sent 7/16/2018; Precautionary Mitigation
ID43	20-Jun	SS<SL; IA<SL*	Transmittal Letter Sent 7/16/2018
ID44	20-Jun	SS<SL; IA<SL*	Transmittal Letter Sent 7/16/2018
ID45	21-Jun	SS<SL; IA<SL	Transmittal Letter Sent 7/16/2018
ID46	21-Jun	CS<SL; IA<SL	Transmittal Letter Sent 7/16/2018
ID47	21-Jun	SS<SL; IA<SL	Transmittal Letter Sent 7/16/2018
ID48	21-Jun	SS TCE=190 ug/m ³ ; IA<SL	Transmittal Letter Sent 7/16/2018; Design Visit Scheduled
ID49	22-Jun	SS<SL; IA<SL*	Transmittal Letter Sent 7/16/2018
ID50	22-Jun	SS TCE=2,600 ug/m ³ ; IA<SL*	Transmittal Letter Sent 7/16/2018; Design visit scheduled

SS = Sub-Slab
IA = Indoor Air
CS = Crawl Space

TCE Screening Levels
Residential
Indoor Air = 2.1 ug/m³
Sub-Slab = 70 ug/m³
Commercial
Indoor Air = 8.8 ug/m³
Sub-Slab = 294 ug/m³

- Sampling Completed
- Contact Made; No Schedule Yet
- Contact Made Tentatively Scheduled
- No to Sampling
- No Contact Made As Yet
- Groundwater Exceeds Commercial Industrial Vapor Intrusion Standard
- Groundwater Exceeds Residential Vapor Intrusion Standard
- No Vapor Intrusion Groundwater Exceedances

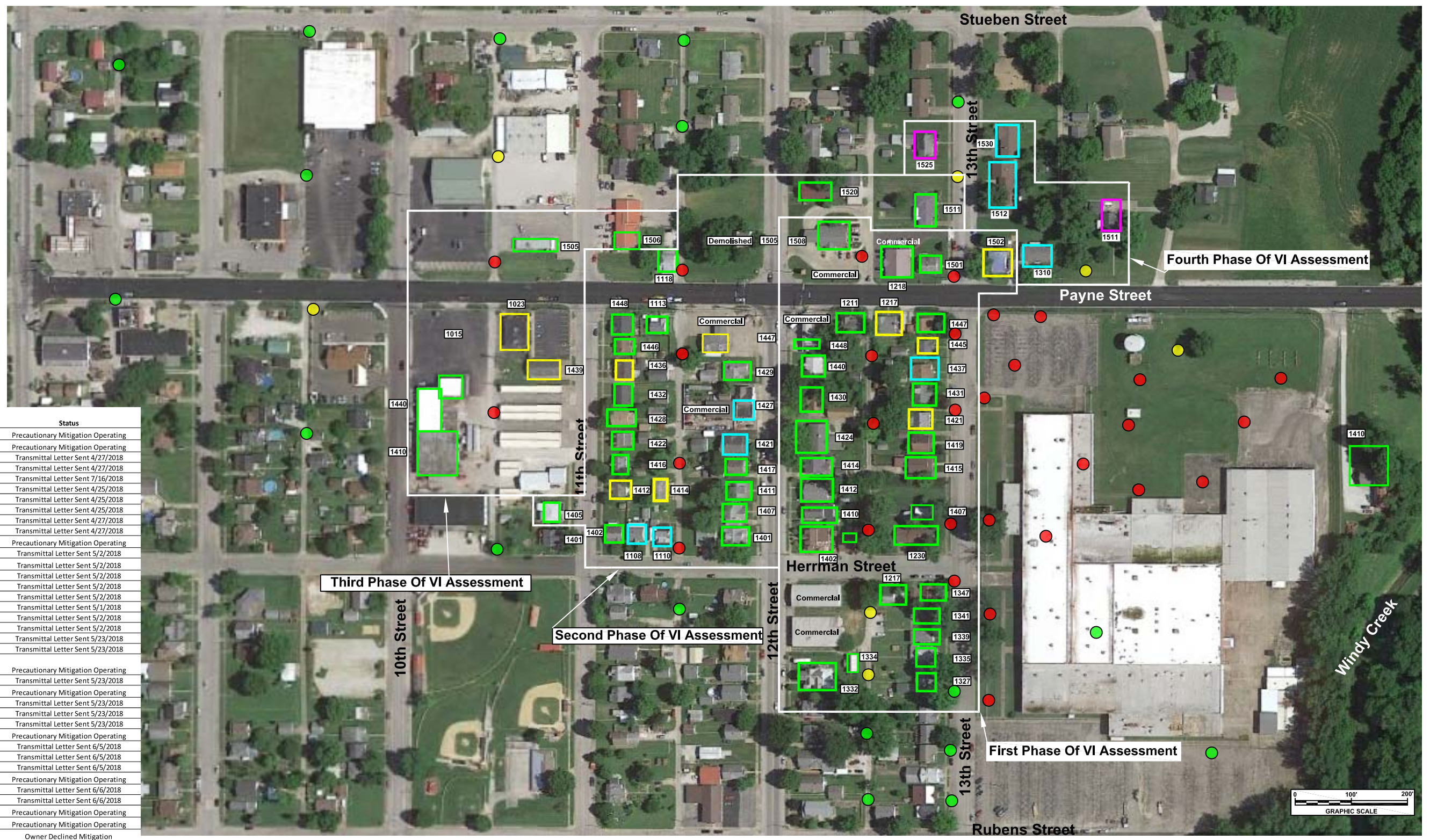


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Status of Vapor Intrusion Work

Design & Consultancy
for natural and
built assets

FIGURE
4



*Likely indoor air source for one or more compounds; ug/m³ = microgram per cubic meter; b=basement; ff=first floor

TABLES



Table 1
Results of the Analysis of Groundwater for Volatile Organic Compounds (ug/l)
GE Tell City
1412 13th Street, Tell City, Indiana

Analyte	Tap Water Screening Level*	Vapor Intrusion Screening Level*	AP 79-D	AP 80-D	AP 83	DUP 1 (=AP 83)
			7/3/2018	7/3/2018	7/3/2018	7/3/2018
Acetone	14000	NA	5.0 J	9.1 J	10.7	5.7 J
Benzene	5	28	0.24 J	0.53	0.21 J	<0.17
Bromobenzene	62	NA	<0.25	<0.25	<0.25	<0.25
Bromochloromethane	83	NA	<0.38	<0.38	<0.38	<0.38
Bromodichloromethane	80	NA	<0.22	<0.22	<0.22	<0.22
Bromoform	80	NA	<0.42	<0.42	<0.42	<0.42
Bromomethane	7.5	NA	<1.4	<1.4	<1.4	<1.4
2-Butanone (MEK)	5600	NA	<4.8	<4.8	<4.8	<4.8
n-Butylbenzene	1000	NA	<0.27	<0.27	<0.27	<0.27
sec-Butylbenzene	2000	NA	<0.27	<0.27	<0.27	<0.27
tert-Butylbenzene	690	NA	<0.34	<0.34	<0.34	<0.34
Carbon tetrachloride	5	6.5	<0.34	<0.34	<0.34	<0.34
Chlorobenzene	100	NA	<0.24	<0.24	<0.24	<0.24
Chloroethane	21000	NA	<0.59	<0.59	<0.59	<0.59
Chloroform	80	NA	<0.29	0.48 J	<0.29	<0.29
Chloromethane	190	NA	<0.53	<0.53	0.66 J	0.62 J
o-Chlorotoluene	240	NA	<0.30	<0.30	<0.30	<0.30
p-Chlorotoluene	250	NA	<0.24	<0.24	<0.24	<0.24
1,2-Dibromo-3-chloropropane	0.2	NA	<0.69	<0.69	<0.69	<0.69
Dibromochloromethane	80	NA	<0.16	<0.16	<0.16	<0.16
1,2-Dibromoethane	0.05	NA	<0.21	<0.21	<0.21	<0.21
1,2-Dichlorobenzene	600	NA	<0.50	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	NA	NA	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	75	NA	<0.50	<0.50	<0.50	<0.50
Dichlorodifluoromethane	200	NA	<1.9	<1.9	<1.9	<1.9
1,1-Dichloroethane	27	130	<0.21	<0.21	<0.21	<0.21
1,2-Dichloroethane	5	50	<0.20	<0.20	<0.20	<0.20
1,1-Dichloroethene	7	300	<0.47	<0.47	<0.47	<0.47
cis-1,2-Dichloroethene	70	NA	<0.50	1.6	2.4	2.5
trans-1,2-Dichloroethene	100	NA	<0.40	0.75 J	<0.40	<0.40
1,2-Dichloropropane	5	NA	<0.24	<0.24	<0.24	<0.24
1,3-Dichloropropane	370	NA	<0.28	<0.28	<0.28	<0.28
2,2-Dichloropropane	NA	NA	<0.30	<0.30	<0.30	<0.30
1,1-Dichloropropene	NA	NA	<0.29	<0.29	<0.29	<0.29
cis-1,3-Dichloropropene	NA	NA	<0.25	<0.25	<0.25	<0.25
trans-1,3-Dichloropropene	NA	NA	<0.22	<0.22	<0.22	<0.22
Ethylbenzene	700	NA	<0.22	0.36 J	<0.22	<0.22
Hexachlorobutadiene	3	NA	<0.34	<0.34	<0.34	<0.34
Isopropylbenzene	450	NA	<0.25	<0.25	<0.25	<0.25
p-Isopropyltoluene	NA	NA	<0.24	<0.24	<0.24	<0.24
Methyl Tert Butyl Ether	140	NA	<0.25	<0.25	<0.25	<0.25
4-Methyl-2-pentanone(MIBK)	1200	NA	<3.0	<3.0	<3.0	<3.0
Methylene bromide	8	NA	<0.45	<0.45	<0.45	<0.45
Methylene chloride	5	NA	<1.0	<1.0	<1.0	<1.0
Naphthalene	1.7	110	<1.1	<1.1	<1.1	<1.1
n-Propylbenzene	660	NA	<0.24	<0.24	<0.24	<0.24
Styrene	100	NA	<0.24	<0.24	<0.24	<0.24
1,1,1,2-Tetrachloroethane	5.7	NA	<0.19	<0.19	<0.19	<0.19
1,1,2,2-Tetrachloroethane	0.76	72	<0.17	<0.17	<0.17	<0.17
Tetrachloroethene	5	110	<0.50	<0.50	0.54 J	0.66 J
Toluene	1000	NA	0.47 J	1.5	0.29 J	0.38 J
1,2,3-Trichlorobenzene	7	NA	<0.50	<0.50	<0.50	<0.50
1,2,4-Trichlorobenzene	70	NA	<0.50	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	200	13000	<0.25	0.57 J	<0.25	<0.25
1,1,2-Trichloroethane	5	11	<0.24	<0.24	<0.24	<0.24
Trichloroethene	5	9.1	<0.27	110	12.7	13
Trichlorofluoromethane	1100	NA	<0.60	<0.60	<0.60	<0.60
1,2,3-Trichloropropane	0.0075	NA	<0.47	<0.47	<0.47	<0.47
1,2,4-Trimethylbenzene	15	NA	<0.24	<0.24	<0.24	<0.24
1,3,5-Trimethylbenzene	120	NA	<0.20	<0.20	<0.20	<0.20
Vinyl chloride	2	2.1	<0.62	<0.62	<0.62	<0.62
m,p-Xylene	190	NA	<0.43	0.59 J	<0.43	<0.43
o-Xylene	190	NA	<0.22	<0.22	<0.22	<0.22
Xylene (total)	10000	NA	<0.22	0.81 J	<0.22	<0.22

*2015 Indiana Remediation Closure Guide

NA = No screening level available

Bold font indicates detected analyte

Highlighted cell indicates screening level exceedance

Table 2
Summary of Structures Evaluated for Vapor Intrusion
GE Tell City
1412 13th Street, Tell City, Indiana

Assigned Number	Sample Date	Results	Status
ID01	6-Apr	SS TCE=4,800 ug/m ³ ; IA<SL	Precautionary Mitigation Operating
ID02	10-Apr	SS TCE=500 ug/m ³ ; IA<SL	Precautionary Mitigation Operating
ID03	13-Apr	SS< SL; IA<SL*	Transmittal Letter Sent 4/27/2018
ID04	13-Apr	SS< SL; IA<SL	Transmittal Letter Sent 4/27/2018
ID04WS	29-Jun	SS<SL; IA<SL*	Transmittal Letter Sent 7/16/2018
ID05	10-Apr	SS< SL; IA<SL*	Transmittal Letter Sent 4/25/2018
ID06	11-Apr	SS< SL; IA<SL	Transmittal Letter Sent 4/25/2018
ID07	12-Apr	SS< SL; IA<SL*	Transmittal Letter Sent 4/25/2018
ID08	13-Apr	SS< SL; IA<SL*	Transmittal Letter Sent 4/27/2018
ID09	13-Apr	SS< SL; IA<SL	Transmittal Letter Sent 4/27/2018
ID10	13-Apr	SS TCE=130ug/m ³ ; IA<SL	Precautionary Mitigation Operating
ID11	20-Apr	SS< SL; IA<SL	Transmittal Letter Sent 5/2/2018
ID12	20-Apr	SS TCE=79ug/m ³ ; IA<SL	Transmittal Letter Sent 5/2/2018
ID13	20-Apr	CS<SL; IA<SL	Transmittal Letter Sent 5/2/2018
ID14	20-Apr	SS< SL; IA<SL	Transmittal Letter Sent 5/2/2018
ID15	20-Apr	SS< SL; IA<SL*	Transmittal Letter Sent 5/2/2018
ID16	20-Apr	SS< SL; IA<SL	Transmittal Letter Sent 5/1/2018
ID17	20-Apr	CS<SL; IA<SL	Transmittal Letter Sent 5/2/2018
ID18	20-Apr	CS<SL; IA<SL	Transmittal Letter Sent 5/2/2018
ID19	9-May	SS< SL; IA<SL*	Transmittal Letter Sent 5/23/2018
ID20	9-May	SS< SL; IA<SL*	Transmittal Letter Sent 5/23/2018
ID21	9-May	SS TCE=2,800; IAb TCE=2.8 ug/m ³ ; IAff TCE <0.17 ug/m ³	Precautionary Mitigation Operating
ID22	8-May	CS<SL; IA<SL*	Transmittal Letter Sent 5/23/2018
ID23	9-May	SS TCE=2,400ug/m ³ ; IA<SL*	Precautionary Mitigation Operating
ID24	9-May	SS<SL; IA<SL	Transmittal Letter Sent 5/23/2018
ID25	10-May	SS< SL; IA<SL*	Transmittal Letter Sent 5/23/2018
ID26	9-May	CS<SL; IA<SL	Transmittal Letter Sent 5/23/2018
ID27	16-May	SS TCE=630 ug/m ³ ; IA<SL*	Precautionary Mitigation Operating
ID28	16-May	SS< SL; IA<SL	Transmittal Letter Sent 6/5/2018
ID29	15-May	CS<SL; IA<SL	Transmittal Letter Sent 6/5/2018
ID30	15-May	SS< SL; IA<SL	Transmittal Letter Sent 6/5/2018
ID31	16-May	SS TCE=2,000 ug/m ³ ; IA<SL*	Precautionary Mitigation Operating
ID32	23-May	CS< SL; IA<SL*	Transmittal Letter Sent 6/6/2018
ID33	23-May	CS< SL; IA<SL*	Transmittal Letter Sent 6/6/2018
ID34	23-May	SS TCE=10,000ug/m ³ ; IA<SL*	Precautionary Mitigation Operating
ID35	23-May	SS TCE=4,000 ug/m ³ ; IA<SL	Precautionary Mitigation Operating
ID36	23-May	SS TCE=1,200ug/m ³ ; IA<SL*	Owner Declined Mitigation
ID37	23-May	SS< SL; IA<SL	Transmittal Letter Sent 6/6/2018
ID38	20-Jun	SS< SL; IA<SL	Transmittal Letter Sent 7/16/2018
ID39	20-Jun	SS< SL; IA<SL	Transmittal Letter Sent 7/16/2018
ID40	20-Jun	SS (basement) TCE=3,400 ug/m ³ ; SS (main) <SL; ; IA<SL	Transmittal Letter Sent 7/16/2018; Precautionary Mitigation
ID41	Postponed		Postponed
ID42	20-Jun	SS TCE=730ug/m ³ ; IA<SL*; CS<SL*	Transmittal Letter Sent 7/16/2018; Precautionary Mitigation
ID43	20-Jun	SS< SL; IA<SL*	Transmittal Letter Sent 7/16/2018
ID44	20-Jun	CS< SL; IA<SL*	Transmittal Letter Sent 7/16/2018
ID45	21-Jun	SS< SL; IA<SL	Transmittal Letter Sent 7/16/2018
ID46	21-Jun	CS<SL; IA<SL	Transmittal Letter Sent 7/16/2018
ID47	21-Jun	SS< SL; IA<SL	Transmittal Letter Sent 7/16/2018
ID48	21-Jun	SS TCE=190 ug/m ³ ; IA<SL	Transmittal Letter Sent 7/16/2018; Design Visit Scheduled
ID49	22-Jun	SS< SL; IA<SL*	Transmittal Letter Sent 7/16/2018
ID50	22-Jun	SS TCE=2,600 ug/m ³ ; IA<SL*	Transmittal Letter Sent 7/16/2018; Design visit scheduled

*Likely indoor air source for one or more compounds; ug/m³ = microgram per cubic meter
b=basement; ff=first Floor; SS=Sub-Slab; IA=Indoor Air; CS=Crawlspace SL=Screening Level TCE=Trichloroethene

Table 3
 Results of the Analysis of Volatile Organic Compounds in Ambient Air (ug/m3)
 GE Tell City Facility
 1412 13th Street, Tell City, Indiana

Compound	Ambient									
	4/9/2018	4/10/2018	4/11/2018	4/13/2018	4/20/2018	5/9/2018	5/18/2018	5/23/2018	6/20/2018	6/20/2018
1,1,1-Trichloroethane	<0.16	<0.19	<0.18	<0.25	<0.17	<0.20	<0.17	0.29	<0.18	<0.21
1,1,1,2-Tetrachloroethane	<0.20	<0.23	<0.23	<0.32	<0.21	<0.24	<0.21	<0.24	<0.23	<0.26
1,1,2-Trichloroethane	<0.16	<0.26	<0.18	<0.25	<0.17	<0.20	<0.17	<0.19	<0.18	<0.21
1,1-Dichloroethane	<0.12	<0.14	<0.14	<0.19	<0.12	<0.14	<0.12	<0.14	<0.13	<0.15
1,1-Dichloroethene	<0.059	<0.068	<0.067	<0.092	<0.016	<0.071	<0.061	<0.070	<0.066	<0.075
1,2-Dibromoethane (EDB)	<0.23	<0.26	<0.26	<0.36	<0.24	<0.28	<0.24	<0.27	<0.26	<0.29
1,2-Dichloroethane	<0.12	<0.14	<0.14	<0.19	<0.12	<0.22	<0.12	<0.14	<0.13	<0.15
1,4-Dichlorobenzene	<0.18	<0.20	<0.20	<0.28	<0.18	<0.14	<0.19	<0.21	<0.20	<0.23
Benzene	0.38	0.94	0.37	<0.37	0.49	<0.28	0.34	0.28	0.26	<0.30
Carbon Tetrachloride	0.43	0.43	0.53	0.40	0.42	0.47	0.48	0.48	0.47	0.46
Chloroethane	<0.20	<0.22	<0.22	<0.31	<0.20	<0.24	<0.20	<0.23	<0.22	<0.25
Chloroform	<0.15	<0.17	<0.17	<0.23	<0.15	<0.17	<0.15	<0.17	<0.16	<0.18
Chloromethane	<1.5	<1.8	<1.8	<2.4	<1.6	<1.8	<1.6	<1.8	<1.7	<2.0
cis-1,2-Dichloroethene	<0.12	<0.14	<0.13	<0.18	<0.12	<0.14	<0.12	<0.14	<0.13	<0.15
Ethyl Benzene	0.13	0.39	0.17	<0.20	0.21	<0.16	0.34	<0.15	0.20	<0.16
Freon 114 (Dichlorotetrafluoroethane)	<0.21	<0.24	<0.24	<0.32	<0.21	<0.25	<0.22	<0.25	<0.23	<0.26
Freon 12 (Dichlorodifluoromethane)	2.2	2.1	2.2	2.0	2.5	2.3	2.3	2.6	2.2	2.1
m,p-Xylene	0.42	1.4	0.60	<0.40	0.69	<0.31	1.8	0.44	0.79	<0.33
Methyl tert-butyl ether	<0.54	<0.62	<0.61	<0.84	<0.55	<0.64	<0.56	<0.64	<0.60	<0.68
o-Xylene	0.18	0.56	0.25	<0.20	0.27	<0.16	0.64	0.19	0.36	<0.16
Tetrachloroethene	<0.20	<0.23	<0.23	<0.31	<0.21	<0.24	<0.21	<0.24	<0.22	<0.26
Toluene	1.8	2.0	1.1	0.76	1.1	0.38	3.4	0.73	0.92	0.58
trans-1,2-Dichloroethene	<0.59	<0.68	<0.67	<0.92	<0.61	<0.71	<0.61	<0.70	<0.66	<0.75
Trichloroethene	<0.16	<0.18	<0.18	<0.25	<0.16	<0.19	<0.17	<0.19	<0.18	<0.20
Vinyl Chloride	<0.038	<0.044	<0.043	<0.059	<0.039	<0.046	<0.040	<0.045	<0.042	<0.048

ug/m³ : micrograms per cubic meter
 Concentrations in bold type indicate detected compound

APPENDIX A

Boring Logs



PROJECT NAME GE Tell City

CLIENT General Electric

WELL NUMBER AP-79D

PROJECT LOCATION 1412 13th Street, Tell City, Indiana

DRILLING CONTRACTOR Chase Environmental

PROJECT NUMBER IN000911

DRILLING METHOD Direct Push

LOCATION Alley W. of 1547 9th Street

STAMP (IF APPLICABLE) AND/OR NOTES

OVA EQUIPMENT PID

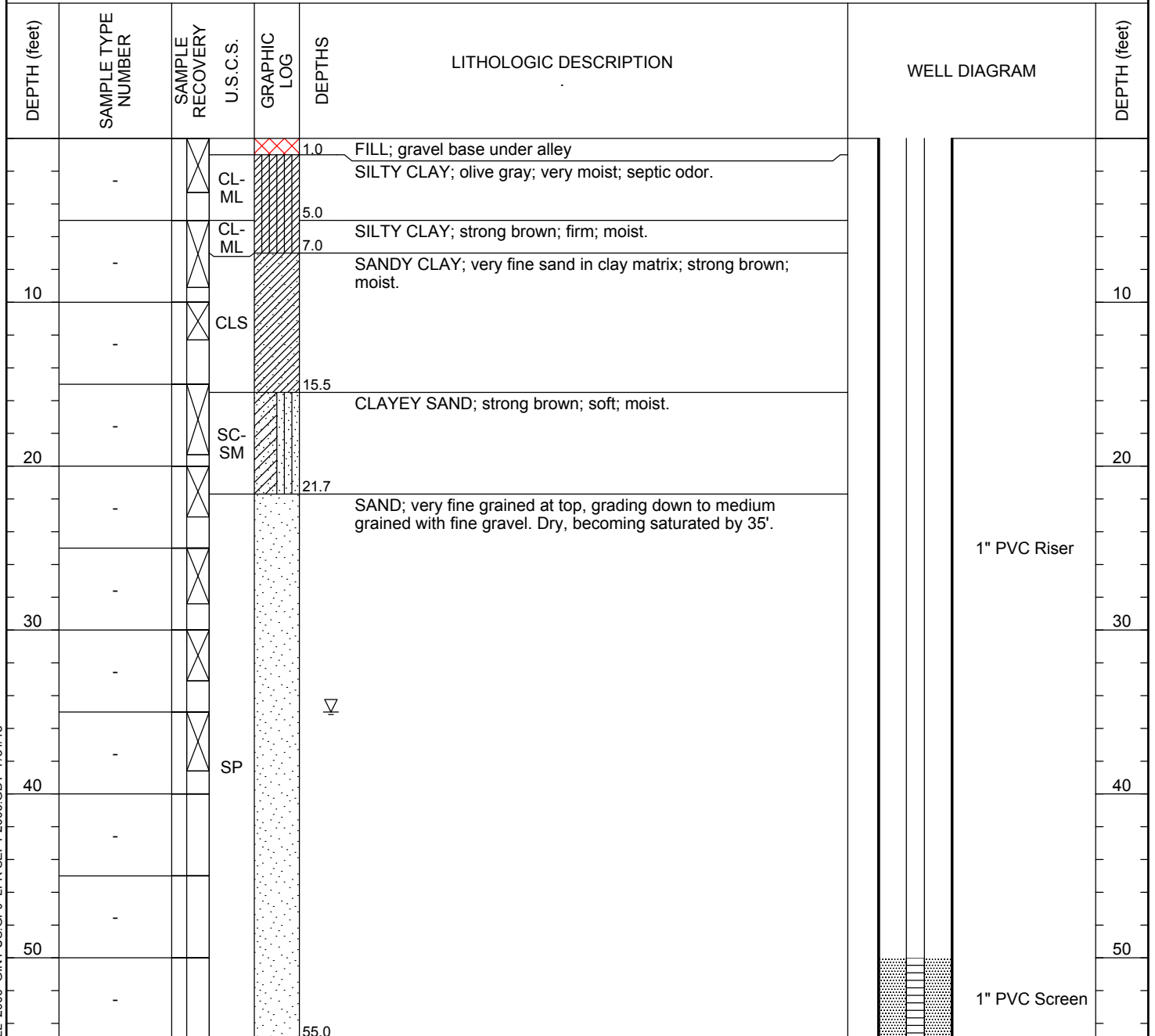
GROUND ELEVATION _____ HOLE DIAMETER 2"

TOP OF CASING ELEVATION Not Surveyed HOLE DEPTH 55.0 ft

▽ FIRST ENCOUNTERED WATER 35.0 ft

STABILIZED WATER ---

LOGGED BY Daniel Petzold DATE 7/3/18



BORING+WELL 2006 GINT US.GPJ LFR SEPT 2006.GDT 7/31/18

APPROVED BY: _____ DATE: _____



PROJECT NAME GE Tell City

CLIENT General Electric

WELL NUMBER AP-80D

PROJECT LOCATION 1412 13th Street, Tell City, Indiana

DRILLING CONTRACTOR Chase Environmental

PROJECT NUMBER IN000911

DRILLING METHOD Direct Push

LOCATION Alley W. of 817 Payne Street

STAMP (IF APPLICABLE) AND/OR NOTES

OVA EQUIPMENT PID

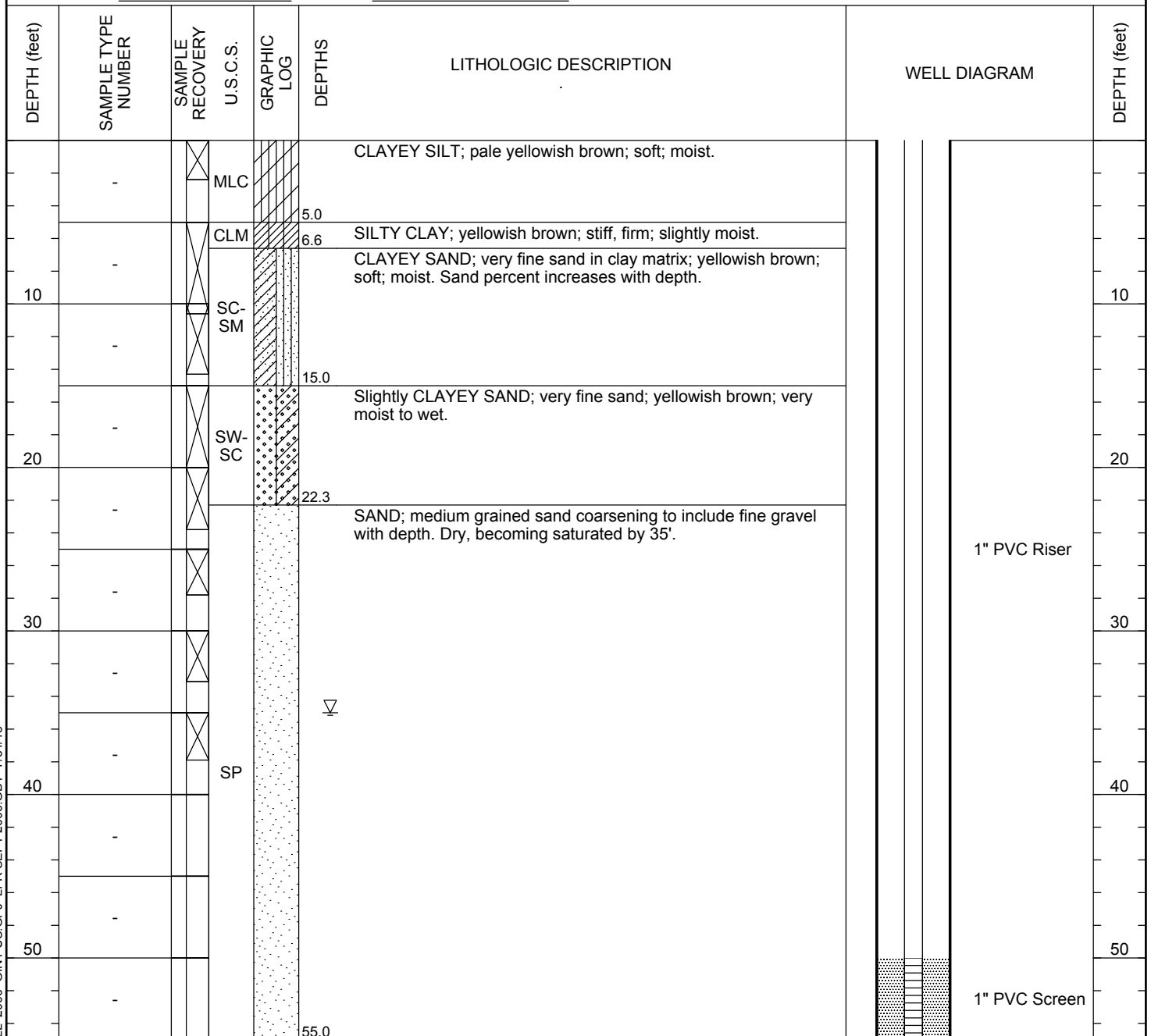
GROUND ELEVATION _____ HOLE DIAMETER 2"

TOP OF CASING ELEVATION Not Surveyed HOLE DEPTH 55.0 ft

▽ FIRST ENCOUNTERED WATER 35.0 ft

STABILIZED WATER ---

LOGGED BY Daniel Petzold DATE 7/3/18



BORING+WELL 2006 GINT US.GPJ LFR SEPT 2006.GDT 7/31/18

APPROVED BY: _____ DATE: _____



PROJECT NAME GE Tell City

CLIENT General Electric

WELL NUMBER AP-83

PROJECT LOCATION 1412 13th Street, Tell City, Indiana

DRILLING CONTRACTOR Chase Environmental

PROJECT NUMBER IN000911

DRILLING METHOD Direct Push

LOCATION 1511 14th Street

STAMP (IF APPLICABLE) AND/OR NOTES

OVA EQUIPMENT PID

GROUND ELEVATION _____ HOLE DIAMETER 2"

TOP OF CASING ELEVATION Not Surveyed HOLE DEPTH 35.0 ft

▽ FIRST ENCOUNTERED WATER 25.7 ft

STABILIZED WATER ---

LOGGED BY Daniel Petzold DATE 7/31/18

DEPTH (feet)	SAMPLE TYPE NUMBER	SAMPLE RECOVERY	U.S.C.S.	GRAPHIC LOG	DEPTHS	LITHOLOGIC DESCRIPTION	WELL DIAGRAM	DEPTH (feet)
			CLM		4.5	SILTY CLAY; yellowish brown; becoming dark brown with depth; moist; silt content increasing with depth.	<p>1" PVC Riser</p> <p>1" PVC Screen</p>	
			SC		10.0	CLAYEY SAND; yellowish brown clay with fine-grained sand; sand content varies, decreases with depth; very moist.		10
10								
			SP			SAND; fine-grained and somewhat laminated at top; becomes medium grained with depth. Dry - saturated at about 31.2'.		20
20								
					▽			
30					31.2			30
			CLM		35.0	SILTY CLAY; with fine sand; gray; moist.		

BORING+WELL 2006 GINT US.GPJ LFR SEPT 2006.GDT 7/31/18

APPROVED BY: _____ DATE: _____



APPENDIX B

Vapor Intrusion Tables and Laboratory Reports



Table 1. Indoor Air Analytical Results for structure ID01

Compound	IDEM Indoor Air Screening Levels	Indoor Air				
		First Floor		Basement		
		IA-01-F	IA-01F	IA-01-B	DUP-1 =IA-01-B	IA-01-B
		Initial	30-Day Post Installation	Initial	Initial	30-Day Post Installation
	4/6/2018	7/9/2018	4/6/2018	4/6/2018	7/9/2018	
1,1,1-Trichloroethane	5,200	< 0.18	<0.20	< 0.18	< 0.18	<0.19
1,1,2,2-Tetrachloroethane	0.48	< 0.22	<0.25	< 0.22	< 0.22	<0.24
1,1,2-Trichloroethane	0.21	< 0.18	<0.20	< 0.18	< 0.18	<0.19
1,1-Dichloroethane	18	< 0.13	<0.15	< 0.13	< 0.13	<0.14
1,1-Dichloroethene	210	< 0.065	<0.072	< 0.065	< 0.064	<0.068
1,2-Dibromoethane (EDB)	0.047	< 0.25	<0.28	< 0.25	< 0.25	<0.26
1,2-Dichloroethane	1.1	0.16	0.31	< 0.13	< 0.13	0.29
1,4-Dichlorobenzene	2.6	< 0.20	<0.22	< 0.20	< 0.19	<0.21
Benzene	3.6	0.47	0.60	0.42	0.41	0.58
Carbon Tetrachloride	4.7	0.44	0.41	0.43	0.40	0.38
Chloroethane (Ethyl Chloride)	10,000	< 0.22	<0.24	< 0.22	< 0.21	<0.23
Chloroform	1.2	0.16 J	0.41	< 0.16	< 0.16	0.41
Chloromethane	94	< 1.7	2.0	< 1.7	< 1.7	2.0
cis-1,2-Dichloroethene	NL	< 0.13	<0.14	< 0.13	< 0.13	<0.14
Ethyl Benzene	11	0.16	0.28	0.14	0.14	0.25
Freon 114 (Dichlorotetrafluoroethane)	NL	< 0.23	<0.25	< 0.23	< 0.23	<0.14
Freon 12 (Dichlorodifluoromethane)	100	2.5	2.6	2.6	2.6	2.6
m,p-Xylene	100	0.44	0.61	0.43	0.41	0.57
Methyl tert-butyl ether	110	< 0.59	<0.66	< 0.59	< 0.58	<0.62
o-Xylene	100	0.18	0.27	0.19	0.18	0.26
Tetrachloroethene	42	< 0.22	<0.25	< 0.22	< 0.22	<0.23
Toluene	5,200	1.2	2.8	1.0	1.1	2.5
trans-1,2-Dichloroethene	NL	< 0.65	<0.72	< 0.65	< 0.64	<0.68
Trichloroethene	2.1	0.25	<0.20	1.0	1.0	<0.18
Vinyl Chloride	1.7	< 0.042	<0.046	< 0.042	< 0.041	<0.044

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Residential Screening Levels for residential indoor air. IDEM considers crawl space air equivalent to indoor air. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

* : Analytical Method: Modified EPA Method TO-15 GC/MS SIM for Indoor Air and Basement Samples using 6-liter Summa canisters

ug/m³ : micrograms per cubic meter

BOLD : Concentrations in **bold** type indicate detected compound

DUP : Duplicate sample

IDEM : Indiana Department of Environmental Management

NL : No screening level established

Table 1. Indoor Air Analytical Results for structure ID02

Compound	IDEM Indoor Air Screening Levels	Indoor Air			
		First Floor		Basement	
		IA-02-F	IA-02F	IA-02-B	IA-02-B
		Initial	30-Day Post Installation	Initial	30-Day Post Installation
		4/10/2018	7/9/2018	4/10/2018	7/9/2018
1,1,1-Trichloroethane	5,200	<0.19	<0.19	<0.21	<0.18
1,1,2,2-Tetrachloroethane	0.48	<0.24	<0.24	<0.27	<0.23
1,1,2-Trichloroethane	0.21	<0.19	<0.19	<0.21	<0.18
1,1-Dichloroethane	18	<0.14	<0.14	<0.16	<0.13
1,1-Dichloroethene	210	<0.070	<0.070	<0.077	<0.066
1,2-Dibromoethane (EDB)	0.047	<0.27	<0.27	<0.30	<0.26
1,2-Dichloroethane	1.1	0.24	0.51	<0.16	0.49
1,4-Dichlorobenzene	2.6	<0.21	0.21	<0.23	0.26
Benzene	3.6	0.68	1.4	0.7	1.1
Carbon Tetrachloride	4.7	0.44	0.41	0.52	0.42
Chloroethane (Ethyl Chloride)	10,000	<0.23	<0.23	<0.26	<0.22
Chloroform	1.2	<<0.17	0.42	<0.19	0.41
Chloromethane	94	<1.8	2.1	<2.0	2.0
cis-1,2-Dichloroethene	NL	<0.14	<0.14	<0.15	<0.13
Ethyl Benzene	11	0.28	0.77	0.48	0.74
Freon 114 (Dichlorotetrafluoroethane)	NL	<0.25	<0.25	<0.27	<0.23
Freon 12 (Dichlorodifluoromethane)	100	2.8	2.4	2.8	2.5
m,p-Xylene	100	0.82	1.5	0.88	1.3
Methyl tert-butyl ether	110	<0.63	<0.64	<0.70	<0.60
o-Xylene	100	0.37	0.57	0.41	0.48
Tetrachloroethene	42	<0.24	<0.24	<0.26	<0.22
Toluene	5,200	1.8	4.3	1.8	4.0
trans-1,2-Dichloroethene	NL	<0.70	<0.70	<0.77	<0.66
Trichloroethene	2.1	<0.19	<0.19	<0.21	<0.18
Vinyl Chloride	1.7	<0.045	<0.045	<0.050	<0.042

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Residential Screening Levels for residential indoor air. IDEM considers crawl space air equivalent to indoor air. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

- Analytical Method: Modified EPA Method TO-15 GC/MS SIM for Indoor Air and Basement Samples using 6-liter Summa canisters

ug/m³ : micrograms per cubic meter

BOLD : Concentrations in **bold** type indicate detected compound

DUP : Duplicate sample

IDEM : Indiana Department of Environmental Management

NL : No screening level established

Table 1. Indoor Air Analytical Results for Structure ID04 Work Shop

Compound	Indoor Air	
	IDEM Indoor Air Screening Levels	IA-04WS
		6/29/2018
1,1,1-Trichloroethane	5,200	2.1
1,1,2,2-Tetrachloroethane	0.48	<1.7
1,1,2-Trichloroethane	0.21	<1.4
1,1-Dichloroethane	18	<1.0
1,1-Dichloroethene	210	<0.49
1,2-Dibromoethane (EDB)	0.047	<1.9
1,2-Dichloroethane	1.1	<1.0
1,4-Dichlorobenzene	2.6	<1.5
Benzene	3.6	16
Carbon Tetrachloride	4.7	<1.6
Chloroethane	10,000	<1.6
Chloroform	1.2	2.7
Chloromethane	94	<13
cis-1,2-Dichloroethene	NL	<0.98
Ethyl Benzene	11	52
Freon 114 (Dichlorotetrafluoroethane)	NL	<1.7
Freon 12 (Dichlorodifluoromethane)	100	2.3
m,p-Xylene	100	200
Methyl tert-butyl ether	110	<4.5
o-Xylene	100	75
Tetrachloroethene	42	140
Toluene	5,200	780
trans-1,2-Dichloroethene	NL	<4.9
Trichloroethene	2.1	<1.3
Vinyl Chloride	1.7	<0.32

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Residential Screening Levels for residential indoor air. IDEM considers crawl space air equivalent to indoor air. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

Analytical Method: Modified EPA Method TO-15 GC/MS

* : SIM for Indoor Air and Basement Samples using 6-liter Summa canisters

ug/m³ : micrograms per cubic meter

BOLD : Concentrations in **bold** type indicate detected compound

DUP : Duplicate sample

IDEM : Indiana Department of Environmental Management

NL : No screening level established

Table 2. Sub-Slab Analytical Results for Structure ID04 Work Shop

Compound	Sub-Slab Screening Levels †	Sub-Slab
		SS-04WS 6/29/2018
1,1,1-Trichloroethane	173,333	<7.0
1,1,2,2-Tetrachloroethane	16	<8.8
1,1,2-Trichloroethane	7	<7.0
1,1-Dichloroethane	600	<5.2
1,1-Dichloroethene	7,000	<5.1
1,2,4-Trichlorobenzene	70	<6.3
1,2,4-Trimethylbenzene	2,100	<6.3
1,2-Dibromoethane (EDB)	1.57	<9.9
1,2-Dichlorobenzene	7,000	<7.8
1,2-Dichloroethane	36.67	<5.2
1,2-Dichloropropane	140	<6.0
1,3,5-Trimethylbenzene	2,100	<6.3
1,3-Butadiene	31.33	<2.8
1,3-Dichlorobenzene	NL	<7.8
1,4-Dichlorobenzene	86.67	<7.8
1,4-Dioxane	186.67	<18
2,2,4-Trimethylpentane	NL	25
2-Butanone (Methyl Ethyl Ketone)	173,333	<15
2-Hexanone	1,033	<21
2-Propanol (Isopropanol)	7,000	<13
3-Chloropropene	33.3	<16
4-Ethyltoluene	NL	<6.3
4-Methyl-2-pentanone	103,333	<5.3
Acetone	1,066,667	30
alpha-Chlorotoluene	NL	<6.7
Benzene	120	<4.1
Bromodichloromethane	25.3	<8.6
Bromoform	867	<13
Bromomethane	173.3	<50
Carbon Disulfide	24,333	<16
Carbon Tetrachloride	156.7	<8.1
Chlorobenzene	1,733	<5.9
Chloroethane	333,333	<14
Chloroform	40	<6.3
Chloromethane	3,133	<27
cis-1,2-Dichloroethene	NL	<5.1
cis-1,3-Dichloropropene	233	<5.8
Cumene	14,000	<6.3
Cyclohexane	210,000	<4.4
Dibromochloromethane	NL	<11
Ethanol	NL	<9.7
Ethyl Benzene	367	<5.6
Freon 11 (Trichlorofluoromethane)	NL	<7.2
Freon 113 (Trichlorotrifluoroethane)	NL	<9.9
Freon 114 (Dichlorotetrafluoroethane)	NL	<9.0
Freon 12 (Dichlorodifluoromethane)	3,333	<6.4
Heptane	14,000	<5.3
Hexachlorobutadiene	43.3	<55
Hexane	24,333	<4.5
m,p-Xylene	3,333	12
Methyl tert-butyl ether	3,667	<19
Methylene Chloride	21,000	<45
o-Xylene	3,333	<5.6
Propylbenzene	33,333	<6.3
Styrene	33,333	<5.5
Tetrachloroethene	1,400	76
Tetrahydrofuran	70,000	<3.8
Toluene	173,333	18
trans-1,2-Dichloroethene	NL	<5.1
trans-1,3-Dichloropropene	233	<5.8
Trichloroethene	70	<6.9
Vinyl Chloride	56.7	<3.3

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Residential Screening Levels for sub-slab soil gas. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

* Analytical Method: Modified EPA Method TO-15 GC/MS for Sub-Slab Samples using 1-liter Summa canisters

† :

Sub-slab screening levels are based on the default attenuation factor of 0.03.

ug/m³ : micrograms per cubic meter
BOLD : Concentrations in **bold** type exceed screening levels
SHADED Shaded Cell Indicates Screening Level Exceedance
 IDEM : Indiana Department of Environmental Management
 NL : No screening level established

Table 1. Indoor Air Analytical Results for Structure ID38

Compound	Indoor Air	
	IDEM Indoor Air Screening Levels	First Floor
		IA-38-F
		6/20/2018
1,1,1-Trichloroethane	22,000	<0.18
1,1,2,2-Tetrachloroethane	2.1	<0.23
1,1,2-Trichloroethane	0.88	<0.18
1,1-Dichloroethane	77	<0.14
1,1-Dichloroethene	880	<0.067
1,2-Dibromoethane (EDB)	0.2	<0.26
1,2-Dichloroethane	4.7	0.55
1,4-Dichlorobenzene	11	0.25
Benzene	16	1.5
Carbon Tetrachloride	20	0.51
Chloroethane	44,000	<0.22
Chloroform	5.3	<0.17
Chloromethane	390	<1.8
cis-1,2-Dichloroethene	NL	<0.13
Ethyl Benzene	49	4.2
Freon 114 (Dichlorotetrafluoroethane)	NL	<0.24
Freon 12 (Dichlorodifluoromethane)	440	2.1
m,p-Xylene	440	16
Methyl tert-butyl ether	180	<0.61
o-Xylene	440	5.6
Tetrachloroethene	180	0.29
Toluene	22,000	21
trans-1,2-Dichloroethene	NL	3.4
Trichloroethene	8.8	<0.18
Vinyl Chloride	28	<0.043

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Screening Levels for commercial indoor air. IDEM considers crawl space air equivalent to indoor air. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

* Analytical Method: Modified EPA Method TO-15 GC/MS SIM for Indoor Air and Basement Samples using 6-liter Summa canisters

ug/m³ : micrograms per cubic meter

BOLD : Concentrations in **bold** type indicate detected compound

DUP : Duplicate sample

IDEM : Indiana Department of Environmental Management

NL : No screening level established

Table 2. Sub-Slab Analytical Results for Structure ID38

Compound	Sub-Slab Screening Levels †	SS-38
		6/20/2018
1,1,1-Trichloroethane	733,333	19
1,1,2,2-Tetrachloroethane	70	<8.2
1,1,2-Trichloroethane	29	<6.5
1,1-Dichloroethane	2,567	<4.8
1,1-Dichloroethene	29,333	<4.8
1,2,4-Trichlorobenzene	293	<36
1,2,4-Trimethylbenzene	8,667	<5.9
1,2-Dibromoethane (EDB)	7	<9.2
1,2-Dichlorobenzene	29,333	<7.2
1,2-Dichloroethane	157	<4.8
1,2-Dichloropropane	600	<5.5
1,3,5-Trimethylbenzene	8,667	<5.9
1,3-Butadiene	31.33	<2.6
1,3-Dichlorobenzene	NL	<7.2
1,4-Dichlorobenzene	367	<7.2
1,4-Dioxane	833	<17
2,2,4-Trimethylpentane	NL	40
2-Butanone (Methyl Ethyl Ketone)	733,333	<14
2-Hexanone	1,033	<20
2-Propanol (Isopropanol)	29,222	<12
3-Chloropropene	33.3	<15
4-Ethyltoluene	NL	<5.9
4-Methyl-2-pentanone	433,333	<4.9
Acetone	4,666,667	58
alpha-Chlorotoluene	NL	<6.2
Benzene	533	<3.8
Bromodichloromethane	110	<8.0
Bromoform	3,667	<12
Bromomethane	13,000	<47
Carbon Disulfide	103,333	<15
Carbon Tetrachloride	667	<7.6
Chlorobenzene	7,333	<5.5
Chloroethane	1,466,667	<13
Chloroform	177	<5.8
Chloromethane	13,000	<25
cis-1,2-Dichloroethene	NL	<4.8
cis-1,3-Dichloropropene	1,033	<5.4
Cumene	14,000	<5.9
Cyclohexane	866,667	<4.1
Dibromochloromethane	NL	<10
Ethanol	NL	160
Ethyl Benzene	1,633	8.2
Freon 11 (Trichlorofluoromethane)	NL	16
Freon 113 (Trichlorotrifluoroethane)	NL	<9.2
Freon 114 (Dichlorotetrafluoroethane)	NL	<8.4
Freon 12 (Dichlorodifluoromethane)	14,667	<5.9
Heptane	14,000	<4.9
Hexachlorobutadiene	187	<51
Hexane	103,333	<4.2
m,p-Xylene	14,667	69
Methyl tert-butyl ether	6,000	<17
Methylene Chloride	86,667	<42
o-Xylene	14,667	24
Propylbenzene	33,333	<5.9
Styrene	146,667	<5.1
Tetrachloroethene	6,000	440
Tetrahydrofuran	293,333	<3.5
Toluene	733,333	69
trans-1,2-Dichloroethene	NL	<4.8
trans-1,3-Dichloropropene	1,033	<5.4
Trichloroethene	293	<6.4
Vinyl Chloride	933	<3.1

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Commercial Screening Levels for sub-slab soil gas. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

* Analytical Method: Modified EPA Method TO-15 GC/MS for Sub-Slab Samples using 1-liter Summa canisters

† :

Sub-slab screening levels are based on the default attenuation factor of 0.03.

ug/m³ : micrograms per cubic meter
 BOLD : Concentrations in **bold** type exceed screening levels
 SHADED Shaded Cell Indicates Screening Level Exceedance
 IDEM : Indiana Department of Environmental Management
 NL : No screening level established

Table 1. Indoor Air Analytical Results for Structure ID39

Compound	Indoor Air	
	IDEM Indoor Air Screening Levels	First Floor
		IA-39-F
		6/20/2018
1,1,1-Trichloroethane	22,000	<0.18
1,1,2,2-Tetrachloroethane	2.1	<0.23
1,1,2-Trichloroethane	0.88	<0.18
1,1-Dichloroethane	77	<0.14
1,1-Dichloroethene	880	<0.067
1,2-Dibromoethane (EDB)	0.2	<0.26
1,2-Dichloroethane	4.7	<0.14
1,4-Dichlorobenzene	11	<0.20
Benzene	16	<0.27
Carbon Tetrachloride	20	0.48
Chloroethane	44,000	<0.22
Chloroform	5.3	<0.16
Chloromethane	390	<1.7
cis-1,2-Dichloroethene	NL	<0.13
Ethyl Benzene	49	0.50
Freon 114 (Dichlorotetrafluoroethane)	NL	<0.24
Freon 12 (Dichlorodifluoromethane)	440	2.2
m,p-Xylene	440	1.2
Methyl tert-butyl ether	180	<0.61
o-Xylene	440	0.46
Tetrachloroethene	180	<0.23
Toluene	22,000	1.8
trans-1,2-Dichloroethene	NL	<0.67
Trichloroethene	8.8	<0.18
Vinyl Chloride	28	<0.043

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Screening Levels for commercial indoor air. IDEM considers crawl space air equivalent to indoor air. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

* Analytical Method: Modified EPA Method TO-15 GC/MS SIM for Indoor Air and Basement Samples using 6-liter Summa canisters

ug/m³ : micrograms per cubic meter

BOLD : Concentrations in **bold** type indicate detected compound

DUP : Duplicate sample

IDEM : Indiana Department of Environmental Management

NL : No screening level established

Table 2. Sub-Slab Analytical Results for Structure ID39

Compound	Sub-Slab Screening Levels †	SS-39
		6/20/2018
1,1,1-Trichloroethane	733,333	440
1,1,1,2-Tetrachloroethane	70	<8.1
1,1,2-Trichloroethane	29	<6.5
1,1-Dichloroethane	2,567	<4.8
1,1-Dichloroethene	29,333	<4.7
1,2,4-Trichlorobenzene	293	<3.5
1,2,4-Trimethylbenzene	8,667	<5.8
1,2-Dibromoethane (EDB)	7	<9.1
1,2-Dichlorobenzene	29,333	<7.1
1,2-Dichloroethane	157	<4.8
1,2-Dichloropropane	600	<5.5
1,3,5-Trimethylbenzene	8,667	<5.8
1,3-Butadiene	31.33	<2.6
1,3-Dichlorobenzene	NL	<7.1
1,4-Dichlorobenzene	367	<7.1
1,4-Dioxane	833	<17
2,2,4-Trimethylpentane	NL	22
2-Butanone (Methyl Ethyl Ketone)	733,333	<14
2-Hexanone	1,033	<19
2-Propanol (Isopropanol)	29,222	<12
3-Chloropropene	33.3	<15
4-Ethyltoluene	NL	<5.8
4-Methyl-2-pentanone	433,333	<4.8
Acetone	4,666,667	43
alpha-Chlorotoluene	NL	<6.1
Benzene	533	<3.8
Bromodichloromethane	110	<7.9
Bromoform	3,667	<12
Bromomethane	13,000	<46
Carbon Disulfide	103,333	<15
Carbon Tetrachloride	667	<7.4
Chlorobenzene	7,333	<5.4
Chloroethane	1,466,667	<12
Chloroform	177	<5.8
Chloromethane	13,000	<24
cis-1,2-Dichloroethene	NL	<4.7
cis-1,3-Dichloropropene	1,033	<5.4
Cumene	14,000	<5.8
Cyclohexane	866,667	<4.1
Dibromochloromethane	NL	<10
Ethanol	NL	90
Ethyl Benzene	1,633	<5.1
Freon 11 (Trichlorofluoromethane)	NL	<6.6
Freon 113 (Trichlorotrifluoroethane)	NL	<9.1
Freon 114 (Dichlorotetrafluoroethane)	NL	<8.3
Freon 12 (Dichlorodifluoromethane)	14,667	<5.9
Heptane	14,000	<4.8
Hexachlorobutadiene	187	<50
Hexane	103,333	<4.2
m,p-Xylene	14,667	34
Methyl tert-butyl ether	6,000	<17
Methylene Chloride	86,667	<41
o-Xylene	14,667	11
Propylbenzene	33,333	<5.8
Styrene	146,667	<5.0
Tetrachloroethene	6,000	<8.0
Tetrahydrofuran	293,333	<3.5
Toluene	733,333	34
trans-1,2-Dichloroethene	NL	<4.7
trans-1,3-Dichloropropene	1,033	<5.4
Trichloroethene	293	<6.4
Vinyl Chloride	933	<3.0

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Commercial Screening Levels for sub-slab soil gas. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

* : Analytical Method: Modified EPA Method TO-15 GC/MS for Sub-Slab Samples using 1-liter Summa canisters

† : Sub-slab screening levels are based on the default attenuation factor of 0.03.

ug/m³ : micrograms per cubic meter

BOLD : Concentrations in **bold** type exceed screening levels

SHADED Shaded Cell Indicates Screening Level Exceedance

IDEM : Indiana Department of Environmental Management

NL : No screening level established

Table 1. Indoor Air Analytical Results for Structure ID40

Compound	Indoor Air	
	IDEM Indoor Air Screening Levels	First Floor
		IA-40-F
		6/20/2018
1,1,1-Trichloroethane	22,000	<0.18
1,1,2,2-Tetrachloroethane	2.1	<0.22
1,1,2-Trichloroethane	0.88	<0.18
1,1-Dichloroethane	77	<0.13
1,1-Dichloroethene	880	<0.064
1,2-Dibromoethane (EDB)	0.2	<0.25
1,2-Dichloroethane	4.7	<0.13
1,4-Dichlorobenzene	11	0.29
Benzene	16	<0.26
Carbon Tetrachloride	20	0.53
Chloroethane	44,000	<0.21
Chloroform	5.3	0.42
Chloromethane	390	<1.7
cis-1,2-Dichloroethene	NL	<0.13
Ethyl Benzene	49	1.20
Freon 114 (Dichlorotetrafluoroethane)	NL	<0.23
Freon 12 (Dichlorodifluoromethane)	440	2.1
m,p-Xylene	440	2.8
Methyl tert-butyl ether	180	<0.58
o-Xylene	440	0.98
Tetrachloroethene	180	<0.22
Toluene	22,000	2.7
trans-1,2-Dichloroethene	NL	<0.64
Trichloroethene	8.8	0.18
Vinyl Chloride	28	<0.041

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Screening Levels for commercial indoor air. IDEM considers crawl space air equivalent to indoor air. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

* Analytical Method: Modified EPA Method TO-15 GC/MS SIM for Indoor Air and Basement Samples using 6-liter Summa canisters

ug/m³ : micrograms per cubic meter

BOLD : Concentrations in **bold** type indicate detected compound

DUP : Duplicate sample

IDEM : Indiana Department of Environmental Management

NL : No screening level established

Table 2. Sub-Slab Analytical Results for Structure ID40

Compound	Sub-Slab Screening Levels †	Sub-Slab	
		SS-40-B	SS-40
		6/20/2018	6/20/2018
1,1,1-Trichloroethane	733,333	12	<5.7
1,1,2,2-Tetrachloroethane	70	<11	<7.2
1,1,2-Trichloroethane	29	<8.7	<5.7
1,1-Dichloroethane	2,567	<6.4	<4.2
1,1-Dichloroethene	29,333	<6.3	<4.2
1,2,4-Trichlorobenzene	293	<4.7	<3.1
1,2,4-Trimethylbenzene	8,667	<7.8	<5.2
1,2-Dibromoethane (EDB)	7	<12	<8.1
1,2-Dichlorobenzene	29,333	<9.6	<6.3
1,2-Dichloroethane	157	<6.4	<4.2
1,2-Dichloropropane	600	<7.4	<4.8
1,3,5-Trimethylbenzene	8,667	<7.8	<5.2
1,3-Butadiene	31.33	<3.5	<2.3
1,3-Dichlorobenzene	NL	<9.6	<6.3
1,4-Dichlorobenzene	367	<9.6	<6.3
1,4-Dioxane	833	<23	<15
2,2,4-Trimethylpentane	NL	16	14
2-Butanone (Methyl Ethyl Ketone)	733,333	<19	<12
2-Hexanone	1,033	<26	<17
2-Propanol (Isopropanol)	29,222	16	<10
3-Chloropropene	33.3	<20	<13
4-Ethyltoluene	NL	<7.8	<5.2
4-Methyl-2-pentanone	433,333	<6.5	<4.3
Acetone	4,666,667	200	40
alpha-Chlorotoluene	NL	<8.2	<5.4
Benzene	533	<5.1	<3.4
Bromodichloromethane	110	<11	<7.0
Bromoform	3,667	<16	<11
Bromomethane	13,000	<62	<41
Carbon Disulfide	103,333	<20	<13
Carbon Tetrachloride	667	<10	<6.6
Chlorobenzene	7,333	<7.3	<4.8
Chloroethane	1,466,667	<17	<11
Chloroform	177	12	<5.1
Chloromethane	13,000	<33	<22
cis-1,2-Dichloroethene	NL	<6.3	<4.2
cis-1,3-Dichloropropene	1,033	<7.2	<4.8
Cumene	14,000	<7.8	<5.2
Cyclohexane	866,667	<5.5	<3.6
Dibromochloromethane	NL	<14	<8.9
Ethanol	NL	180	67
Ethyl Benzene	1,633	<6.9	<4.6
Freon 11 (Trichlorofluoromethane)	NL	<9.0	<5.9
Freon 113 (Trichlorotrifluoroethane)	NL	<12	<8.0
Freon 114 (Dichlorotetrafluoroethane)	NL	<11	<7.3
Freon 12 (Dichlorodifluoromethane)	14,667	<7.9	<5.2
Heptane	14,000	<6.5	<4.3
Hexachlorobutadiene	187	<68	<45
Hexane	103,333	<5.6	<3.7
m,p-Xylene	14,667	29	22
Methyl tert-butyl ether	6,000	<23	<15
Methylene Chloride	86,667	<55	<36
o-Xylene	14,667	11	7.5
Propylbenzene	33,333	<7.8	<5.2
Styrene	146,667	<6.8	<4.5
Tetrachloroethene	6,000	59	<7.1
Tetrahydrofuran	293,333	<4.7	<3.1
Toluene	733,333	24	29
trans-1,2-Dichloroethene	NL	<6.3	<4.2
trans-1,3-Dichloropropene	1,033	<7.2	<4.8
Trichloroethene	293	3,400	45
Vinyl Chloride	933	<4.1	<2.7

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Commercial Screening Levels for sub-slab soil gas. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

* Analytical Method: Modified EPA Method TO-15 GC/MS for Sub-Slab Samples using 1-liter Summa canisters

† :

Sub-slab screening levels are based on the default attenuation factor of 0.03.

ug/m³ : micrograms per cubic meter

BOLD : Concentrations in bold type exceed screening levels

SHADED Shaded Cell Indicates Screening Level Exceedance

IDEM : Indiana Department of Environmental Management

NL : No screening level established

Table 1. Indoor Air Analytical Results for Structure ID42

Compound	Indoor Air			
	IDEM Indoor Air Screening Levels	Basement	Crawl Space	First Floor
		IA-42-B	CS-42	IA-42-F
		6/20/2018	6/20/2018	6/20/2018
1,1,1-Trichloroethane	5,200	<0.17	<0.19	<0.18
1,1,2,2-Tetrachloroethane	0.48	<0.22	<0.24	<0.23
1,1,2-Trichloroethane	0.21	<0.17	<0.19	<0.18
1,1-Dichloroethane	18	<0.13	<0.14	<0.13
1,1-Dichloroethene	210	<0.063	<0.070	<0.066
1,2-Dibromoethane (EDB)	0.047	<0.24	<0.27	<0.26
1,2-Dichloroethane	1.1	1.6	1.6	2.3
1,4-Dichlorobenzene	2.6	<0.19	0.62	<0.20
Benzene	3.6	2.7	2.8	3.8
Carbon Tetrachloride	4.7	0.53	0.57	0.57
Chloroethane	10,000	<0.21	<0.23	<0.22
Chloroform	1.2	0.92	0.76	0.86
Chloromethane	94	3.4	<1.8	4.5
cis-1,2-Dichloroethene	NL	<0.13	<0.14	<0.13
Ethyl Benzene	11	0.99	1.20	1.8
Freon 114 (Dichlorotetrafluoroethane)	NL	<0.22	0.51	<0.23
Freon 12 (Dichlorodifluoromethane)	100	2.2	2.1	2.2
m,p-Xylene	100	2.8	4.6	5.1
Methyl tert-butyl ether	110	<0.58	<0.64	<0.60
o-Xylene	100	0.79	1.4	1.3
Tetrachloroethene	42	17	9.2	11
Toluene	5,200	4.8	7.7	7.8
trans-1,2-Dichloroethene	NL	<0.63	<0.70	<0.66
Trichloroethene	2.1	<0.17	<0.19	<0.18
Vinyl Chloride	1.7	<0.041	<0.045	<0.042

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Residential Screening Levels for residential indoor air. IDEM considers crawl space air equivalent to indoor air. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

- * Analytical Method: Modified EPA Method TO-15 GC/MS SIM for Indoor Air and Basement Samples using 6-liter Summa canisters

ug/m³ : micrograms per cubic meter

BOLD : Concentrations in **bold** type indicate detected compound

DUP : Duplicate sample

IDEM : Indiana Department of Environmental Management

NL : No screening level established

Table 2. Sub-Slab Analytical Results for Structure ID42

Compound	Sub-Slab Screening Levels †	Sub-Slab
		SS-42 6/20/2018
1,1,1-Trichloroethane	173,333	8.1
1,1,2,2-Tetrachloroethane	16	<7.9
1,1,2-Trichloroethane	7	<6.3
1,1-Dichloroethane	600	<4.7
1,1-Dichloroethene	7,000	<4.6
1,2,4-Trichlorobenzene	70	<5.7
1,2,4-Trimethylbenzene	2,100	<5.7
1,2-Dibromoethane (EDB)	1.57	<8.9
1,2-Dichlorobenzene	7,000	<6.9
1,2-Dichloroethane	36.67	<4.7
1,2-Dichloropropane	140	<5.3
1,3,5-Trimethylbenzene	2,100	<5.7
1,3-Butadiene	31.33	<2.6
1,3-Dichlorobenzene	NL	<6.9
1,4-Dichlorobenzene	86.67	<6.9
1,4-Dioxane	186.67	<17
2,2,4-Trimethylpentane	NL	8.9
2-Butanone (Methyl Ethyl Ketone)	173,333	<14
2-Hexanone	1,033	<19
2-Propanol (Isopropanol)	7,000	88
3-Chloropropene (Allyl Chloride)	33.3	<14
4-Ethyltoluene	NL	<5.7
4-Methyl-2-pentanone	103,333	<4.7
Acetone	1,066,667	40
alpha-Chlorotoluene	NL	<6.0
Benzene	120	<3.7
Bromodichloromethane	25.3	<7.7
Bromoform	867	<12
Bromomethane	173.3	<45
Carbon Disulfide	24,333	<14
Carbon Tetrachloride	156.7	8.2
Chlorobenzene	1,733	<5.3
Chloroethane	333,333	<12
Chloroform	40	<5.6
Chloromethane	3,133	<24
cis-1,2-Dichloroethene	NL	<4.6
cis-1,3-Dichloropropene	233	<5.2
Cumene	14,000	<5.7
Cyclohexane	210,000	<4.0
Dibromochloromethane	NL	<9.8
Ethanol	NL	160
Ethyl Benzene	367	<5.0
Freon 11 (Trichlorofluoromethane)	NL	<6.5
Freon 113 (Trichlorotrifluoroethane)	NL	<8.8
Freon 114 (Dichlorotetrafluoroethane)	NL	<8.1
Freon 12 (Dichlorodifluoromethane)	3,333	6.1
Heptane	14,000	<4.7
Hexachlorobutadiene	43.3	<49
Hexane	24,333	<4.1
m,p-Xylene	3,333	21
Methyl tert-butyl ether	3,667	<17
Methylene Chloride	21,000	<40
o-Xylene	3,333	7.5
Propylbenzene	33,333	<5.7
Styrene	33,333	<4.9
Tetrachloroethene	1,400	<7.8
Tetrahydrofuran	70,000	<3.4
Toluene	173,333	24
trans-1,2-Dichloroethene	NL	9.1
trans-1,3-Dichloropropene	233	<5.2
Trichloroethene	70	730
Vinyl Chloride	56.7	<3.0

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Residential Screening Levels for sub-slab soil gas. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

* Analytical Method: Modified EPA Method TO-15 GC/MS for Sub-Slab Samples using 1-liter Summa canisters

† :

Sub-slab screening levels are based on the default attenuation factor of 0.03.

ug/m³ : micrograms per cubic meter

BOLD : Concentrations in **bold** type exceed screening levels

SHADED Shaded Cell Indicates Screening Level Exceedance

IDEM : Indiana Department of Environmental Management

NL : No screening level established

Table 1. Indoor Air Analytical Results for Structure ID43

Compound	IDEM Indoor Air Screening Levels	Indoor Air	
		Basement	First Floor
		IA-43-B	IA-43-F
		6/20/2018	6/20/2018
1,1,1-Trichloroethane	5,200	<0.20	<0.23
1,1,2,2-Tetrachloroethane	0.48	<0.25	<0.29
1,1,2-Trichloroethane	0.21	<0.20	<0.23
1,1-Dichloroethane	18	<0.15	<0.17
1,1-Dichloroethene	210	0.44	<0.084
1,2-Dibromoethane (EDB)	0.047	<0.28	<0.32
1,2-Dichloroethane	1.1	1.0	2.1
1,4-Dichlorobenzene	2.6	0.75	1.2
Benzene	3.6	0.34	0.47
Carbon Tetrachloride	4.7	0.63	0.60
Chloroethane	10,000	<0.24	<0.28
Chloroform	1.2	0.29	0.67
Chloromethane	94	<1.9	<2.2
cis-1,2-Dichloroethene	NL	<0.14	<0.17
Ethyl Benzene	11	0.26	0.45
Freon 114 (Dichlorotetrafluoroethane)	NL	<0.25	<0.30
Freon 12 (Dichlorodifluoromethane)	100	2.3	2.3
m,p-Xylene	100	0.7	1.4
Methyl tert-butyl ether	110	<0.66	<0.76
o-Xylene	100	0.32	0.57
Tetrachloroethene	42	<0.25	<0.29
Toluene	5,200	2.0	4.4
trans-1,2-Dichloroethene	NL	<0.72	<0.84
Trichloroethene	2.1	0.98	<0.23
Vinyl Chloride	1.7	<0.046	<0.054

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Residential Screening Levels for residential indoor air. IDEM considers crawl space air equivalent to indoor air. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

- * Analytical Method: Modified EPA Method TO-15 GC/MS SIM for Indoor Air and Basement Samples using 6-liter Summa canisters

ug/m³ : micrograms per cubic meter

BOLD : Concentrations in **bold** type indicate detected compound

DUP : Duplicate sample

IDEM : Indiana Department of Environmental Management

NL : No screening level established

Table 2. Sub-Slab Analytical Results for Structure ID43

Compound	Sub-Slab Screening Levels †	Sub-Slab
		SS-43 6/20/2018
1,1,1-Trichloroethane	173,333	<6.6
1,1,2,2-Tetrachloroethane	16	<8.3
1,1,2-Trichloroethane	7	<6.6
1,1-Dichloroethane	600	<4.9
1,1-Dichloroethene	7,000	<4.8
1,2,4-Trichlorobenzene	70	<36
1,2,4-Trimethylbenzene	2,100	<6.0
1,2-Dibromoethane (EDB)	1.57	<9.3
1,2-Dichlorobenzene	7,000	<7.3
1,2-Dichloroethane	36.67	<4.9
1,2-Dichloropropane	140	<5.6
1,3,5-Trimethylbenzene	2,100	<6.0
1,3-Butadiene	31.33	<2.7
1,3-Dichlorobenzene	NL	<7.3
1,4-Dichlorobenzene	86.67	<7.3
1,4-Dioxane	186.67	<18
2,2,4-Trimethylpentane	NL	10
2-Butanone (Methyl Ethyl Ketone)	173,333	<14
2-Hexanone	1,033	<20
2-Propanol (Isopropanol)	7,000	<12
3-Chloropropene (Allyl Chloride)	33.3	<15
4-Ethyltoluene	NL	<6.0
4-Methyl-2-pentanone	103,333	<5.0
Acetone	1,066,667	36
alpha-Chlorotoluene	NL	<6.3
Benzene	120	<3.9
Bromodichloromethane	25.3	<8.1
Bromoform	867	<12
Bromomethane	173.3	<47
Carbon Disulfide	24,333	<15
Carbon Tetrachloride	156.7	<7.6
Chlorobenzene	1,733	<5.6
Chloroethane	333,333	<13
Chloroform	40	<5.9
Chloromethane	3,133	<25
cis-1,2-Dichloroethene	NL	<4.8
cis-1,3-Dichloropropene	233	<5.5
Cumene	14,000	<6.0
Cyclohexane	210,000	<4.2
Dibromochloromethane	NL	<10
Ethanol	NL	33
Ethyl Benzene	367	<5.3
Freon 11 (Trichlorofluoromethane)	NL	<6.8
Freon 113 (Trichlorotrifluoroethane)	NL	<9.3
Freon 114 (Dichlorotetrafluoroethane)	NL	<8.5
Freon 12 (Dichlorodifluoromethane)	3,333	<6.0
Heptane	14,000	<5.0
Hexachlorobutadiene	43.3	<52
Hexane	24,333	<4.3
m,p-Xylene	3,333	26
Methyl tert-butyl ether	3,667	<18
Methylene Chloride	21,000	<42
o-Xylene	3,333	9.0
Propylbenzene	33,333	<6.0
Styrene	33,333	<5.2
Tetrachloroethene	1,400	12
Tetrahydrofuran	70,000	<3.6
Toluene	173,333	22
trans-1,2-Dichloroethene	NL	<4.8
trans-1,3-Dichloropropene	233	<5.5
Trichloroethene	70	<6.5
Vinyl Chloride	56.7	<3.1

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Residential Screening Levels for sub-slab soil gas. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

* Analytical Method: Modified EPA Method TO-15 GC/MS for Sub-Slab Samples using 1-liter Summa canisters

† :

Sub-slab screening levels are based on the default attenuation factor of 0.03.

ug/m³ : micrograms per cubic meter

BOLD : Concentrations in **bold** type exceed screening levels

SHADED Shaded Cell Indicates Screening Level Exceedance

IDEM : Indiana Department of Environmental Management

NL : No screening level established

Table 1. Indoor Air Analytical Results for Structure ID44

Compound	IDEM Indoor Air Screening Levels	Indoor Air	
		Basement	First Floor
		IA-44-B	IA-44-F
		6/21/2018	6/21/2018
1,1,1-Trichloroethane	5,200	<0.41	<0.40
1,1,2,2-Tetrachloroethane	0.48	<0.52	<0.50
1,1,2-Trichloroethane	0.21	<0.41	<0.40
1,1-Dichloroethane	18	<0.31	<0.29
1,1-Dichloroethene	210	<0.15	<0.14
1,2-Dibromoethane (EDB)	0.047	<0.58	<0.56
1,2-Dichloroethane	1.1	1.4	1.5
1,4-Dichlorobenzene	2.6	<0.46	<0.44
Benzene	3.6	3.3	3.6
Carbon Tetrachloride	4.7	<0.48	0.46
Chloroethane	10,000	<0.50	<0.48
Chloroform	1.2	0.50	0.50
Chloromethane	94	5.5	5.9
cis-1,2-Dichloroethene	NL	<0.30	<0.29
Ethyl Benzene	11	1.20	1.3
Freon 114 (Dichlorotetrafluoroethane)	NL	<0.53	<0.51
Freon 12 (Dichlorodifluoromethane)	100	2.1	2.2
m,p-Xylene	100	4.2	4.6
Methyl tert-butyl ether	110	<1.4	<1.3
o-Xylene	100	1.1	1.20
Tetrachloroethene	42	<0.52	<0.49
Toluene	5,200	9.0	10
trans-1,2-Dichloroethene	NL	<1.5	<1.4
Trichloroethene	2.1	<0.41	<0.39
Vinyl Chloride	1.7	<0.097	<0.093

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Residential Screening Levels for residential indoor air. IDEM considers crawl space air equivalent to indoor air. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

- * Analytical Method: Modified EPA Method TO-15 GC/MS SIM for Indoor Air and Basement Samples using 6-liter Summa canisters

ug/m³ : micrograms per cubic meter

BOLD : Concentrations in **bold** type indicate detected compound

DUP : Duplicate sample

IDEM : Indiana Department of Environmental Management

NL : No screening level established

Table 2. Sub-Slab Analytical Results for Structure ID44

Compound	Sub-Slab Screening Levels †	Sub-Slab
		SS-44 6/21/2018
1,1,1-Trichloroethane	173,333	<6.3
1,1,1,2-Tetrachloroethane	16	<8.0
1,1,2-Trichloroethane	7	<6.3
1,1-Dichloroethane	600	<4.7
1,1-Dichloroethene	7,000	<4.6
1,2,4-Trichlorobenzene	70	<34
1,2,4-Trimethylbenzene	2,100	<5.7
1,2-Dibromoethane (EDB)	1.57	<8.9
1,2-Dichlorobenzene	7,000	<7.0
1,2-Dichloroethane	36.67	<4.7
1,2-Dichloropropane	140	<5.4
1,3,5-Trimethylbenzene	2,100	<5.7
1,3-Butadiene	31.33	<2.6
1,3-Dichlorobenzene	NL	<7.0
1,4-Dichlorobenzene	86.67	<7.0
1,4-Dioxane	186.67	<17
2,2,4-Trimethylpentane	NL	30
2-Butanone (Methyl Ethyl Ketone)	173,333	<14
2-Hexanone	1,033	<19
2-Propanol (Isopropanol)	7,000	<11
3-Chloropropene (Allyl Chloride)	33.3	<14
4-Ethyltoluene	NL	<5.7
4-Methyl-2-pentanone	103,333	<4.8
Acetone	1,066,667	<28
alpha-Chlorotoluene	NL	<6.0
Benzene	120	<3.7
Bromodichloromethane	25.3	<7.8
Bromoform	867	<12
Bromomethane	173.3	<45
Carbon Disulfide	24,333	<14
Carbon Tetrachloride	156.7	<7.3
Chlorobenzene	1,733	<5.3
Chloroethane	333,333	<12
Chloroform	40	<5.7
Chloromethane	3,133	<24
cis-1,2-Dichloroethene	NL	<4.6
cis-1,3-Dichloropropene	233	<5.3
Cumene	14,000	<5.7
Cyclohexane	210,000	<4.0
Dibromochloromethane	NL	<9.9
Ethanol	NL	36
Ethyl Benzene	367	<5.0
Freon 11 (Trichlorofluoromethane)	NL	<6.5
Freon 113 (Trichlorotrifluoroethane)	NL	<8.9
Freon 114 (Dichlorotetrafluoroethane)	NL	<8.1
Freon 12 (Dichlorodifluoromethane)	3,333	<5.7
Heptane	14,000	<4.8
Hexachlorobutadiene	43.3	<49
Hexane	24,333	<4.1
m,p-Xylene	3,333	35
Methyl tert-butyl ether	3,667	<17
Methylene Chloride	21,000	<40
o-Xylene	3,333	12.0
Propylbenzene	33,333	<5.7
Styrene	33,333	<4.9
Tetrachloroethene	1,400	<7.9
Tetrahydrofuran	70,000	<3.4
Toluene	173,333	44
trans-1,2-Dichloroethene	NL	<4.6
trans-1,3-Dichloropropene	233	<5.3
Trichloroethene	70	<6.2
Vinyl Chloride	56.7	<3.0

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Residential Screening Levels for sub-slab soil gas. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

* Analytical Method: Modified EPA Method TO-15 GC/MS for Sub-Slab Samples using 1-liter Summa canisters

† :

Sub-slab screening levels are based on the default attenuation factor of 0.03.

ug/m³ : micrograms per cubic meter

BOLD : Concentrations in **bold** type exceed screening levels

SHADED Shaded Cell Indicates Screening Level Exceedance

IDEM : Indiana Department of Environmental Management

NL : No screening level established

Table 1. Indoor Air Analytical Results for Structure ID45

Compound	Indoor Air	
	IDEM Indoor Air Screening Levels	First Floor
		IA-45-F
		6/21/2018
1,1,1-Trichloroethane	22,000	<0.20
1,1,2,2-Tetrachloroethane	2.1	<0.25
1,1,2-Trichloroethane	0.88	<0.20
1,1-Dichloroethane	77	<0.15
1,1-Dichloroethene	880	<0.072
1,2-Dibromoethane (EDB)	0.2	<0.28
1,2-Dichloroethane	4.7	0.3
1,4-Dichlorobenzene	11	<0.22
Benzene	16	0.37
Carbon Tetrachloride	20	0.52
Chloroethane	44,000	<0.24
Chloroform	5.3	0.21
Chloromethane	390	<1.9
cis-1,2-Dichloroethene	NL	<0.14
Ethyl Benzene	49	0.79
Freon 114 (Dichlorotetrafluoroethane)	NL	<0.25
Freon 12 (Dichlorodifluoromethane)	440	2.1
m,p-Xylene	440	2.3
Methyl tert-butyl ether	180	<0.66
o-Xylene	440	0.80
Tetrachloroethene	180	0.42
Toluene	22,000	3.1
trans-1,2-Dichloroethene	NL	<0.72
Trichloroethene	8.8	<0.20
Vinyl Chloride	28	<0.046

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Screening Levels for commercial indoor air. IDEM considers crawl space air equivalent to indoor air. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

* Analytical Method: Modified EPA Method TO-15 GC/MS SIM for Indoor Air and Basement Samples using 6-liter Summa canisters

ug/m³ : micrograms per cubic meter

BOLD : Concentrations in **bold** type indicate detected compound

DUP : Duplicate sample

IDEM : Indiana Department of Environmental Management

NL : No screening level established

Table 2. Sub-Slab Analytical Results for Structure ID45

Compound	Sub-Slab Screening Levels †	Sub-Slab
		SS-45 6/21/2018
1,1,1-Trichloroethane	733,333	<6.3
1,1,2,2-Tetrachloroethane	70	<7.9
1,1,2-Trichloroethane	29	<6.3
1,1-Dichloroethane	2,567	<4.7
1,1-Dichloroethene	29,333	<4.6
1,2,4-Trichlorobenzene	293	<34
1,2,4-Trimethylbenzene	8,667	<5.7
1,2-Dibromoethane (EDB)	7	<8.9
1,2-Dichlorobenzene	29,333	<6.9
1,2-Dichloroethane	157	<4.7
1,2-Dichloropropane	600	<5.3
1,3,5-Trimethylbenzene	8,667	<5.7
1,3-Butadiene	31.33	<2.6
1,3-Dichlorobenzene	NL	<6.9
1,4-Dichlorobenzene	367	<6.9
1,4-Dioxane	833	<17
2,2,4-Trimethylpentane	NL	16
2-Butanone (Methyl Ethyl Ketone)	733,333	<14
2-Hexanone	1,033	<19
2-Propanol (Isopropanol)	29,222	13
3-Chloropropene	33.3	<14
4-Ethyltoluene	NL	<5.7
4-Methyl-2-pentanone	433,333	<4.7
Acetone	4,666,667	36
alpha-Chlorotoluene	NL	<6.0
Benzene	533	<3.7
Bromodichloromethane	110	<7.7
Bromoform	3,667	<12
Bromomethane	13,000	<45
Carbon Disulfide	103,333	<14
Carbon Tetrachloride	667	<7.3
Chlorobenzene	7,333	<5.3
Chloroethane	1,466,667	<12
Chloroform	177	<5.6
Chloromethane	13,000	<24
cis-1,2-Dichloroethene	NL	<4.6
cis-1,3-Dichloropropene	1,033	<5.2
Cumene	14,000	<5.7
Cyclohexane	866,667	<4.0
Dibromochloromethane	NL	<9.8
Ethanol	NL	260
Ethyl Benzene	1,633	<5.0
Freon 11 (Trichlorofluoromethane)	NL	<6.5
Freon 113 (Trichlorotrifluoroethane)	NL	<8.8
Freon 114 (Dichlorotetrafluoroethane)	NL	<8.1
Freon 12 (Dichlorodifluoromethane)	14,667	<5.7
Heptane	14,000	<4.7
Hexachlorobutadiene	187	<49
Hexane	103,333	<4.1
m,p-Xylene	14,667	22
Methyl tert-butyl ether	6,000	<17
Methylene Chloride	86,667	<40
o-Xylene	14,667	7.6
Propylbenzene	33,333	<5.7
Styrene	146,667	<4.9
Tetrachloroethene	6,000	<7.8
Tetrahydrofuran	293,333	<3.4
Toluene	733,333	23
trans-1,2-Dichloroethene	NL	<4.6
trans-1,3-Dichloropropene	1,033	<5.2
Trichloroethene	293	<6.2
Vinyl Chloride	933	<3.0

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Commercial Screening Levels for sub-slab soil gas. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

* Analytical Method: Modified EPA Method TO-15 GC/MS for Sub-Slab Samples using 1-liter Summa canisters

† :

Sub-slab screening levels are based on the default attenuation factor of 0.03.

ug/m³ : micrograms per cubic meter
BOLD : Concentrations in bold type exceed screening levels
SHADED Shaded Cell Indicates Screening Level Exceedance
 IDEM : Indiana Department of Environmental Management
 NL : No screening level established

Table 1. Indoor Air Analytical Results for Structure ID46

Compound	Indoor Air		
	IDEM Indoor Air Screening Levels	Crawl Space	First Floor
		CS-46	IA-46-F
		6/20/2018	6/20/2018
1,1,1-Trichloroethane	5,200	<0.16	<0.22
1,1,1,2-Tetrachloroethane	0.48	<0.20	<0.27
1,1,2-Trichloroethane	0.21	<0.16	<0.22
1,1-Dichloroethane	18	<0.12	<0.16
1,1-Dichloroethene	210	<0.059	<0.079
1,2-Dibromoethane (EDB)	0.047	<0.23	<0.30
1,2-Dichloroethane	1.1	<0.12	<0.16
1,4-Dichlorobenzene	2.6	<0.18	<0.24
Benzene	3.6	0.26	<0.32
Carbon Tetrachloride	4.7	0.52	0.51
Chloroethane	10,000	<0.20	<0.26
Chloroform	1.2	<0.14	<0.19
Chloromethane	94	<1.5	<2.0
cis-1,2-Dichloroethene	NL	<0.12	<0.16
Ethyl Benzene	11	0.22	0.31
Freon 114 (Dichlorotetrafluoroethane)	NL	<0.21	<0.28
Freon 12 (Dichlorodifluoromethane)	100	2.3	2.3
m,p-Xylene	100	0.89	1.5
Methyl tert-butyl ether	110	<0.54	<0.72
o-Xylene	100	0.38	0.56
Tetrachloroethene	42	<0.20	<0.27
Toluene	5,200	1.4	2.2
trans-1,2-Dichloroethene	NL	<0.59	<0.79
Trichloroethene	2.1	<0.16	<0.21
Vinyl Chloride	1.7	<0.038	<0.051

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Residential Screening Levels for residential indoor air. IDEM considers crawl space air equivalent to indoor air. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

- * Analytical Method: Modified EPA Method TO-15 GC/MS SIM for Indoor Air and Basement Samples using 6-liter Summa canisters

ug/m³ : micrograms per cubic meter

BOLD : Concentrations in **bold** type indicate detected compound

DUP : Duplicate sample

IDEM : Indiana Department of Environmental Management

NL : No screening level established

Table 1. Indoor Air Analytical Results for Structure ID47

Compound	Indoor Air	
	IDEM Indoor Air Screening Levels	First Floor
		IA-47-F
		6/21/2018
1,1,1-Trichloroethane	22,000	<0.21
1,1,2,2-Tetrachloroethane	2.1	<0.27
1,1,2-Trichloroethane	0.88	<0.21
1,1-Dichloroethane	77	<0.16
1,1-Dichloroethene	880	<0.077
1,2-Dibromoethane (EDB)	0.2	<0.30
1,2-Dichloroethane	4.7	0.3
1,4-Dichlorobenzene	11	<0.23
Benzene	16	3.5
Carbon Tetrachloride	20	0.50
Chloroethane	44,000	<0.26
Chloroform	5.3	<0.19
Chloromethane	390	<2.0
cis-1,2-Dichloroethene	NL	<0.15
Ethyl Benzene	49	1.8
Freon 114 (Dichlorotetrafluoroethane)	NL	<0.27
Freon 12 (Dichlorodifluoromethane)	440	2.3
m,p-Xylene	440	6.4
Methyl tert-butyl ether	180	<0.70
o-Xylene	440	2.3
Tetrachloroethene	180	<0.26
Toluene	22,000	13
trans-1,2-Dichloroethene	NL	<0.77
Trichloroethene	8.8	<0.21
Vinyl Chloride	28	<0.050

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Screening Levels for commercial indoor air. IDEM considers crawl space air equivalent to indoor air. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

* Analytical Method: Modified EPA Method TO-15 GC/MS SIM for Indoor Air and Basement Samples using 6-liter Summa canisters

ug/m³ : micrograms per cubic meter

BOLD : Concentrations in **bold** type indicate detected compound

DUP : Duplicate sample

IDEM : Indiana Department of Environmental Management

NL : No screening level established

Table 2. Sub-Slab Analytical Results for Structure ID47

Compound	Sub-Slab Screening Levels †	Sub-Slab
		SS-47
		6/21/2018
1,1,1-Trichloroethane	733,333	<6.5
1,1,1,2-Tetrachloroethane	70	<8.2
1,1,2-Trichloroethane	29	<6.6
1,1-Dichloroethane	2,567	<4.8
1,1-Dichloroethene	29,333	<4.7
1,2,4-Trichlorobenzene	293	<35
1,2,4-Trimethylbenzene	8,667	<5.8
1,2-Dibromoethane (EDB)	7	<9.1
1,2-Dichlorobenzene	29,333	<7.2
1,2-Dichloroethane	157	<5.5
1,2-Dichloropropane	600	<5.2
1,3,5-Trimethylbenzene	8,667	<5.8
1,3-Butadiene	31.33	<2.6
1,3-Dichlorobenzene	NL	<7.2
1,4-Dichlorobenzene	367	<7.2
1,4-Dioxane	833	<17
2,2,4-Trimethylpentane	NL	16
2-Butanone (Methyl Ethyl Ketone)	733,333	<14
2-Hexanone	1,033	<19
2-Propanol (Isopropanol)	29,222	12
3-Chloropropene	33.3	<15
4-Ethyltoluene	NL	<5.8
4-Methyl-2-pentanone	433,333	<4.9
Acetone	4,666,667	30
alpha-Chlorotoluene	NL	<6.2
Benzene	533	<3.8
Bromodichloromethane	110	<17
Bromoform	3,667	<12
Bromomethane	13,000	<46
Carbon Disulfide	103,333	<15
Carbon Tetrachloride	667	<7.5
Chlorobenzene	7,333	<5.5
Chloroethane	1,466,667	<12
Chloroform	177	<5.8
Chloromethane	13,000	<24
cis-1,2-Dichloroethene	NL	<4.7
cis-1,3-Dichloropropene	1,033	<5.4
Cumene	14,000	<5.8
Cyclohexane	866,667	<4.1
Dibromochloromethane	NL	<10
Ethanol	NL	71
Ethyl Benzene	1,633	<5.2
Freon 11 (Trichlorofluoromethane)	NL	<6.7
Freon 113 (Trichlorotrifluoroethane)	NL	<9.1
Freon 114 (Dichlorotetrafluoroethane)	NL	<8.3
Freon 12 (Dichlorodifluoromethane)	14,667	<5.9
Heptane	14,000	<4.9
Hexachlorobutadiene	187	<51
Hexane	103,333	<4.2
m,p-Xylene	14,667	21
Methyl tert-butyl ether	6,000	<17
Methylene Chloride	86,667	<41
o-Xylene	14,667	7.5
Propylbenzene	33,333	<5.8
Styrene	146,667	<5.1
Tetrachloroethene	6,000	<8.1
Tetrahydrofuran	293,333	<3.5
Toluene	733,333	21
trans-1,2-Dichloroethene	NL	<4.7
trans-1,3-Dichloropropene	1,033	<5.4
Trichloroethene	293	<6.4
Vinyl Chloride	933	<3.0

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Commercial Screening Levels for sub-slab soil gas. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

* Analytical Method: Modified EPA Method TO-15 GC/MS for Sub-Slab Samples using 1-liter Summa canisters

† :

Sub-slab screening levels are based on the default attenuation factor of 0.03.

ug/m³ : micrograms per cubic meter
 BOLD : Concentrations in **bold** type exceed screening levels
 SHADED Shaded Cell Indicates Screening Level Exceedance
 IDEM : Indiana Department of Environmental Management
 NL : No screening level established

Table 1. Indoor Air Analytical Results for Structure ID48

Compound	IDEM Indoor Air Screening Levels	Indoor Air	
		Basement	First Floor
		IA-48-B	IA-48-F
		6/21/2018	6/21/2018
1,1,1-Trichloroethane	5,200	<0.19	<0.19
1,1,1,2-Tetrachloroethane	0.48	<0.24	<0.23
1,1,2-Trichloroethane	0.21	<0.19	<0.19
1,1-Dichloroethane	18	<0.14	<0.14
1,1-Dichloroethene	210	<0.046	<0.068
1,2-Dibromoethane (EDB)	0.047	<0.27	<0.26
1,2-Dichloroethane	1.1	<0.14	<0.14
1,4-Dichlorobenzene	2.6	<0.21	<0.20
Benzene	3.6	0.43	0.50
Carbon Tetrachloride	4.7	0.48	0.54
Chloroethane	10,000	<0.23	<0.22
Chloroform	1.2	<0.17	<0.17
Chloromethane	94	<1.8	<1.8
cis-1,2-Dichloroethene	NL	<0.14	<0.14
Ethyl Benzene	11	0.23	0.27
Freon 114 (Dichlorotetrafluoroethane)	NL	<0.25	<0.24
Freon 12 (Dichlorodifluoromethane)	100	2.1	2.2
m,p-Xylene	100	0.71	0.80
Methyl tert-butyl ether	110	<0.64	<0.62
o-Xylene	100	0.30	0.37
Tetrachloroethene	42	<0.24	<0.23
Toluene	5,200	1.7	2.2
trans-1,2-Dichloroethene	NL	<0.70	<0.68
Trichloroethene	2.1	<0.19	<0.18
Vinyl Chloride	1.7	<0.046	<0.044

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Residential Screening Levels for residential indoor air. IDEM considers crawl space air equivalent to indoor air. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

- * Analytical Method: Modified EPA Method TO-15 GC/MS SIM for Indoor Air and Basement Samples using 6-liter Summa canisters

ug/m³ : micrograms per cubic meter

BOLD : Concentrations in **bold** type indicate detected compound

DUP : Duplicate sample

IDEM : Indiana Department of Environmental Management

NL : No screening level established

Table 2. Sub-Slab Analytical Results for Structure ID48

Compound	Sub-Slab Screening Levels †	Sub-Slab
		SS-48 6/21/2018
1,1,1-Trichloroethane	173,333	<6.7
1,1,2,2-Tetrachloroethane	16	<8.4
1,1,2-Trichloroethane	7	<6.7
1,1-Dichloroethane	600	<5.0
1,1-Dichloroethene	7,000	<4.9
1,2,4-Trichlorobenzene	70	<36
1,2,4-Trimethylbenzene	2,100	<6.0
1,2-Dibromoethane (EDB)	1.57	<9.4
1,2-Dichlorobenzene	7,000	<7.4
1,2-Dichloroethane	36.67	<5.0
1,2-Dichloropropane	140	<5.7
1,3,5-Trimethylbenzene	2,100	<6.0
1,3-Butadiene	31.33	<2.7
1,3-Dichlorobenzene	NL	<7.4
1,4-Dichlorobenzene	86.67	<7.4
1,4-Dioxane	186.67	<18
2,2,4-Trimethylpentane	NL	12
2-Butanone (Methyl Ethyl Ketone)	173,333	<14
2-Hexanone	1,033	<20
2-Propanol (Isopropanol)	7,000	55
3-Chloropropene (Allyl Chloride)	33.3	<15
4-Ethyltoluene	NL	<6.0
4-Methyl-2-pentanone	103,333	<5.0
Acetone	1,066,667	30
alpha-Chlorotoluene	NL	<6.4
Benzene	120	<3.9
Bromodichloromethane	25.3	<8.2
Bromoform	867	<13
Bromomethane	173.3	<48
Carbon Disulfide	24,333	<15
Carbon Tetrachloride	156.7	<7.7
Chlorobenzene	1,733	<5.7
Chloroethane	333,333	<13
Chloroform	40	<6.0
Chloromethane	3,133	<25
cis-1,2-Dichloroethene	NL	<4.9
cis-1,3-Dichloropropene	233	<5.6
Cumene	14,000	<6.0
Cyclohexane	210,000	<4.2
Dibromochloromethane	NL	<10
Ethanol	NL	140
Ethyl Benzene	367	<5.3
Freon 11 (Trichlorofluoromethane)	NL	<6.9
Freon 113 (Trichlorotrifluoroethane)	NL	<9.4
Freon 114 (Dichlorotetrafluoroethane)	NL	<8.6
Freon 12 (Dichlorodifluoromethane)	3,333	<6.1
Heptane	14,000	<5.0
Hexachlorobutadiene	43.3	<52
Hexane	24,333	<4.3
m,p-Xylene	3,333	18
Methyl tert-butyl ether	3,667	<18
Methylene Chloride	21,000	<43
o-Xylene	3,333	6.2
Propylbenzene	33,333	<6.0
Styrene	33,333	<5.2
Tetrachloroethene	1,400	8.6
Tetrahydrofuran	70,000	<3.6
Toluene	173,333	17
trans-1,2-Dichloroethene	NL	<4.9
trans-1,3-Dichloropropene	233	<5.6
Trichloroethene	70	190
Vinyl Chloride	56.7	<3.1

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Residential Screening Levels for sub-slab soil gas. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

* Analytical Method: Modified EPA Method TO-15 GC/MS for Sub-Slab Samples using 1-liter Summa canisters

† :

Sub-slab screening levels are based on the default attenuation factor of 0.03.

ug/m³ : micrograms per cubic meter
BOLD : Concentrations in **bold** type exceed screening levels
SHADED Shaded Cell Indicates Screening Level Exceedance
 IDEM : Indiana Department of Environmental Management
 NL : No screening level established

Table 1. Indoor Air Analytical Results for Structure ID49

Compound	IDEM Indoor Air Screening Levels	Indoor Air	
		Basement	First Floor
		IA-49-B	IA-49-F
		6/22/2018	6/22/2018
1,1,1-Trichloroethane	5,200	<0.21	<0.48
1,1,2,2-Tetrachloroethane	0.48	<0.27	<0.60
1,1,2-Trichloroethane	0.21	<0.21	<0.48
1,1-Dichloroethane	18	<0.16	<0.36
1,1-Dichloroethene	210	<0.077	<0.17
1,2-Dibromoethane (EDB)	0.047	<0.30	<0.68
1,2-Dichloroethane	1.1	5.5	8.5
1,4-Dichlorobenzene	2.6	<0.23	<0.53
Benzene	3.6	0.79	0.83
Carbon Tetrachloride	4.7	0.48	<0.55
Chloroethane	10,000	<0.26	<0.58
Chloroform	1.2	0.3	<0.43
Chloromethane	94	<2.0	<4.5
cis-1,2-Dichloroethene	NL	<0.15	<0.35
Ethyl Benzene	11	0.84	0.96
Freon 114 (Dichlorotetrafluoroethane)	NL	<0.27	<0.62
Freon 12 (Dichlorodifluoromethane)	100	2.2	2.3
m,p-Xylene	100	2.8	3
Methyl tert-butyl ether	110	<0.70	<1.6
o-Xylene	100	0.97	0.99
Tetrachloroethene	42	<0.26	<0.60
Toluene	5,200	10	12
trans-1,2-Dichloroethene	NL	<0.77	<1.7
Trichloroethene	2.1	<0.21	<0.47
Vinyl Chloride	1.7	<0.050	<0.11

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Residential Screening Levels for residential indoor air. IDEM considers crawl space air equivalent to indoor air. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

- * Analytical Method: Modified EPA Method TO-15 GC/MS SIM for Indoor Air and Basement Samples using 6-liter Summa canisters

ug/m³ : micrograms per cubic meter

BOLD : Concentrations in **bold** type indicate detected compound

DUP : Duplicate sample

IDEM : Indiana Department of Environmental Management

NL : No screening level established

Table 2. Sub-Slab Analytical Results for Structure ID49

Compound	Sub-Slab Screening Levels †	Sub-Slab
		SS-49 6/22/2018
1,1,1-Trichloroethane	173,333	7.4
1,1,1,2-Tetrachloroethane	16	<7.6
1,1,2-Trichloroethane	7	<6.0
1,1-Dichloroethane	600	<4.5
1,1-Dichloroethene	7,000	<4.4
1,2,4-Trichlorobenzene	70	<33
1,2,4-Trimethylbenzene	2,100	<5.4
1,2-Dibromoethane (EDB)	1.57	<8.5
1,2-Dichlorobenzene	7,000	<6.7
1,2-Dichloroethane	36.67	<4.5
1,2-Dichloropropane	140	<5.1
1,3,5-Trimethylbenzene	2,100	<5.4
1,3-Butadiene	31.33	<2.4
1,3-Dichlorobenzene	NL	<6.7
1,4-Dichlorobenzene	86.67	<6.7
1,4-Dioxane	186.67	<16
2,2,4-Trimethylpentane	NL	7.7
2-Butanone (Methyl Ethyl Ketone)	173,333	<13
2-Hexanone	1,033	<18
2-Propanol (Isopropanol)	7,000	<11
3-Chloropropene	33.3	<14
4-Ethyltoluene	NL	<5.4
4-Methyl-2-pentanone	103,333	<4.5
Acetone	1,066,667	40
alpha-Chlorotoluene	NL	<5.7
Benzene	120	<3.5
Bromodichloromethane	25.3	<7.4
Bromoform	867	<11
Bromomethane	173.3	<43
Carbon Disulfide	24,333	<14
Carbon Tetrachloride	156.7	<7.0
Chlorobenzene	1,733	<5.1
Chloroethane	333,333	<12
Chloroform	40	<5.4
Chloromethane	3,133	<23
cis-1,2-Dichloroethene	NL	<4.4
cis-1,3-Dichloropropene	233	<5.0
Cumene	14,000	<5.4
Cyclohexane	210,000	<3.8
Dibromochloromethane	NL	<9.4
Ethanol	NL	20
Ethyl Benzene	367	<4.8
Freon 11 (Trichlorofluoromethane)	NL	<6.2
Freon 113 (Trichlorotrifluoroethane)	NL	<8.5
Freon 114 (Dichlorotetrafluoroethane)	NL	<7.8
Freon 12 (Dichlorodifluoromethane)	3,333	<5.5
Heptane	14,000	<4.5
Hexachlorobutadiene	43.3	<47
Hexane	24,333	<3.9
m,p-Xylene	3,333	11
Methyl tert-butyl ether	3,667	<16
Methylene Chloride	21,000	<38
o-Xylene	3,333	5.2
Propylbenzene	33,333	<5.4
Styrene	33,333	<4.7
Tetrachloroethene	1,400	<7.5
Tetrahydrofuran	70,000	<3.3
Toluene	173,333	19
trans-1,2-Dichloroethene	NL	<4.4
trans-1,3-Dichloropropene	233	<5.0
Trichloroethene	70	15
Vinyl Chloride	56.7	<2.8

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Residential Screening Levels for sub-slab soil gas. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

* Analytical Method: Modified EPA Method TO-15 GC/MS for Sub-Slab Samples using 1-liter Summa canisters

† :

Sub-slab screening levels are based on the default attenuation factor of 0.03.

ug/m³ : micrograms per cubic meter

BOLD : Concentrations in **bold** type exceed screening levels

SHADED Shaded Cell Indicates Screening Level Exceedance

IDEM : Indiana Department of Environmental Management

NL : No screening level established

Table 1. Indoor Air Analytical Results for Structure ID50

Compound	IDEM Indoor Air Screening Levels	Indoor Air	
		Basement	First Floor
		IA-50-B	IA-50-F
		6/22/2018	6/22/2018
1,1,1-Trichloroethane	5,200	<0.19	<0.20
1,1,2,2-Tetrachloroethane	0.48	<0.24	<0.24
1,1,2-Trichloroethane	0.21	<0.19	<0.20
1,1-Dichloroethane	18	<0.14	<0.14
1,1-Dichloroethene	210	<0.069	<0.071
1,2-Dibromoethane (EDB)	0.047	<0.27	<0.28
1,2-Dichloroethane	1.1	1.8	2.2
1,4-Dichlorobenzene	2.6	0.21	<0.22
Benzene	3.6	0.58	0.58
Carbon Tetrachloride	4.7	0.54	0.55
Chloroethane	10,000	<0.23	<0.24
Chloroform	1.2	13	14
Chloromethane	94	<1.8	<1.8
cis-1,2-Dichloroethene	NL	<0.14	<0.14
Ethyl Benzene	11	2.0	2.3
Freon 114 (Dichlorotetrafluoroethane)	NL	<0.24	<0.25
Freon 12 (Dichlorodifluoromethane)	100	2.2	2.2
m,p-Xylene	100	6.2	6.7
Methyl tert-butyl ether	110	<0.63	<0.64
o-Xylene	100	2.4	2.6
Tetrachloroethene	42	<0.24	0.25
Toluene	5,200	17	21
trans-1,2-Dichloroethene	NL	<0.69	<0.71
Trichloroethene	2.1	0.49	0.41
Vinyl Chloride	1.7	<0.045	<0.046

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Residential Screening Levels for residential indoor air. IDEM considers crawl space air equivalent to indoor air. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

- * Analytical Method: Modified EPA Method TO-15 GC/MS SIM for Indoor Air and Basement Samples using 6-liter Summa canisters

ug/m³ : micrograms per cubic meter

BOLD : Concentrations in **bold** type indicate detected compound

DUP : Duplicate sample

IDEM : Indiana Department of Environmental Management

NL : No screening level established

Table 2. Sub-Slab Analytical Results for Structure ID50

Compound	Sub-Slab Screening Levels †	Sub-Slab
		SS-50 6/22/2018
1,1,1-Trichloroethane	173,333	18
1,1,1,2-Tetrachloroethane	16	<11
1,1,2-Trichloroethane	7	<8.7
1,1-Dichloroethane	600	<6.5
1,1-Dichloroethene	7,000	<6.3
1,2,4-Trichlorobenzene	70	<47
1,2,4-Trimethylbenzene	2,100	<7.9
1,2-Dibromoethane (EDB)	1.57	<12
1,2-Dichlorobenzene	7,000	<9.6
1,2-Dichloroethane	36.67	<6.5
1,2-Dichloropropane	140	<7.4
1,3,5-Trimethylbenzene	2,100	<7.9
1,3-Butadiene	31.33	<3.5
1,3-Dichlorobenzene	NL	<9.6
1,4-Dichlorobenzene	86.67	<9.6
1,4-Dioxane	186.67	<23
2,2,4-Trimethylpentane	NL	9.0
2-Butanone (Methyl Ethyl Ketone)	173,333	<19
2-Hexanone	1,033	<26
2-Propanol (Isopropanol)	7,000	<16
3-Chloropropene (Allyl Chloride)	33.3	<20
4-Ethyltoluene	NL	<7.9
4-Methyl-2-pentanone	103,333	<6.6
Acetone	1,066,667	<38
alpha-Chlorotoluene	NL	<8.3
Benzene	120	<5.1
Bromodichloromethane	25.3	<11
Bromoform	867	<16
Bromomethane	173.3	<62
Carbon Disulfide	24,333	<20
Carbon Tetrachloride	156.7	<10
Chlorobenzene	1,733	<7.4
Chloroethane	333,333	<17
Chloroform	40	<7.8
Chloromethane	3,133	<33
cis-1,2-Dichloroethene	NL	<6.3
cis-1,3-Dichloropropene	233	<7.3
Cumene	14,000	<7.9
Cyclohexane	210,000	<5.5
Dibromochloromethane	NL	<14
Ethanol	NL	14
Ethyl Benzene	367	<6.9
Freon 11 (Trichlorofluoromethane)	NL	<9.0
Freon 113 (Trichlorotrifluoroethane)	NL	<12
Freon 114 (Dichlorotetrafluoroethane)	NL	<11
Freon 12 (Dichlorodifluoromethane)	3,333	42
Heptane	14,000	<6.6
Hexachlorobutadiene	43.3	<68
Hexane	24,333	<5.6
m,p-Xylene	3,333	11
Methyl tert-butyl ether	3,667	<23
Methylene Chloride	21,000	<56
o-Xylene	3,333	<6.9
Propylbenzene	33,333	<7.9
Styrene	33,333	<6.8
Tetrachloroethene	1,400	<11
Tetrahydrofuran	70,000	<4.7
Toluene	173,333	9.4
trans-1,2-Dichloroethene	NL	<6.3
trans-1,3-Dichloropropene	233	<7.3
Trichloroethene	70	2600
Vinyl Chloride	56.7	<4.1

Notes:

Screening levels are IDEM 2018 Remediation Closure Guide Residential Screening Levels for sub-slab soil gas. Screening levels are protective for an individual exposed to the chemical for 24 hours per day for 30 years.

* Analytical Method: Modified EPA Method TO-15 GC/MS for Sub-Slab Samples using 1-liter Summa canisters

† :

Sub-slab screening levels are based on the default attenuation factor of 0.03.

ug/m³ : micrograms per cubic meter
 BOLD : Concentrations in **bold** type exceed screening levels
 SHADED Shaded Cell Indicates Screening Level Exceedance
 IDEM : Indiana Department of Environmental Management
 NL : No screening level established

7/17/2018
Mr. Jon Akin
Arcadis U.S., Inc.
150 W Market St, Ste 728

Indianapolis IN 46204

Project Name: GE - Tell City
Project #: IN000911.0016
Workorder #: 1807148

Dear Mr. Jon Akin

The following report includes the data for the above referenced project for sample(s) received on 7/11/2018 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 SIM 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: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott
Project Manager

WORK ORDER #: 1807148

Work Order Summary

CLIENT:	Mr. Jon Akin Arcadis U.S., Inc. 150 W Market St, Ste 728 Indianapolis, IN 46204	BILL TO:	Accounts Payable Arcadis U.S., Inc. 630 Plaza Drive Suite 600 Highlands Ranch, CO 80129
PHONE:	317-231-6500	P.O. #	IN000911.0016
FAX:	317-231-6514	PROJECT #	IN000911.0016 GE - Tell City
DATE RECEIVED:	07/11/2018	CONTACT:	Ausha Scott
DATE COMPLETED:	07/17/2018		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	IA-02-F(070918)	Modified TO-15 SIM	7.3 "Hg	5 psi
02A	IA-02-B(070918)	Modified TO-15 SIM	5.7 "Hg	5 psi
03A	AMB-1(070918)	Modified TO-15 SIM	7.8 "Hg	5 psi
04A	IA-01-F(070918)	Modified TO-15 SIM	7.8 "Hg	5.2 psi
05A	IA-01-B(070918)	Modified TO-15 SIM	6.7 "Hg	4.9 psi
06A	DUP-1(070918)	Modified TO-15 SIM	6.3 "Hg	5 psi
07A	Lab Blank	Modified TO-15 SIM	NA	NA
08A	CCV	Modified TO-15 SIM	NA	NA
09A	LCS	Modified TO-15 SIM	NA	NA
09AA	LCSD	Modified TO-15 SIM	NA	NA

CERTIFIED BY: 

 Technical Director

DATE: 07/17/18

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

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 SIM
Arcadis U.S., Inc.
Workorder# 1807148

Six 6 Liter Summa Canister (SIM Certified) samples were received on July 11, 2018. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
ICAL %RSD acceptance criteria	$\leq 30\%$ RSD with 2 compounds allowed out to $< 40\%$ RSD	Project specific; default criteria is $\leq 30\%$ RSD with 10% of compounds allowed out to $< 40\%$ RSD
Daily Calibration	$\pm 30\%$ Difference	Project specific; default criteria is $\leq 30\%$ Difference with 10% of compounds allowed out up to $\leq 40\%$.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

The Chain of Custody (COC) information for sample DUP-1(070918) did not match the information on the canister with regard to canister identification. The client was notified of the discrepancy and the information on the canister was used to process and report the sample.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

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

B - Compound present in laboratory blank greater than reporting limit (background 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

Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS SIM

Client Sample ID: IA-02-F(070918)

Lab ID#: 1807148-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.035	0.49	0.18	2.4
Chloromethane	0.88	1.0	1.8	2.1
Chloroform	0.035	0.086	0.17	0.42
Carbon Tetrachloride	0.035	0.066	0.22	0.41
Benzene	0.088	0.42	0.28	1.4
1,2-Dichloroethane	0.035	0.12	0.14	0.51
Toluene	0.035	1.2	0.13	4.3
Ethyl Benzene	0.035	0.18	0.15	0.77
m,p-Xylene	0.071	0.34	0.31	1.5
o-Xylene	0.035	0.13	0.15	0.57
1,4-Dichlorobenzene	0.035	0.036	0.21	0.21

Client Sample ID: IA-02-B(070918)

Lab ID#: 1807148-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.033	0.51	0.16	2.5
Chloromethane	0.83	0.98	1.7	2.0
Chloroform	0.033	0.084	0.16	0.41
Carbon Tetrachloride	0.033	0.066	0.21	0.42
Benzene	0.083	0.34	0.26	1.1
1,2-Dichloroethane	0.033	0.12	0.13	0.49
Toluene	0.033	1.1	0.12	4.0
Ethyl Benzene	0.033	0.17	0.14	0.74
m,p-Xylene	0.066	0.30	0.29	1.3
o-Xylene	0.033	0.11	0.14	0.48
1,4-Dichlorobenzene	0.033	0.044	0.20	0.26

Client Sample ID: AMB-1(070918)

Lab ID#: 1807148-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.036	0.50	0.18	2.5

Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS SIM

Client Sample ID: AMB-1(070918)

Lab ID#: 1807148-03A

Carbon Tetrachloride	0.036	0.058	0.23	0.37
Benzene	0.090	0.15	0.29	0.48
Toluene	0.036	0.34	0.14	1.3
Ethyl Benzene	0.036	0.042	0.16	0.18
m,p-Xylene	0.072	0.14	0.31	0.61
o-Xylene	0.036	0.059	0.16	0.26

Client Sample ID: IA-01-F(070918)

Lab ID#: 1807148-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.036	0.53	0.18	2.6
Chloromethane	0.91	0.96	1.9	2.0
Chloroform	0.036	0.084	0.18	0.41
Carbon Tetrachloride	0.036	0.065	0.23	0.41
Benzene	0.091	0.19	0.29	0.60
1,2-Dichloroethane	0.036	0.076	0.15	0.31
Toluene	0.036	0.74	0.14	2.8
Ethyl Benzene	0.036	0.064	0.16	0.28
m,p-Xylene	0.073	0.14	0.32	0.61
o-Xylene	0.036	0.062	0.16	0.27

Client Sample ID: IA-01-B(070918)

Lab ID#: 1807148-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.034	0.52	0.17	2.6
Chloromethane	0.86	0.97	1.8	2.0
Chloroform	0.034	0.084	0.17	0.41
Carbon Tetrachloride	0.034	0.061	0.22	0.38
Benzene	0.086	0.18	0.27	0.58
1,2-Dichloroethane	0.034	0.071	0.14	0.29
Toluene	0.034	0.66	0.13	2.5
Ethyl Benzene	0.034	0.058	0.15	0.25

**Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM**

Client Sample ID: IA-01-B(070918)

Lab ID#: 1807148-05A

m,p-Xylene	0.069	0.13	0.30	0.57
o-Xylene	0.034	0.059	0.15	0.26

Client Sample ID: DUP-1(070918)

Lab ID#: 1807148-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.034	0.53	0.17	2.6
Chloromethane	0.85	0.98	1.8	2.0
Chloroform	0.034	0.082	0.17	0.40
Carbon Tetrachloride	0.034	0.060	0.21	0.38
Benzene	0.085	0.19	0.27	0.60
1,2-Dichloroethane	0.034	0.068	0.14	0.28
Toluene	0.034	0.70	0.13	2.6
Ethyl Benzene	0.034	0.063	0.15	0.27
m,p-Xylene	0.068	0.14	0.30	0.59
o-Xylene	0.034	0.059	0.15	0.26



Air Toxics

Client Sample ID: IA-02-F(070918)

Lab ID#: 1807148-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	20071213sim	Date of Collection:	7/10/18 8:30:00 AM
Dil. Factor:	1.77	Date of Analysis:	7/12/18 05:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.035	0.49	0.18	2.4
Freon 114	0.035	Not Detected	0.25	Not Detected
Chloromethane	0.88	1.0	1.8	2.1
Vinyl Chloride	0.018	Not Detected	0.045	Not Detected
Chloroethane	0.088	Not Detected	0.23	Not Detected
1,1-Dichloroethene	0.018	Not Detected	0.070	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.70	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.64	Not Detected
1,1-Dichloroethane	0.035	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.035	Not Detected	0.14	Not Detected
Chloroform	0.035	0.086	0.17	0.42
1,1,1-Trichloroethane	0.035	Not Detected	0.19	Not Detected
Carbon Tetrachloride	0.035	0.066	0.22	0.41
Benzene	0.088	0.42	0.28	1.4
1,2-Dichloroethane	0.035	0.12	0.14	0.51
Trichloroethene	0.035	Not Detected	0.19	Not Detected
Toluene	0.035	1.2	0.13	4.3
1,1,2-Trichloroethane	0.035	Not Detected	0.19	Not Detected
Tetrachloroethene	0.035	Not Detected	0.24	Not Detected
1,2-Dibromoethane (EDB)	0.035	Not Detected	0.27	Not Detected
Ethyl Benzene	0.035	0.18	0.15	0.77
m,p-Xylene	0.071	0.34	0.31	1.5
o-Xylene	0.035	0.13	0.15	0.57
1,1,2,2-Tetrachloroethane	0.035	Not Detected	0.24	Not Detected
1,4-Dichlorobenzene	0.035	0.036	0.21	0.21

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	91	70-130



Air Toxics

Client Sample ID: IA-02-B(070918)

Lab ID#: 1807148-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	20071214sim	Date of Collection:	7/10/18 8:25:00 AM
Dil. Factor:	1.66	Date of Analysis:	7/12/18 06:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.033	0.51	0.16	2.5
Freon 114	0.033	Not Detected	0.23	Not Detected
Chloromethane	0.83	0.98	1.7	2.0
Vinyl Chloride	0.017	Not Detected	0.042	Not Detected
Chloroethane	0.083	Not Detected	0.22	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.066	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.60	Not Detected
1,1-Dichloroethane	0.033	Not Detected	0.13	Not Detected
cis-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected
Chloroform	0.033	0.084	0.16	0.41
1,1,1-Trichloroethane	0.033	Not Detected	0.18	Not Detected
Carbon Tetrachloride	0.033	0.066	0.21	0.42
Benzene	0.083	0.34	0.26	1.1
1,2-Dichloroethane	0.033	0.12	0.13	0.49
Trichloroethene	0.033	Not Detected	0.18	Not Detected
Toluene	0.033	1.1	0.12	4.0
1,1,2-Trichloroethane	0.033	Not Detected	0.18	Not Detected
Tetrachloroethene	0.033	Not Detected	0.22	Not Detected
1,2-Dibromoethane (EDB)	0.033	Not Detected	0.26	Not Detected
Ethyl Benzene	0.033	0.17	0.14	0.74
m,p-Xylene	0.066	0.30	0.29	1.3
o-Xylene	0.033	0.11	0.14	0.48
1,1,2,2-Tetrachloroethane	0.033	Not Detected	0.23	Not Detected
1,4-Dichlorobenzene	0.033	0.044	0.20	0.26

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	89	70-130



Client Sample ID: AMB-1(070918)

Lab ID#: 1807148-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	20071215sim	Date of Collection:	7/10/18 9:51:00 AM
Dil. Factor:	1.81	Date of Analysis:	7/12/18 07:12 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.036	0.50	0.18	2.5
Freon 114	0.036	Not Detected	0.25	Not Detected
Chloromethane	0.90	Not Detected	1.9	Not Detected
Vinyl Chloride	0.018	Not Detected	0.046	Not Detected
Chloroethane	0.090	Not Detected	0.24	Not Detected
1,1-Dichloroethene	0.018	Not Detected	0.072	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.65	Not Detected
1,1-Dichloroethane	0.036	Not Detected	0.15	Not Detected
cis-1,2-Dichloroethene	0.036	Not Detected	0.14	Not Detected
Chloroform	0.036	Not Detected	0.18	Not Detected
1,1,1-Trichloroethane	0.036	Not Detected	0.20	Not Detected
Carbon Tetrachloride	0.036	0.058	0.23	0.37
Benzene	0.090	0.15	0.29	0.48
1,2-Dichloroethane	0.036	Not Detected	0.15	Not Detected
Trichloroethene	0.036	Not Detected	0.19	Not Detected
Toluene	0.036	0.34	0.14	1.3
1,1,2-Trichloroethane	0.036	Not Detected	0.20	Not Detected
Tetrachloroethene	0.036	Not Detected	0.24	Not Detected
1,2-Dibromoethane (EDB)	0.036	Not Detected	0.28	Not Detected
Ethyl Benzene	0.036	0.042	0.16	0.18
m,p-Xylene	0.072	0.14	0.31	0.61
o-Xylene	0.036	0.059	0.16	0.26
1,1,2,2-Tetrachloroethane	0.036	Not Detected	0.25	Not Detected
1,4-Dichlorobenzene	0.036	Not Detected	0.22	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	92	70-130



Air Toxics

Client Sample ID: IA-01-F(070918)

Lab ID#: 1807148-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	20071216sim	Date of Collection:	7/10/18 9:25:00 AM
Dil. Factor:	1.82	Date of Analysis:	7/12/18 08:09 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.036	0.53	0.18	2.6
Freon 114	0.036	Not Detected	0.25	Not Detected
Chloromethane	0.91	0.96	1.9	2.0
Vinyl Chloride	0.018	Not Detected	0.046	Not Detected
Chloroethane	0.091	Not Detected	0.24	Not Detected
1,1-Dichloroethene	0.018	Not Detected	0.072	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.66	Not Detected
1,1-Dichloroethane	0.036	Not Detected	0.15	Not Detected
cis-1,2-Dichloroethene	0.036	Not Detected	0.14	Not Detected
Chloroform	0.036	0.084	0.18	0.41
1,1,1-Trichloroethane	0.036	Not Detected	0.20	Not Detected
Carbon Tetrachloride	0.036	0.065	0.23	0.41
Benzene	0.091	0.19	0.29	0.60
1,2-Dichloroethane	0.036	0.076	0.15	0.31
Trichloroethene	0.036	Not Detected	0.20	Not Detected
Toluene	0.036	0.74	0.14	2.8
1,1,2-Trichloroethane	0.036	Not Detected	0.20	Not Detected
Tetrachloroethene	0.036	Not Detected	0.25	Not Detected
1,2-Dibromoethane (EDB)	0.036	Not Detected	0.28	Not Detected
Ethyl Benzene	0.036	0.064	0.16	0.28
m,p-Xylene	0.073	0.14	0.32	0.61
o-Xylene	0.036	0.062	0.16	0.27
1,1,2,2-Tetrachloroethane	0.036	Not Detected	0.25	Not Detected
1,4-Dichlorobenzene	0.036	Not Detected	0.22	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	93	70-130



Client Sample ID: IA-01-B(070918)

Lab ID#: 1807148-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	20071217sim	Date of Collection: 7/10/18 9:21:00 AM
Dil. Factor:	1.72	Date of Analysis: 7/12/18 08:49 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.034	0.52	0.17	2.6
Freon 114	0.034	Not Detected	0.24	Not Detected
Chloromethane	0.86	0.97	1.8	2.0
Vinyl Chloride	0.017	Not Detected	0.044	Not Detected
Chloroethane	0.086	Not Detected	0.23	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.068	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.62	Not Detected
1,1-Dichloroethane	0.034	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.14	Not Detected
Chloroform	0.034	0.084	0.17	0.41
1,1,1-Trichloroethane	0.034	Not Detected	0.19	Not Detected
Carbon Tetrachloride	0.034	0.061	0.22	0.38
Benzene	0.086	0.18	0.27	0.58
1,2-Dichloroethane	0.034	0.071	0.14	0.29
Trichloroethene	0.034	Not Detected	0.18	Not Detected
Toluene	0.034	0.66	0.13	2.5
1,1,2-Trichloroethane	0.034	Not Detected	0.19	Not Detected
Tetrachloroethene	0.034	Not Detected	0.23	Not Detected
1,2-Dibromoethane (EDB)	0.034	Not Detected	0.26	Not Detected
Ethyl Benzene	0.034	0.058	0.15	0.25
m,p-Xylene	0.069	0.13	0.30	0.57
o-Xylene	0.034	0.059	0.15	0.26
1,1,2,2-Tetrachloroethane	0.034	Not Detected	0.24	Not Detected
1,4-Dichlorobenzene	0.034	Not Detected	0.21	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	94	70-130



Client Sample ID: DUP-1(070918)

Lab ID#: 1807148-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	20071218sim	Date of Collection:	7/10/18
Dil. Factor:	1.70	Date of Analysis:	7/12/18 09:44 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.034	0.53	0.17	2.6
Freon 114	0.034	Not Detected	0.24	Not Detected
Chloromethane	0.85	0.98	1.8	2.0
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
Chloroethane	0.085	Not Detected	0.22	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.61	Not Detected
1,1-Dichloroethane	0.034	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
Chloroform	0.034	0.082	0.17	0.40
1,1,1-Trichloroethane	0.034	Not Detected	0.18	Not Detected
Carbon Tetrachloride	0.034	0.060	0.21	0.38
Benzene	0.085	0.19	0.27	0.60
1,2-Dichloroethane	0.034	0.068	0.14	0.28
Trichloroethene	0.034	Not Detected	0.18	Not Detected
Toluene	0.034	0.70	0.13	2.6
1,1,2-Trichloroethane	0.034	Not Detected	0.18	Not Detected
Tetrachloroethene	0.034	Not Detected	0.23	Not Detected
1,2-Dibromoethane (EDB)	0.034	Not Detected	0.26	Not Detected
Ethyl Benzene	0.034	0.063	0.15	0.27
m,p-Xylene	0.068	0.14	0.30	0.59
o-Xylene	0.034	0.059	0.15	0.26
1,1,2,2-Tetrachloroethane	0.034	Not Detected	0.23	Not Detected
1,4-Dichlorobenzene	0.034	Not Detected	0.20	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	94	70-130



Client Sample ID: Lab Blank

Lab ID#: 1807148-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	20071207sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/12/18 12:33 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.020	Not Detected	0.099	Not Detected
Freon 114	0.020	Not Detected	0.14	Not Detected
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Chloroethane	0.050	Not Detected	0.13	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
1,1-Dichloroethane	0.020	Not Detected	0.081	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
1,1,1-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Carbon Tetrachloride	0.020	Not Detected	0.12	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected
Toluene	0.020	Not Detected	0.075	Not Detected
1,1,2-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
1,2-Dibromoethane (EDB)	0.020	Not Detected	0.15	Not Detected
Ethyl Benzene	0.020	Not Detected	0.087	Not Detected
m,p-Xylene	0.040	Not Detected	0.17	Not Detected
o-Xylene	0.020	Not Detected	0.087	Not Detected
1,1,2,2-Tetrachloroethane	0.020	Not Detected	0.14	Not Detected
1,4-Dichlorobenzene	0.020	Not Detected	0.12	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	88	70-130

Client Sample ID: CCV

Lab ID#: 1807148-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	20071202sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/12/18 09:00 AM

Compound	%Recovery
Freon 12	99
Freon 114	94
Chloromethane	100
Vinyl Chloride	106
Chloroethane	109
1,1-Dichloroethene	96
trans-1,2-Dichloroethene	102
Methyl tert-butyl ether	107
1,1-Dichloroethane	108
cis-1,2-Dichloroethene	101
Chloroform	97
1,1,1-Trichloroethane	95
Carbon Tetrachloride	99
Benzene	102
1,2-Dichloroethane	102
Trichloroethene	90
Toluene	100
1,1,2-Trichloroethane	100
Tetrachloroethene	87
1,2-Dibromoethane (EDB)	98
Ethyl Benzene	105
m,p-Xylene	106
o-Xylene	104
1,1,2,2-Tetrachloroethane	101
1,4-Dichlorobenzene	85

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	107	70-130
4-Bromofluorobenzene	94	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1807148-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	20071203sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/12/18 09:40 AM

Compound	%Recovery	Method Limits
Freon 12	99	70-130
Freon 114	95	70-130
Chloromethane	99	70-130
Vinyl Chloride	108	70-130
Chloroethane	114	70-130
1,1-Dichloroethene	95	70-130
trans-1,2-Dichloroethene	110	70-130
Methyl tert-butyl ether	103	70-130
1,1-Dichloroethane	104	70-130
cis-1,2-Dichloroethene	91	70-130
Chloroform	95	70-130
1,1,1-Trichloroethane	94	70-130
Carbon Tetrachloride	116	60-140
Benzene	101	70-130
1,2-Dichloroethane	98	70-130
Trichloroethene	90	70-130
Toluene	99	70-130
1,1,2-Trichloroethane	101	70-130
Tetrachloroethene	88	70-130
1,2-Dibromoethane (EDB)	100	70-130
Ethyl Benzene	106	70-130
m,p-Xylene	107	70-130
o-Xylene	106	70-130
1,1,2,2-Tetrachloroethane	100	70-130
1,4-Dichlorobenzene	86	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	107	70-130
4-Bromofluorobenzene	94	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1807148-09AA

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	20071204sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/12/18 10:20 AM

Compound	%Recovery	Method Limits
Freon 12	97	70-130
Freon 114	94	70-130
Chloromethane	97	70-130
Vinyl Chloride	106	70-130
Chloroethane	113	70-130
1,1-Dichloroethene	94	70-130
trans-1,2-Dichloroethene	108	70-130
Methyl tert-butyl ether	102	70-130
1,1-Dichloroethane	102	70-130
cis-1,2-Dichloroethene	91	70-130
Chloroform	94	70-130
1,1,1-Trichloroethane	93	70-130
Carbon Tetrachloride	115	60-140
Benzene	99	70-130
1,2-Dichloroethane	96	70-130
Trichloroethene	89	70-130
Toluene	98	70-130
1,1,2-Trichloroethane	100	70-130
Tetrachloroethene	87	70-130
1,2-Dibromoethane (EDB)	98	70-130
Ethyl Benzene	105	70-130
m,p-Xylene	106	70-130
o-Xylene	105	70-130
1,1,2,2-Tetrachloroethane	99	70-130
1,4-Dichlorobenzene	85	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	94	70-130

7/2/2018

Mr. Jon Akin
Arcadis U.S., Inc.
150 W Market St, Ste 728

Indianapolis IN 46204

Project Name: GE Tell City
Project #: IN000911.0016
Workorder #: 1806477A

Dear Mr. Jon Akin

The following report includes the data for the above referenced project for sample(s) received on 6/25/2018 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 SIM 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: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott
Project Manager

WORK ORDER #: 1806477A

Work Order Summary

CLIENT:	Mr. Jon Akin Arcadis U.S., Inc. 150 W Market St, Ste 728 Indianapolis, IN 46204	BILL TO:	Accounts Payable Arcadis U.S., Inc. 630 Plaza Drive Suite 600 Highlands Ranch, CO 80129
PHONE:	317-231-6500	P.O. #	IN000911.0016
FAX:	317-231-6514	PROJECT #	IN000911.0016 GE Tell City
DATE RECEIVED:	06/25/2018	CONTACT:	Ausha Scott
DATE COMPLETED:	07/02/2018		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	Amb-1 (061918)	Modified TO-15 SIM	5.9 "Hg	4.9 psi
02A	IA-38-F (061918)	Modified TO-15 SIM	6.1 "Hg	5.2 psi
03A	IA-39-F (061918)	Modified TO-15 SIM	5.9 "Hg	5.2 psi
04A	IA-40-F (061918)	Modified TO-15 SIM	5.7 "Hg	4.6 psi
05A	IA-46-F (061918)	Modified TO-15 SIM	9.8 "Hg	5 psi
06A	CS-46 (061918)	Modified TO-15 SIM	2.8 "Hg	5.1 psi
07A	IA-42-F (061918)	Modified TO-15 SIM	5.5 "Hg	5.2 psi
08A	IA-42-B (061918)	Modified TO-15 SIM	4.9 "Hg	5 psi
09A	CS-42 (061918)	Modified TO-15 SIM	7.1 "Hg	5.1 psi
10A	IA-43-F (061918)	Modified TO-15 SIM	10.8 "Hg	5.2 psi
11A	IA-43-B (061918)	Modified TO-15 SIM	8 "Hg	5 psi
12A	IA-44-F (062018)	Modified TO-15 SIM	7.3 "Hg	5.5 psi
13A	IA-44-B (062018)	Modified TO-15 SIM	3.9 "Hg	4.7 psi
14A	CS-44 (062018)	Modified TO-15 SIM	5.9 "Hg	4.9 psi
16A	Amb-2 (062018)	Modified TO-15 SIM	6.1 "Hg	5.1 psi
17A	IA-45-F (062018)	Modified TO-15 SIM	7.8 "Hg	5.1 psi
18A	IA-48-F (062018)	Modified TO-15 SIM	6.1 "Hg	5.3 psi
19A	IA-48-B (062018)	Modified TO-15 SIM	7.3 "Hg	5.1 psi
20A	Lab Blank	Modified TO-15 SIM	NA	NA
21A	CCV	Modified TO-15 SIM	NA	NA
22A	LCS	Modified TO-15 SIM	NA	NA
22AA	LCSD	Modified TO-15 SIM	NA	NA

CERTIFIED BY: 

DATE: 07/02/18

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

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 SIM
Arcadis U.S., Inc.
Workorder# 1806477A

Eighteen 6 Liter Summa Canister (SIM Certified) samples were received on June 25, 2018. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
ICAL %RSD acceptance criteria	$\leq 30\%$ RSD with 2 compounds allowed out to <math>< 40\%</math> RSD	Project specific; default criteria is $\leq 30\%$ RSD with 10% of compounds allowed out to <math>< 40\%</math> RSD
Daily Calibration	+/- 30% Difference	Project specific; default criteria is $\leq 30\%$ Difference with 10% of compounds allowed out up to $\leq 40\%$; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Dilution was performed on samples IA-44-F (062018), IA-44-B (062018) and CS-44 (062018) due to the presence of high level non-target species.

Definition of Data Qualifying Flags

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

B - Compound present in laboratory blank greater than reporting limit (background 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

Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS SIM

Client Sample ID: Amb-1 (061918)

Lab ID#: 1806477A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.033	0.45	0.16	2.2
Carbon Tetrachloride	0.033	0.075	0.21	0.47
Benzene	0.083	0.083	0.26	0.26
Toluene	0.033	0.24	0.12	0.92
Ethyl Benzene	0.033	0.047	0.14	0.20
m,p-Xylene	0.066	0.18	0.29	0.79
o-Xylene	0.033	0.082	0.14	0.36

Client Sample ID: IA-38-F (061918)

Lab ID#: 1806477A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.034	0.42	0.17	2.1
trans-1,2-Dichloroethene	0.17	0.87	0.67	3.4
Carbon Tetrachloride	0.034	0.081	0.21	0.51
Benzene	0.085	0.46	0.27	1.5
1,2-Dichloroethane	0.034	0.14	0.14	0.55
Toluene	0.034	5.5	0.13	21
Tetrachloroethene	0.034	0.042	0.23	0.29
Ethyl Benzene	0.034	0.96	0.15	4.2
m,p-Xylene	0.068	3.6	0.30	16
o-Xylene	0.034	1.3	0.15	5.6
1,4-Dichlorobenzene	0.034	0.041	0.20	0.25

Client Sample ID: IA-39-F (061918)

Lab ID#: 1806477A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.034	0.44	0.17	2.2
Carbon Tetrachloride	0.034	0.076	0.21	0.48
Toluene	0.034	0.47	0.13	1.8
Ethyl Benzene	0.034	0.12	0.15	0.50
m,p-Xylene	0.068	0.27	0.29	1.2

Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS SIM

Client Sample ID: IA-39-F (061918)

Lab ID#: 1806477A-03A

o-Xylene	0.034	0.10	0.15	0.46
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Client Sample ID: IA-40-F (061918)

Lab ID#: 1806477A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.032	0.43	0.16	2.1
Chloroform	0.032	0.085	0.16	0.42
Carbon Tetrachloride	0.032	0.084	0.20	0.53
Trichloroethene	0.032	0.034	0.17	0.18
Toluene	0.032	0.73	0.12	2.7
Ethyl Benzene	0.032	0.28	0.14	1.2
m,p-Xylene	0.065	0.64	0.28	2.8
o-Xylene	0.032	0.22	0.14	0.98
1,4-Dichlorobenzene	0.032	0.048	0.19	0.29

Client Sample ID: IA-46-F (061918)

Lab ID#: 1806477A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.040	0.46	0.20	2.3
Carbon Tetrachloride	0.040	0.081	0.25	0.51
Toluene	0.040	0.58	0.15	2.2
Ethyl Benzene	0.040	0.072	0.17	0.31
m,p-Xylene	0.080	0.34	0.34	1.5
o-Xylene	0.040	0.13	0.17	0.56

Client Sample ID: CS-46 (061918)

Lab ID#: 1806477A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.030	0.46	0.15	2.3
Carbon Tetrachloride	0.030	0.083	0.19	0.52
Benzene	0.074	0.083	0.24	0.26

Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS SIM

Client Sample ID: CS-46 (061918)

Lab ID#: 1806477A-06A

Toluene	0.030	0.36	0.11	1.4
Ethyl Benzene	0.030	0.050	0.13	0.22
m,p-Xylene	0.060	0.20	0.26	0.89
o-Xylene	0.030	0.088	0.13	0.38

Client Sample ID: IA-42-F (061918)

Lab ID#: 1806477A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.033	0.44	0.16	2.2
Chloromethane	0.83	2.2	1.7	4.5
Chloroform	0.033	0.18	0.16	0.86
Carbon Tetrachloride	0.033	0.091	0.21	0.57
Benzene	0.083	1.2	0.26	3.8
1,2-Dichloroethane	0.033	0.56	0.13	2.3
Toluene	0.033	2.1	0.12	7.8
Tetrachloroethene	0.033	1.6	0.22	11
Ethyl Benzene	0.033	0.41	0.14	1.8
m,p-Xylene	0.066	1.2	0.29	5.1
o-Xylene	0.033	0.31	0.14	1.3

Client Sample ID: IA-42-B (061918)

Lab ID#: 1806477A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.032	0.44	0.16	2.2
Chloromethane	0.80	1.7	1.6	3.4
Chloroform	0.032	0.19	0.16	0.92
Carbon Tetrachloride	0.032	0.084	0.20	0.53
Benzene	0.080	0.83	0.26	2.7
1,2-Dichloroethane	0.032	0.40	0.13	1.6
Toluene	0.032	1.3	0.12	4.8
Tetrachloroethene	0.032	2.6	0.22	17
Ethyl Benzene	0.032	0.23	0.14	0.99

Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS SIM

Client Sample ID: IA-42-B (061918)

Lab ID#: 1806477A-08A

m,p-Xylene	0.064	0.66	0.28	2.8
o-Xylene	0.032	0.18	0.14	0.79

Client Sample ID: CS-42 (061918)

Lab ID#: 1806477A-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.035	0.43	0.18	2.1
Freon 114	0.035	0.073	0.25	0.51
Chloroform	0.035	0.15	0.17	0.76
Carbon Tetrachloride	0.035	0.091	0.22	0.57
Benzene	0.088	0.87	0.28	2.8
1,2-Dichloroethane	0.035	0.39	0.14	1.6
Toluene	0.035	2.0	0.13	7.7
Tetrachloroethene	0.035	1.4	0.24	9.2
Ethyl Benzene	0.035	0.29	0.15	1.2
m,p-Xylene	0.071	1.1	0.31	4.6
o-Xylene	0.035	0.33	0.15	1.4
1,4-Dichlorobenzene	0.035	0.10	0.21	0.62

Client Sample ID: IA-43-F (061918)

Lab ID#: 1806477A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.042	0.46	0.21	2.3
Chloroform	0.042	0.14	0.21	0.67
Carbon Tetrachloride	0.042	0.096	0.27	0.60
Benzene	0.11	0.15	0.34	0.47
1,2-Dichloroethane	0.042	0.51	0.17	2.1
Toluene	0.042	1.2	0.16	4.4
Ethyl Benzene	0.042	0.10	0.18	0.45
m,p-Xylene	0.085	0.32	0.37	1.4
o-Xylene	0.042	0.13	0.18	0.57
1,4-Dichlorobenzene	0.042	0.19	0.25	1.2

Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS SIM

Client Sample ID: IA-43-B (061918)

Lab ID#: 1806477A-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.036	0.47	0.18	2.3
1,1-Dichloroethene	0.018	0.11	0.072	0.44
Chloroform	0.036	0.060	0.18	0.29
Carbon Tetrachloride	0.036	0.10	0.23	0.63
Benzene	0.091	0.11	0.29	0.34
1,2-Dichloroethane	0.036	0.26	0.15	1.0
Trichloroethene	0.036	0.18	0.20	0.98
Toluene	0.036	0.54	0.14	2.0
Ethyl Benzene	0.036	0.059	0.16	0.26
m,p-Xylene	0.073	0.17	0.32	0.74
o-Xylene	0.036	0.073	0.16	0.32
1,4-Dichlorobenzene	0.036	0.12	0.22	0.75

Client Sample ID: IA-44-F (062018)

Lab ID#: 1806477A-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.073	0.44	0.36	2.2
Chloromethane	1.8	2.8	3.8	5.9
Chloroform	0.073	0.10	0.36	0.50
Carbon Tetrachloride	0.073	0.073	0.46	0.46
Benzene	0.18	1.1	0.58	3.6
1,2-Dichloroethane	0.073	0.38	0.29	1.5
Toluene	0.073	2.7	0.27	10
Ethyl Benzene	0.073	0.31	0.32	1.3
m,p-Xylene	0.14	1.0	0.63	4.6
o-Xylene	0.073	0.27	0.32	1.2

Client Sample ID: IA-44-B (062018)

Lab ID#: 1806477A-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.076	0.43	0.38	2.1

Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS SIM

Client Sample ID: IA-44-B (062018)

Lab ID#: 1806477A-13A

Chloromethane	1.9	2.7	3.9	5.5
Chloroform	0.076	0.10	0.37	0.50
Benzene	0.19	1.0	0.61	3.3
1,2-Dichloroethane	0.076	0.33	0.31	1.4
Toluene	0.076	2.4	0.29	9.0
Ethyl Benzene	0.076	0.29	0.33	1.2
m,p-Xylene	0.15	0.97	0.66	4.2
o-Xylene	0.076	0.26	0.33	1.1

Client Sample ID: CS-44 (062018)

Lab ID#: 1806477A-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.066	0.44	0.33	2.2
Chloromethane	1.7	2.3	3.4	4.8
Chloroform	0.066	0.093	0.32	0.45
Carbon Tetrachloride	0.066	0.071	0.42	0.45
Benzene	0.17	0.92	0.53	2.9
1,2-Dichloroethane	0.066	0.29	0.27	1.2
Toluene	0.066	2.1	0.25	7.9
Ethyl Benzene	0.066	0.25	0.29	1.1
m,p-Xylene	0.13	0.84	0.58	3.6
o-Xylene	0.066	0.22	0.29	0.97

Client Sample ID: Amb-2 (062018)

Lab ID#: 1806477A-16A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.034	0.45	0.17	2.2
Carbon Tetrachloride	0.034	0.088	0.21	0.56
Toluene	0.034	0.17	0.13	0.66
m,p-Xylene	0.068	0.095	0.29	0.41
o-Xylene	0.034	0.038	0.15	0.17

Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS SIM

Client Sample ID: IA-45-F (062018)

Lab ID#: 1806477A-17A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.036	0.43	0.18	2.1
Chloroform	0.036	0.043	0.18	0.21
Carbon Tetrachloride	0.036	0.082	0.23	0.52
Benzene	0.091	0.12	0.29	0.37
1,2-Dichloroethane	0.036	0.073	0.15	0.29
Toluene	0.036	0.83	0.14	3.1
Tetrachloroethene	0.036	0.061	0.25	0.42
Ethyl Benzene	0.036	0.18	0.16	0.79
m,p-Xylene	0.073	0.54	0.32	2.3
o-Xylene	0.036	0.18	0.16	0.80

Client Sample ID: IA-48-F (062018)

Lab ID#: 1806477A-18A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.034	0.44	0.17	2.2
Carbon Tetrachloride	0.034	0.086	0.22	0.54
Benzene	0.086	0.16	0.27	0.50
Toluene	0.034	0.58	0.13	2.2
Ethyl Benzene	0.034	0.062	0.15	0.27
m,p-Xylene	0.068	0.18	0.30	0.80
o-Xylene	0.034	0.086	0.15	0.37

Client Sample ID: IA-48-B (062018)

Lab ID#: 1806477A-19A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.036	0.42	0.18	2.1
Carbon Tetrachloride	0.036	0.077	0.22	0.48
Benzene	0.089	0.13	0.28	0.43
Toluene	0.036	0.44	0.13	1.7
Ethyl Benzene	0.036	0.054	0.15	0.23
m,p-Xylene	0.071	0.16	0.31	0.71

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM

Client Sample ID: IA-48-B (062018)

Lab ID#: 1806477A-19A

o-Xylene	0.036	0.069	0.15	0.30
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Air Toxics

Client Sample ID: Amb-1 (061918)

Lab ID#: 1806477A-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v062907sim	Date of Collection: 6/20/18 8:43:00 AM
Dil. Factor:	1.66	Date of Analysis: 6/29/18 11:01 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.033	0.45	0.16	2.2
Freon 114	0.033	Not Detected	0.23	Not Detected
Chloromethane	0.83	Not Detected	1.7	Not Detected
Vinyl Chloride	0.017	Not Detected	0.042	Not Detected
Chloroethane	0.083	Not Detected	0.22	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.066	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.60	Not Detected
1,1-Dichloroethane	0.033	Not Detected	0.13	Not Detected
cis-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected
Chloroform	0.033	Not Detected	0.16	Not Detected
1,1,1-Trichloroethane	0.033	Not Detected	0.18	Not Detected
Carbon Tetrachloride	0.033	0.075	0.21	0.47
Benzene	0.083	0.083	0.26	0.26
1,2-Dichloroethane	0.033	Not Detected	0.13	Not Detected
Trichloroethene	0.033	Not Detected	0.18	Not Detected
Toluene	0.033	0.24	0.12	0.92
1,1,2-Trichloroethane	0.033	Not Detected	0.18	Not Detected
Tetrachloroethene	0.033	Not Detected	0.22	Not Detected
1,2-Dibromoethane (EDB)	0.033	Not Detected	0.26	Not Detected
Ethyl Benzene	0.033	0.047	0.14	0.20
m,p-Xylene	0.066	0.18	0.29	0.79
o-Xylene	0.033	0.082	0.14	0.36
1,1,2,2-Tetrachloroethane	0.033	Not Detected	0.23	Not Detected
1,4-Dichlorobenzene	0.033	Not Detected	0.20	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: IA-38-F (061918)

Lab ID#: 1806477A-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v062908sim	Date of Collection: 6/20/18 8:31:00 AM
Dil. Factor:	1.70	Date of Analysis: 6/29/18 11:52 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.034	0.42	0.17	2.1
Freon 114	0.034	Not Detected	0.24	Not Detected
Chloromethane	0.85	Not Detected	1.8	Not Detected
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
Chloroethane	0.085	Not Detected	0.22	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
trans-1,2-Dichloroethene	0.17	0.87	0.67	3.4
Methyl tert-butyl ether	0.17	Not Detected	0.61	Not Detected
1,1-Dichloroethane	0.034	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
Chloroform	0.034	Not Detected	0.17	Not Detected
1,1,1-Trichloroethane	0.034	Not Detected	0.18	Not Detected
Carbon Tetrachloride	0.034	0.081	0.21	0.51
Benzene	0.085	0.46	0.27	1.5
1,2-Dichloroethane	0.034	0.14	0.14	0.55
Trichloroethene	0.034	Not Detected	0.18	Not Detected
Toluene	0.034	5.5	0.13	21
1,1,2-Trichloroethane	0.034	Not Detected	0.18	Not Detected
Tetrachloroethene	0.034	0.042	0.23	0.29
1,2-Dibromoethane (EDB)	0.034	Not Detected	0.26	Not Detected
Ethyl Benzene	0.034	0.96	0.15	4.2
m,p-Xylene	0.068	3.6	0.30	16
o-Xylene	0.034	1.3	0.15	5.6
1,1,2,2-Tetrachloroethane	0.034	Not Detected	0.23	Not Detected
1,4-Dichlorobenzene	0.034	0.041	0.20	0.25

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: IA-39-F (061918)

Lab ID#: 1806477A-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v062909sim	Date of Collection: 6/20/18 10:27:00 AM
Dil. Factor:	1.69	Date of Analysis: 6/29/18 01:07 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.034	0.44	0.17	2.2
Freon 114	0.034	Not Detected	0.24	Not Detected
Chloromethane	0.84	Not Detected	1.7	Not Detected
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
Chloroethane	0.084	Not Detected	0.22	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.61	Not Detected
1,1-Dichloroethane	0.034	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
Chloroform	0.034	Not Detected	0.16	Not Detected
1,1,1-Trichloroethane	0.034	Not Detected	0.18	Not Detected
Carbon Tetrachloride	0.034	0.076	0.21	0.48
Benzene	0.084	Not Detected	0.27	Not Detected
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.034	Not Detected	0.18	Not Detected
Toluene	0.034	0.47	0.13	1.8
1,1,2-Trichloroethane	0.034	Not Detected	0.18	Not Detected
Tetrachloroethene	0.034	Not Detected	0.23	Not Detected
1,2-Dibromoethane (EDB)	0.034	Not Detected	0.26	Not Detected
Ethyl Benzene	0.034	0.12	0.15	0.50
m,p-Xylene	0.068	0.27	0.29	1.2
o-Xylene	0.034	0.10	0.15	0.46
1,1,2,2-Tetrachloroethane	0.034	Not Detected	0.23	Not Detected
1,4-Dichlorobenzene	0.034	Not Detected	0.20	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: IA-40-F (061918)

Lab ID#: 1806477A-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v062910sim	Date of Collection: 6/20/18 10:28:00 AM
Dil. Factor:	1.62	Date of Analysis: 6/29/18 01:44 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.032	0.43	0.16	2.1
Freon 114	0.032	Not Detected	0.23	Not Detected
Chloromethane	0.81	Not Detected	1.7	Not Detected
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
Chloroethane	0.081	Not Detected	0.21	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.064	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.58	Not Detected
1,1-Dichloroethane	0.032	Not Detected	0.13	Not Detected
cis-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected
Chloroform	0.032	0.085	0.16	0.42
1,1,1-Trichloroethane	0.032	Not Detected	0.18	Not Detected
Carbon Tetrachloride	0.032	0.084	0.20	0.53
Benzene	0.081	Not Detected	0.26	Not Detected
1,2-Dichloroethane	0.032	Not Detected	0.13	Not Detected
Trichloroethene	0.032	0.034	0.17	0.18
Toluene	0.032	0.73	0.12	2.7
1,1,2-Trichloroethane	0.032	Not Detected	0.18	Not Detected
Tetrachloroethene	0.032	Not Detected	0.22	Not Detected
1,2-Dibromoethane (EDB)	0.032	Not Detected	0.25	Not Detected
Ethyl Benzene	0.032	0.28	0.14	1.2
m,p-Xylene	0.065	0.64	0.28	2.8
o-Xylene	0.032	0.22	0.14	0.98
1,1,2,2-Tetrachloroethane	0.032	Not Detected	0.22	Not Detected
1,4-Dichlorobenzene	0.032	0.048	0.19	0.29

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: IA-46-F (061918)

Lab ID#: 1806477A-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v062911sim	Date of Collection: 6/20/18 2:51:00 PM
Dil. Factor:	1.99	Date of Analysis: 6/29/18 02:20 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.040	0.46	0.20	2.3
Freon 114	0.040	Not Detected	0.28	Not Detected
Chloromethane	1.0	Not Detected	2.0	Not Detected
Vinyl Chloride	0.020	Not Detected	0.051	Not Detected
Chloroethane	0.10	Not Detected	0.26	Not Detected
1,1-Dichloroethene	0.020	Not Detected	0.079	Not Detected
trans-1,2-Dichloroethene	0.20	Not Detected	0.79	Not Detected
Methyl tert-butyl ether	0.20	Not Detected	0.72	Not Detected
1,1-Dichloroethane	0.040	Not Detected	0.16	Not Detected
cis-1,2-Dichloroethene	0.040	Not Detected	0.16	Not Detected
Chloroform	0.040	Not Detected	0.19	Not Detected
1,1,1-Trichloroethane	0.040	Not Detected	0.22	Not Detected
Carbon Tetrachloride	0.040	0.081	0.25	0.51
Benzene	0.10	Not Detected	0.32	Not Detected
1,2-Dichloroethane	0.040	Not Detected	0.16	Not Detected
Trichloroethene	0.040	Not Detected	0.21	Not Detected
Toluene	0.040	0.58	0.15	2.2
1,1,2-Trichloroethane	0.040	Not Detected	0.22	Not Detected
Tetrachloroethene	0.040	Not Detected	0.27	Not Detected
1,2-Dibromoethane (EDB)	0.040	Not Detected	0.30	Not Detected
Ethyl Benzene	0.040	0.072	0.17	0.31
m,p-Xylene	0.080	0.34	0.34	1.5
o-Xylene	0.040	0.13	0.17	0.56
1,1,2,2-Tetrachloroethane	0.040	Not Detected	0.27	Not Detected
1,4-Dichlorobenzene	0.040	Not Detected	0.24	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: CS-46 (061918)

Lab ID#: 1806477A-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v062912sim	Date of Collection: 6/20/18 2:43:00 PM
Dil. Factor:	1.49	Date of Analysis: 6/29/18 02:58 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.030	0.46	0.15	2.3
Freon 114	0.030	Not Detected	0.21	Not Detected
Chloromethane	0.74	Not Detected	1.5	Not Detected
Vinyl Chloride	0.015	Not Detected	0.038	Not Detected
Chloroethane	0.074	Not Detected	0.20	Not Detected
1,1-Dichloroethene	0.015	Not Detected	0.059	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Methyl tert-butyl ether	0.15	Not Detected	0.54	Not Detected
1,1-Dichloroethane	0.030	Not Detected	0.12	Not Detected
cis-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected
Chloroform	0.030	Not Detected	0.14	Not Detected
1,1,1-Trichloroethane	0.030	Not Detected	0.16	Not Detected
Carbon Tetrachloride	0.030	0.083	0.19	0.52
Benzene	0.074	0.083	0.24	0.26
1,2-Dichloroethane	0.030	Not Detected	0.12	Not Detected
Trichloroethene	0.030	Not Detected	0.16	Not Detected
Toluene	0.030	0.36	0.11	1.4
1,1,2-Trichloroethane	0.030	Not Detected	0.16	Not Detected
Tetrachloroethene	0.030	Not Detected	0.20	Not Detected
1,2-Dibromoethane (EDB)	0.030	Not Detected	0.23	Not Detected
Ethyl Benzene	0.030	0.050	0.13	0.22
m,p-Xylene	0.060	0.20	0.26	0.89
o-Xylene	0.030	0.088	0.13	0.38
1,1,2,2-Tetrachloroethane	0.030	Not Detected	0.20	Not Detected
1,4-Dichlorobenzene	0.030	Not Detected	0.18	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: IA-42-F (061918)

Lab ID#: 1806477A-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v062913sim	Date of Collection: 6/20/18 4:43:00 PM
Dil. Factor:	1.66	Date of Analysis: 6/29/18 03:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.033	0.44	0.16	2.2
Freon 114	0.033	Not Detected	0.23	Not Detected
Chloromethane	0.83	2.2	1.7	4.5
Vinyl Chloride	0.017	Not Detected	0.042	Not Detected
Chloroethane	0.083	Not Detected	0.22	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.066	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.60	Not Detected
1,1-Dichloroethane	0.033	Not Detected	0.13	Not Detected
cis-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected
Chloroform	0.033	0.18	0.16	0.86
1,1,1-Trichloroethane	0.033	Not Detected	0.18	Not Detected
Carbon Tetrachloride	0.033	0.091	0.21	0.57
Benzene	0.083	1.2	0.26	3.8
1,2-Dichloroethane	0.033	0.56	0.13	2.3
Trichloroethene	0.033	Not Detected	0.18	Not Detected
Toluene	0.033	2.1	0.12	7.8
1,1,2-Trichloroethane	0.033	Not Detected	0.18	Not Detected
Tetrachloroethene	0.033	1.6	0.22	11
1,2-Dibromoethane (EDB)	0.033	Not Detected	0.26	Not Detected
Ethyl Benzene	0.033	0.41	0.14	1.8
m,p-Xylene	0.066	1.2	0.29	5.1
o-Xylene	0.033	0.31	0.14	1.3
1,1,2,2-Tetrachloroethane	0.033	Not Detected	0.23	Not Detected
1,4-Dichlorobenzene	0.033	Not Detected	0.20	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: IA-42-B (061918)

Lab ID#: 1806477A-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v062914sim	Date of Collection:	6/20/18 4:23:00 PM
Dil. Factor:	1.60	Date of Analysis:	6/29/18 04:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.032	0.44	0.16	2.2
Freon 114	0.032	Not Detected	0.22	Not Detected
Chloromethane	0.80	1.7	1.6	3.4
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
Chloroethane	0.080	Not Detected	0.21	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.063	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.58	Not Detected
1,1-Dichloroethane	0.032	Not Detected	0.13	Not Detected
cis-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected
Chloroform	0.032	0.19	0.16	0.92
1,1,1-Trichloroethane	0.032	Not Detected	0.17	Not Detected
Carbon Tetrachloride	0.032	0.084	0.20	0.53
Benzene	0.080	0.83	0.26	2.7
1,2-Dichloroethane	0.032	0.40	0.13	1.6
Trichloroethene	0.032	Not Detected	0.17	Not Detected
Toluene	0.032	1.3	0.12	4.8
1,1,2-Trichloroethane	0.032	Not Detected	0.17	Not Detected
Tetrachloroethene	0.032	2.6	0.22	17
1,2-Dibromoethane (EDB)	0.032	Not Detected	0.24	Not Detected
Ethyl Benzene	0.032	0.23	0.14	0.99
m,p-Xylene	0.064	0.66	0.28	2.8
o-Xylene	0.032	0.18	0.14	0.79
1,1,2,2-Tetrachloroethane	0.032	Not Detected	0.22	Not Detected
1,4-Dichlorobenzene	0.032	Not Detected	0.19	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: CS-42 (061918)

Lab ID#: 1806477A-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v062915sim	Date of Collection: 6/20/18 4:49:00 PM
Dil. Factor:	1.77	Date of Analysis: 6/29/18 04:52 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.035	0.43	0.18	2.1
Freon 114	0.035	0.073	0.25	0.51
Chloromethane	0.88	Not Detected	1.8	Not Detected
Vinyl Chloride	0.018	Not Detected	0.045	Not Detected
Chloroethane	0.088	Not Detected	0.23	Not Detected
1,1-Dichloroethene	0.018	Not Detected	0.070	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.70	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.64	Not Detected
1,1-Dichloroethane	0.035	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.035	Not Detected	0.14	Not Detected
Chloroform	0.035	0.15	0.17	0.76
1,1,1-Trichloroethane	0.035	Not Detected	0.19	Not Detected
Carbon Tetrachloride	0.035	0.091	0.22	0.57
Benzene	0.088	0.87	0.28	2.8
1,2-Dichloroethane	0.035	0.39	0.14	1.6
Trichloroethene	0.035	Not Detected	0.19	Not Detected
Toluene	0.035	2.0	0.13	7.7
1,1,2-Trichloroethane	0.035	Not Detected	0.19	Not Detected
Tetrachloroethene	0.035	1.4	0.24	9.2
1,2-Dibromoethane (EDB)	0.035	Not Detected	0.27	Not Detected
Ethyl Benzene	0.035	0.29	0.15	1.2
m,p-Xylene	0.071	1.1	0.31	4.6
o-Xylene	0.035	0.33	0.15	1.4
1,1,2,2-Tetrachloroethane	0.035	Not Detected	0.24	Not Detected
1,4-Dichlorobenzene	0.035	0.10	0.21	0.62

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: IA-43-F (061918)

Lab ID#: 1806477A-10A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v062916sim	Date of Collection:	6/20/18 6:34:00 PM
Dil. Factor:	2.12	Date of Analysis:	6/29/18 05:28 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.042	0.46	0.21	2.3
Freon 114	0.042	Not Detected	0.30	Not Detected
Chloromethane	1.1	Not Detected	2.2	Not Detected
Vinyl Chloride	0.021	Not Detected	0.054	Not Detected
Chloroethane	0.11	Not Detected	0.28	Not Detected
1,1-Dichloroethene	0.021	Not Detected	0.084	Not Detected
trans-1,2-Dichloroethene	0.21	Not Detected	0.84	Not Detected
Methyl tert-butyl ether	0.21	Not Detected	0.76	Not Detected
1,1-Dichloroethane	0.042	Not Detected	0.17	Not Detected
cis-1,2-Dichloroethene	0.042	Not Detected	0.17	Not Detected
Chloroform	0.042	0.14	0.21	0.67
1,1,1-Trichloroethane	0.042	Not Detected	0.23	Not Detected
Carbon Tetrachloride	0.042	0.096	0.27	0.60
Benzene	0.11	0.15	0.34	0.47
1,2-Dichloroethane	0.042	0.51	0.17	2.1
Trichloroethene	0.042	Not Detected	0.23	Not Detected
Toluene	0.042	1.2	0.16	4.4
1,1,2-Trichloroethane	0.042	Not Detected	0.23	Not Detected
Tetrachloroethene	0.042	Not Detected	0.29	Not Detected
1,2-Dibromoethane (EDB)	0.042	Not Detected	0.32	Not Detected
Ethyl Benzene	0.042	0.10	0.18	0.45
m,p-Xylene	0.085	0.32	0.37	1.4
o-Xylene	0.042	0.13	0.18	0.57
1,1,2,2-Tetrachloroethane	0.042	Not Detected	0.29	Not Detected
1,4-Dichlorobenzene	0.042	0.19	0.25	1.2

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: IA-43-B (061918)

Lab ID#: 1806477A-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v062917sim	Date of Collection: 6/20/18 6:25:00 PM
Dil. Factor:	1.82	Date of Analysis: 6/29/18 06:03 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.036	0.47	0.18	2.3
Freon 114	0.036	Not Detected	0.25	Not Detected
Chloromethane	0.91	Not Detected	1.9	Not Detected
Vinyl Chloride	0.018	Not Detected	0.046	Not Detected
Chloroethane	0.091	Not Detected	0.24	Not Detected
1,1-Dichloroethene	0.018	0.11	0.072	0.44
trans-1,2-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.66	Not Detected
1,1-Dichloroethane	0.036	Not Detected	0.15	Not Detected
cis-1,2-Dichloroethene	0.036	Not Detected	0.14	Not Detected
Chloroform	0.036	0.060	0.18	0.29
1,1,1-Trichloroethane	0.036	Not Detected	0.20	Not Detected
Carbon Tetrachloride	0.036	0.10	0.23	0.63
Benzene	0.091	0.11	0.29	0.34
1,2-Dichloroethane	0.036	0.26	0.15	1.0
Trichloroethene	0.036	0.18	0.20	0.98
Toluene	0.036	0.54	0.14	2.0
1,1,2-Trichloroethane	0.036	Not Detected	0.20	Not Detected
Tetrachloroethene	0.036	Not Detected	0.25	Not Detected
1,2-Dibromoethane (EDB)	0.036	Not Detected	0.28	Not Detected
Ethyl Benzene	0.036	0.059	0.16	0.26
m,p-Xylene	0.073	0.17	0.32	0.74
o-Xylene	0.036	0.073	0.16	0.32
1,1,2,2-Tetrachloroethane	0.036	Not Detected	0.25	Not Detected
1,4-Dichlorobenzene	0.036	0.12	0.22	0.75

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: IA-44-F (062018)

Lab ID#: 1806477A-12A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v062918sim	Date of Collection: 6/21/18 7:07:00 AM
Dil. Factor:	3.64	Date of Analysis: 6/29/18 06:39 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.073	0.44	0.36	2.2
Freon 114	0.073	Not Detected	0.51	Not Detected
Chloromethane	1.8	2.8	3.8	5.9
Vinyl Chloride	0.036	Not Detected	0.093	Not Detected
Chloroethane	0.18	Not Detected	0.48	Not Detected
1,1-Dichloroethene	0.036	Not Detected	0.14	Not Detected
trans-1,2-Dichloroethene	0.36	Not Detected	1.4	Not Detected
Methyl tert-butyl ether	0.36	Not Detected	1.3	Not Detected
1,1-Dichloroethane	0.073	Not Detected	0.29	Not Detected
cis-1,2-Dichloroethene	0.073	Not Detected	0.29	Not Detected
Chloroform	0.073	0.10	0.36	0.50
1,1,1-Trichloroethane	0.073	Not Detected	0.40	Not Detected
Carbon Tetrachloride	0.073	0.073	0.46	0.46
Benzene	0.18	1.1	0.58	3.6
1,2-Dichloroethane	0.073	0.38	0.29	1.5
Trichloroethene	0.073	Not Detected	0.39	Not Detected
Toluene	0.073	2.7	0.27	10
1,1,2-Trichloroethane	0.073	Not Detected	0.40	Not Detected
Tetrachloroethene	0.073	Not Detected	0.49	Not Detected
1,2-Dibromoethane (EDB)	0.073	Not Detected	0.56	Not Detected
Ethyl Benzene	0.073	0.31	0.32	1.3
m,p-Xylene	0.14	1.0	0.63	4.6
o-Xylene	0.073	0.27	0.32	1.2
1,1,2,2-Tetrachloroethane	0.073	Not Detected	0.50	Not Detected
1,4-Dichlorobenzene	0.073	Not Detected	0.44	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: IA-44-B (062018)

Lab ID#: 1806477A-13A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v062920sim	Date of Collection: 6/21/18 7:09:00 AM
Dil. Factor:	3.80	Date of Analysis: 6/29/18 08:15 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.076	0.43	0.38	2.1
Freon 114	0.076	Not Detected	0.53	Not Detected
Chloromethane	1.9	2.7	3.9	5.5
Vinyl Chloride	0.038	Not Detected	0.097	Not Detected
Chloroethane	0.19	Not Detected	0.50	Not Detected
1,1-Dichloroethene	0.038	Not Detected	0.15	Not Detected
trans-1,2-Dichloroethene	0.38	Not Detected	1.5	Not Detected
Methyl tert-butyl ether	0.38	Not Detected	1.4	Not Detected
1,1-Dichloroethane	0.076	Not Detected	0.31	Not Detected
cis-1,2-Dichloroethene	0.076	Not Detected	0.30	Not Detected
Chloroform	0.076	0.10	0.37	0.50
1,1,1-Trichloroethane	0.076	Not Detected	0.41	Not Detected
Carbon Tetrachloride	0.076	Not Detected	0.48	Not Detected
Benzene	0.19	1.0	0.61	3.3
1,2-Dichloroethane	0.076	0.33	0.31	1.4
Trichloroethene	0.076	Not Detected	0.41	Not Detected
Toluene	0.076	2.4	0.29	9.0
1,1,2-Trichloroethane	0.076	Not Detected	0.41	Not Detected
Tetrachloroethene	0.076	Not Detected	0.52	Not Detected
1,2-Dibromoethane (EDB)	0.076	Not Detected	0.58	Not Detected
Ethyl Benzene	0.076	0.29	0.33	1.2
m,p-Xylene	0.15	0.97	0.66	4.2
o-Xylene	0.076	0.26	0.33	1.1
1,1,2,2-Tetrachloroethane	0.076	Not Detected	0.52	Not Detected
1,4-Dichlorobenzene	0.076	Not Detected	0.46	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: CS-44 (062018)

Lab ID#: 1806477A-14A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v062921sim	Date of Collection: 6/21/18 7:23:00 AM
Dil. Factor:	3.32	Date of Analysis: 6/29/18 08:51 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.066	0.44	0.33	2.2
Freon 114	0.066	Not Detected	0.46	Not Detected
Chloromethane	1.7	2.3	3.4	4.8
Vinyl Chloride	0.033	Not Detected	0.085	Not Detected
Chloroethane	0.17	Not Detected	0.44	Not Detected
1,1-Dichloroethene	0.033	Not Detected	0.13	Not Detected
trans-1,2-Dichloroethene	0.33	Not Detected	1.3	Not Detected
Methyl tert-butyl ether	0.33	Not Detected	1.2	Not Detected
1,1-Dichloroethane	0.066	Not Detected	0.27	Not Detected
cis-1,2-Dichloroethene	0.066	Not Detected	0.26	Not Detected
Chloroform	0.066	0.093	0.32	0.45
1,1,1-Trichloroethane	0.066	Not Detected	0.36	Not Detected
Carbon Tetrachloride	0.066	0.071	0.42	0.45
Benzene	0.17	0.92	0.53	2.9
1,2-Dichloroethane	0.066	0.29	0.27	1.2
Trichloroethene	0.066	Not Detected	0.36	Not Detected
Toluene	0.066	2.1	0.25	7.9
1,1,2-Trichloroethane	0.066	Not Detected	0.36	Not Detected
Tetrachloroethene	0.066	Not Detected	0.45	Not Detected
1,2-Dibromoethane (EDB)	0.066	Not Detected	0.51	Not Detected
Ethyl Benzene	0.066	0.25	0.29	1.1
m,p-Xylene	0.13	0.84	0.58	3.6
o-Xylene	0.066	0.22	0.29	0.97
1,1,2,2-Tetrachloroethane	0.066	Not Detected	0.46	Not Detected
1,4-Dichlorobenzene	0.066	Not Detected	0.40	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: Amb-2 (062018)

Lab ID#: 1806477A-16A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v062919sim	Date of Collection: 6/21/18 1:02:00 PM
Dil. Factor:	1.69	Date of Analysis: 6/29/18 07:15 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.034	0.45	0.17	2.2
Freon 114	0.034	Not Detected	0.24	Not Detected
Chloromethane	0.84	Not Detected	1.7	Not Detected
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
Chloroethane	0.084	Not Detected	0.22	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.61	Not Detected
1,1-Dichloroethane	0.034	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
Chloroform	0.034	Not Detected	0.16	Not Detected
1,1,1-Trichloroethane	0.034	Not Detected	0.18	Not Detected
Carbon Tetrachloride	0.034	0.088	0.21	0.56
Benzene	0.084	Not Detected	0.27	Not Detected
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.034	Not Detected	0.18	Not Detected
Toluene	0.034	0.17	0.13	0.66
1,1,2-Trichloroethane	0.034	Not Detected	0.18	Not Detected
Tetrachloroethene	0.034	Not Detected	0.23	Not Detected
1,2-Dibromoethane (EDB)	0.034	Not Detected	0.26	Not Detected
Ethyl Benzene	0.034	Not Detected	0.15	Not Detected
m,p-Xylene	0.068	0.095	0.29	0.41
o-Xylene	0.034	0.038	0.15	0.17
1,1,2,2-Tetrachloroethane	0.034	Not Detected	0.23	Not Detected
1,4-Dichlorobenzene	0.034	Not Detected	0.20	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: IA-45-F (062018)

Lab ID#: 1806477A-17A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v062922sim	Date of Collection: 6/21/18 9:52:00 AM
Dil. Factor:	1.82	Date of Analysis: 6/29/18 09:27 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.036	0.43	0.18	2.1
Freon 114	0.036	Not Detected	0.25	Not Detected
Chloromethane	0.91	Not Detected	1.9	Not Detected
Vinyl Chloride	0.018	Not Detected	0.046	Not Detected
Chloroethane	0.091	Not Detected	0.24	Not Detected
1,1-Dichloroethene	0.018	Not Detected	0.072	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.66	Not Detected
1,1-Dichloroethane	0.036	Not Detected	0.15	Not Detected
cis-1,2-Dichloroethene	0.036	Not Detected	0.14	Not Detected
Chloroform	0.036	0.043	0.18	0.21
1,1,1-Trichloroethane	0.036	Not Detected	0.20	Not Detected
Carbon Tetrachloride	0.036	0.082	0.23	0.52
Benzene	0.091	0.12	0.29	0.37
1,2-Dichloroethane	0.036	0.073	0.15	0.29
Trichloroethene	0.036	Not Detected	0.20	Not Detected
Toluene	0.036	0.83	0.14	3.1
1,1,2-Trichloroethane	0.036	Not Detected	0.20	Not Detected
Tetrachloroethene	0.036	0.061	0.25	0.42
1,2-Dibromoethane (EDB)	0.036	Not Detected	0.28	Not Detected
Ethyl Benzene	0.036	0.18	0.16	0.79
m,p-Xylene	0.073	0.54	0.32	2.3
o-Xylene	0.036	0.18	0.16	0.80
1,1,2,2-Tetrachloroethane	0.036	Not Detected	0.25	Not Detected
1,4-Dichlorobenzene	0.036	Not Detected	0.22	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: IA-48-F (062018)

Lab ID#: 1806477A-18A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v062923sim	Date of Collection: 6/21/18 10:26:00 AM
Dil. Factor:	1.71	Date of Analysis: 6/29/18 10:02 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.034	0.44	0.17	2.2
Freon 114	0.034	Not Detected	0.24	Not Detected
Chloromethane	0.86	Not Detected	1.8	Not Detected
Vinyl Chloride	0.017	Not Detected	0.044	Not Detected
Chloroethane	0.086	Not Detected	0.22	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.068	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.62	Not Detected
1,1-Dichloroethane	0.034	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.14	Not Detected
Chloroform	0.034	Not Detected	0.17	Not Detected
1,1,1-Trichloroethane	0.034	Not Detected	0.19	Not Detected
Carbon Tetrachloride	0.034	0.086	0.22	0.54
Benzene	0.086	0.16	0.27	0.50
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.034	Not Detected	0.18	Not Detected
Toluene	0.034	0.58	0.13	2.2
1,1,2-Trichloroethane	0.034	Not Detected	0.19	Not Detected
Tetrachloroethene	0.034	Not Detected	0.23	Not Detected
1,2-Dibromoethane (EDB)	0.034	Not Detected	0.26	Not Detected
Ethyl Benzene	0.034	0.062	0.15	0.27
m,p-Xylene	0.068	0.18	0.30	0.80
o-Xylene	0.034	0.086	0.15	0.37
1,1,2,2-Tetrachloroethane	0.034	Not Detected	0.23	Not Detected
1,4-Dichlorobenzene	0.034	Not Detected	0.20	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: IA-48-B (062018)

Lab ID#: 1806477A-19A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v062924sim	Date of Collection: 6/21/18 10:15:00 AM
Dil. Factor:	1.78	Date of Analysis: 6/29/18 10:38 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.036	0.42	0.18	2.1
Freon 114	0.036	Not Detected	0.25	Not Detected
Chloromethane	0.89	Not Detected	1.8	Not Detected
Vinyl Chloride	0.018	Not Detected	0.046	Not Detected
Chloroethane	0.089	Not Detected	0.23	Not Detected
1,1-Dichloroethene	0.018	Not Detected	0.070	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.70	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.64	Not Detected
1,1-Dichloroethane	0.036	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.036	Not Detected	0.14	Not Detected
Chloroform	0.036	Not Detected	0.17	Not Detected
1,1,1-Trichloroethane	0.036	Not Detected	0.19	Not Detected
Carbon Tetrachloride	0.036	0.077	0.22	0.48
Benzene	0.089	0.13	0.28	0.43
1,2-Dichloroethane	0.036	Not Detected	0.14	Not Detected
Trichloroethene	0.036	Not Detected	0.19	Not Detected
Toluene	0.036	0.44	0.13	1.7
1,1,2-Trichloroethane	0.036	Not Detected	0.19	Not Detected
Tetrachloroethene	0.036	Not Detected	0.24	Not Detected
1,2-Dibromoethane (EDB)	0.036	Not Detected	0.27	Not Detected
Ethyl Benzene	0.036	0.054	0.15	0.23
m,p-Xylene	0.071	0.16	0.31	0.71
o-Xylene	0.036	0.069	0.15	0.30
1,1,2,2-Tetrachloroethane	0.036	Not Detected	0.24	Not Detected
1,4-Dichlorobenzene	0.036	Not Detected	0.21	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	103	70-130



Client Sample ID: Lab Blank

Lab ID#: 1806477A-20A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v062906sim	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/29/18 10:12 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.020	Not Detected	0.099	Not Detected
Freon 114	0.020	Not Detected	0.14	Not Detected
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Chloroethane	0.050	Not Detected	0.13	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
1,1-Dichloroethane	0.020	Not Detected	0.081	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
1,1,1-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Carbon Tetrachloride	0.020	Not Detected	0.12	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected
Toluene	0.020	Not Detected	0.075	Not Detected
1,1,2-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
1,2-Dibromoethane (EDB)	0.020	Not Detected	0.15	Not Detected
Ethyl Benzene	0.020	Not Detected	0.087	Not Detected
m,p-Xylene	0.040	Not Detected	0.17	Not Detected
o-Xylene	0.020	Not Detected	0.087	Not Detected
1,1,2,2-Tetrachloroethane	0.020	Not Detected	0.14	Not Detected
1,4-Dichlorobenzene	0.020	Not Detected	0.12	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: CCV

Lab ID#: 1806477A-21A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v062902sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/29/18 07:34 AM

Compound	%Recovery
Freon 12	92
Freon 114	95
Chloromethane	87
Vinyl Chloride	88
Chloroethane	100
1,1-Dichloroethene	90
trans-1,2-Dichloroethene	97
Methyl tert-butyl ether	96
1,1-Dichloroethane	96
cis-1,2-Dichloroethene	94
Chloroform	99
1,1,1-Trichloroethane	95
Carbon Tetrachloride	110
Benzene	90
1,2-Dichloroethane	100
Trichloroethene	97
Toluene	93
1,1,2-Trichloroethane	97
Tetrachloroethene	98
1,2-Dibromoethane (EDB)	97
Ethyl Benzene	92
m,p-Xylene	89
o-Xylene	88
1,1,2,2-Tetrachloroethane	91
1,4-Dichlorobenzene	82

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	92	70-130

Client Sample ID: LCS

Lab ID#: 1806477A-22A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v062903sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/29/18 08:12 AM

Compound	%Recovery	Method Limits
Freon 12	100	70-130
Freon 114	102	70-130
Chloromethane	96	70-130
Vinyl Chloride	97	70-130
Chloroethane	110	70-130
1,1-Dichloroethene	94	70-130
trans-1,2-Dichloroethene	112	70-130
Methyl tert-butyl ether	102	70-130
1,1-Dichloroethane	102	70-130
cis-1,2-Dichloroethene	92	70-130
Chloroform	104	70-130
1,1,1-Trichloroethane	101	70-130
Carbon Tetrachloride	119	60-140
Benzene	95	70-130
1,2-Dichloroethane	104	70-130
Trichloroethene	103	70-130
Toluene	99	70-130
1,1,2-Trichloroethane	102	70-130
Tetrachloroethene	103	70-130
1,2-Dibromoethane (EDB)	103	70-130
Ethyl Benzene	100	70-130
m,p-Xylene	98	70-130
o-Xylene	97	70-130
1,1,2,2-Tetrachloroethane	98	70-130
1,4-Dichlorobenzene	91	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	95	70-130

Client Sample ID: LCS D

Lab ID#: 1806477A-22AA

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v062904sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/29/18 08:48 AM

Compound	%Recovery	Method Limits
Freon 12	101	70-130
Freon 114	105	70-130
Chloromethane	98	70-130
Vinyl Chloride	99	70-130
Chloroethane	110	70-130
1,1-Dichloroethene	96	70-130
trans-1,2-Dichloroethene	115	70-130
Methyl tert-butyl ether	104	70-130
1,1-Dichloroethane	105	70-130
cis-1,2-Dichloroethene	94	70-130
Chloroform	106	70-130
1,1,1-Trichloroethane	103	70-130
Carbon Tetrachloride	121	60-140
Benzene	96	70-130
1,2-Dichloroethane	106	70-130
Trichloroethene	104	70-130
Toluene	99	70-130
1,1,2-Trichloroethane	105	70-130
Tetrachloroethene	106	70-130
1,2-Dibromoethane (EDB)	106	70-130
Ethyl Benzene	101	70-130
m,p-Xylene	96	70-130
o-Xylene	96	70-130
1,1,2,2-Tetrachloroethane	104	70-130
1,4-Dichlorobenzene	91	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	95	70-130



Air Toxics

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

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Page 1 of 4

Project Manager Don Retall

Collected by: (Print and Sign) Don Casey

Company Aradis

Address 150 W. Market St. Ste. 788

Phone (317) 231-6500

Project Info:
P.O. # Z N000911, 0910
Project # none
Project Name GG Tech City

Turn Around Time:
 Normal
 Rush
5-day

Lab Use Only
Pressurized by: _____
Date: _____
Pressurization Gas: _____
N₂ He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum		
						Initial	Final	Receipt Final (psi)
01A	Amb-1 (061918)	33554	6/19/18-4:29P	0107-0843	T015 see project lot	-30	-6.0	
02A	IA-38-F (061918)	6L0939	6/19/18-6/19/18	0912-0831		-30	-6.5	
03A	IA-39-F (061918)	6L0915	6/19/18-6/19/18	117-1022		-28.5	-6.0	
04A	IA-40-F (061918)	6L0964	6/19/18-6/19/18	1122-1028		-30	-6.0	
05A	IA-46-F (061918)	35171	6/19/18-6/19/18	1524-1451		-30	-9.5	
06A	CS-46 (061918)	6L0866	6/19/18-6/19/18	1528-1443		-30	-3.0	
07A	IA-42-F (061918)	6L0735	6/19/18-6/19/18	1730-1643		-30	-5.5	
08A	IA-42-B (061918)	6L0045	6/19/18-6/19/18	1749-1623		-30	-4.0	
09A	CS-42 (061918)	34226	6/19/18-6/19/18	1708-1649		-30	-7.5	
10A	IA-43-F (061918)	6L1401	6/19/18-6/19/18	1847-1834		-30	-10.5	

Notes: ↓

Relinquished by: (signature) [Signature] Date/Time 6/22/18 1430

Received by: (signature) [Signature] Date/Time 6/21/18 1010

Relinquished by: (signature) _____ Date/Time _____

Received by: (signature) _____ Date/Time _____

Relinquished by: (signature) _____ Date/Time _____

Received by: (signature) _____ Date/Time _____

Lab Use Only

Shipper Name ITOX Air Bill # _____ Temp (°C) KA Condition GOOD Custody Seals Intact? Yes No None Work Order # 1806477



Air Toxics

Sample Transportation Notice

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Page 2 of 4

Project Manager Da Petzold

Collected by: (Print and Sign) David Casley

Company Aerodis Email dm.petzold@eurofins.com

Address 150 W. Market St. Ste 400 San Bernardino State CA Zip 92404

Phone (919) 731-6500 Fax (919) 731-6514

Project Info:		Turn Around Time:	
P.O. # <u>INW0911.0016</u>	Project # <u>same</u>	<input type="checkbox"/> Normal	Lab Use Only Pressurized by: _____
Project Name <u>GS Teel City</u>		<input checked="" type="checkbox"/> Rush <u>S-day</u>	Date: _____
		Project Name <u>GS Teel City</u>	Pressurization Gas: _____
			N ₂ _____ He _____

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum		
						Initial	Final	Receipt Final (psi)
11A	IA-43-B (06/19/18)	GL1293	6/19/18-6/20/18	1845-1825	Tois see project	-30	-7.0	
12A	IA-44-F (06/20/18)	GL0432	6/20/18-6/21/18	0812-0702		-30	-6.0	
13A	IA-44-B (06/20/18)	GL1101	6/20/18-6/21/18	0813-0709		-30	-3.0	
14A	CS-44 (06/20/18)	GL1961	6/20/18-6/21/18	0814-0723		-30	-5.5	
	SS-38 (06/20/18)	LL1766	6/20/18-6/20/18	0904-0916		+26.5	-4.5	
16A	Amb-2 (06/20/18)	GL1013	6/20/18-6/21/18	0951-1302		-30	-4.5	
17A	IA-45-F (06/20/18)	GL0618	6/20/18-6/21/18	0952-0952		-30	-7.0	
18A	IA-48-F (06/20/18)	GL0010	6/20/18-6/21/18	1000-1026		-30	-5.0	
19A	IA-48-B (06/20/18)	GL0755	6/20/18-6/21/18	1102-1015		-30	-7.0	
	SS-39 (06/20/18)	1L2856	6/20/18-6/20/18	1115-1126		-29	-4.5	

Relinquished by: (signature) [Signature] Date/Time 6/20/18 1430

Received by: (signature) [Signature] Date/Time 6/20/18 1010

Relinquished by: (signature) _____ Date/Time _____

Received by: (signature) _____ Date/Time _____

Relinquished by: (signature) _____ Date/Time _____

Received by: (signature) _____ Date/Time _____

Notes: V

Lab Use Only: Shipper Name IMIX Air Bill # _____ Temp. (°C) NA Condition Good Custody Seals Intact? Yes No None Work Order # 1806477

6/29/2018
Mr. Jon Akin
Arcadis U.S., Inc.
150 W Market St, Ste 728

Indianapolis IN 46204

Project Name: GE Tell City
Project #: IN000911.0016
Workorder #: 1806477B

Dear Mr. Jon Akin

The following report includes the data for the above referenced project for sample(s) received on 6/25/2018 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 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: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott
Project Manager

WORK ORDER #: 1806477B

Work Order Summary

CLIENT:	Mr. Jon Akin Arcadis U.S., Inc. 150 W Market St, Ste 728 Indianapolis, IN 46204	BILL TO:	Accounts Payable Arcadis U.S., Inc. 630 Plaza Drive Suite 600 Highlands Ranch, CO 80129
PHONE:	317-231-6500	P.O. #	IN000911.0016
FAX:	317-231-6514	PROJECT #	IN000911.0016 GE Tell City
DATE RECEIVED:	06/25/2018	CONTACT:	Ausha Scott
DATE COMPLETED:	06/29/2018		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
15A	SS-38 (062018)	TO-15	4.7 "Hg	15 psi
20A	SS-39 (062018)	TO-15	4.3 "Hg	15.1 psi
21A	Lab Blank	TO-15	NA	NA
22A	CCV	TO-15	NA	NA
23A	LCS	TO-15	NA	NA
23AA	LCSD	TO-15	NA	NA

CERTIFIED BY: 
 Technical Director

DATE: 06/29/18

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

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

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LABORATORY NARRATIVE
EPA Method TO-15
Arcadis U.S., Inc.
Workorder# 1806477B

Two 1 Liter Summa Canister samples were received on June 25, 2018. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

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

B - Compound present in laboratory blank greater than reporting limit (background 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.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

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

Summary of Detected Compounds EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SS-38 (062018)

Lab ID#: 1806477B-15A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	2.8	6.7	16
Ethanol	4.8	84	9.0	160
Acetone	12	25	28	58
1,1,1-Trichloroethane	1.2	3.5	6.5	19
2,2,4-Trimethylpentane	1.2	8.5	5.6	40
Toluene	1.2	18	4.5	69
Tetrachloroethene	1.2	66	8.1	440
Ethyl Benzene	1.2	1.9	5.2	8.2
m,p-Xylene	1.2	16	5.2	69
o-Xylene	1.2	5.4	5.2	24

Client Sample ID: SS-39 (062018)

Lab ID#: 1806477B-20A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	4.7	48	8.9	90
Acetone	12	18	28	43
1,1,1-Trichloroethane	1.2	80	6.5	440
2,2,4-Trimethylpentane	1.2	4.7	5.5	22
Toluene	1.2	9.1	4.5	34
m,p-Xylene	1.2	7.8	5.1	34
o-Xylene	1.2	2.4	5.1	11



Air Toxics

Client Sample ID: SS-38 (062018)

Lab ID#: 1806477B-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a062714	Date of Collection:	6/20/18 9:16:00 AM
Dil. Factor:	2.40	Date of Analysis:	6/27/18 06:20 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	2.8	6.7	16
Ethanol	4.8	84	9.0	160
Freon 113	1.2	Not Detected	9.2	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	25	28	58
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.5	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	3.5	6.5	19
Cyclohexane	1.2	Not Detected	4.1	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
2,2,4-Trimethylpentane	1.2	8.5	5.6	40
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Heptane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.5	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.0	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.9	Not Detected
Toluene	1.2	18	4.5	69
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	66	8.1	440
2-Hexanone	4.8	Not Detected	20	Not Detected



Client Sample ID: SS-38 (062018)

Lab ID#: 1806477B-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a062714	Date of Collection:	6/20/18 9:16:00 AM
Dil. Factor:	2.40	Date of Analysis:	6/27/18 06:20 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.2	Not Detected
Chlorobenzene	1.2	Not Detected	5.5	Not Detected
Ethyl Benzene	1.2	1.9	5.2	8.2
m,p-Xylene	1.2	16	5.2	69
o-Xylene	1.2	5.4	5.2	24
Styrene	1.2	Not Detected	5.1	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Cumene	1.2	Not Detected	5.9	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.2	Not Detected
Propylbenzene	1.2	Not Detected	5.9	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.2	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	51	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: SS-39 (062018)

Lab ID#: 1806477B-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a062715	Date of Collection:	6/20/18 11:26:00 AM
Dil. Factor:	2.37	Date of Analysis:	6/27/18 06:46 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Freon 114	1.2	Not Detected	8.3	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.6	Not Detected
Ethanol	4.7	48	8.9	90
Freon 113	1.2	Not Detected	9.1	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Acetone	12	18	28	43
2-Propanol	4.7	Not Detected	12	Not Detected
Carbon Disulfide	4.7	Not Detected	15	Not Detected
3-Chloropropene	4.7	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	4.7	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.7	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.5	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	80	6.5	440
Cyclohexane	1.2	Not Detected	4.1	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.4	Not Detected
2,2,4-Trimethylpentane	1.2	4.7	5.5	22
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Heptane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.5	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.9	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	9.1	4.5	34
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	Not Detected	8.0	Not Detected
2-Hexanone	4.7	Not Detected	19	Not Detected



Client Sample ID: SS-39 (062018)

Lab ID#: 1806477B-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a062715	Date of Collection:	6/20/18 11:26:00 AM
Dil. Factor:	2.37	Date of Analysis:	6/27/18 06:46 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.1	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.1	Not Detected
m,p-Xylene	1.2	7.8	5.1	34
o-Xylene	1.2	2.4	5.1	11
Styrene	1.2	Not Detected	5.0	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Cumene	1.2	Not Detected	5.8	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.1	Not Detected
Propylbenzene	1.2	Not Detected	5.8	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.1	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	35	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	87	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1806477B-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a062705	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/27/18 11:53 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected



Client Sample ID: Lab Blank

Lab ID#: 1806477B-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a062705	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/27/18 11:53 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	87	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1806477B-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a062702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/27/18 10:14 AM

Compound	%Recovery
Freon 12	106
Freon 114	109
Chloromethane	92
Vinyl Chloride	99
1,3-Butadiene	95
Bromomethane	105
Chloroethane	101
Freon 11	106
Ethanol	94
Freon 113	106
1,1-Dichloroethene	103
Acetone	98
2-Propanol	88
Carbon Disulfide	101
3-Chloropropene	96
Methylene Chloride	105
Methyl tert-butyl ether	101
trans-1,2-Dichloroethene	111
Hexane	98
1,1-Dichloroethane	103
2-Butanone (Methyl Ethyl Ketone)	100
cis-1,2-Dichloroethene	104
Tetrahydrofuran	84
Chloroform	101
1,1,1-Trichloroethane	97
Cyclohexane	95
Carbon Tetrachloride	101
2,2,4-Trimethylpentane	97
Benzene	98
1,2-Dichloroethane	104
Heptane	94
Trichloroethene	105
1,2-Dichloropropane	98
1,4-Dioxane	88
Bromodichloromethane	102
cis-1,3-Dichloropropene	100
4-Methyl-2-pentanone	91
Toluene	96
trans-1,3-Dichloropropene	95
1,1,2-Trichloroethane	100
Tetrachloroethene	112
2-Hexanone	80

Client Sample ID: CCV

Lab ID#: 1806477B-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a062702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/27/18 10:14 AM

Compound	%Recovery
Dibromochloromethane	107
1,2-Dibromoethane (EDB)	104
Chlorobenzene	103
Ethyl Benzene	101
m,p-Xylene	102
o-Xylene	102
Styrene	88
Bromoform	111
Cumene	100
1,1,2,2-Tetrachloroethane	95
Propylbenzene	96
4-Ethyltoluene	96
1,3,5-Trimethylbenzene	102
1,2,4-Trimethylbenzene	98
1,3-Dichlorobenzene	108
1,4-Dichlorobenzene	103
alpha-Chlorotoluene	93
1,2-Dichlorobenzene	107
1,2,4-Trichlorobenzene	116
Hexachlorobutadiene	114

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1806477B-23A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a062703	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/27/18 10:39 AM

Compound	%Recovery	Method Limits
Freon 12	103	70-130
Freon 114	106	70-130
Chloromethane	94	70-130
Vinyl Chloride	98	70-130
1,3-Butadiene	88	70-130
Bromomethane	105	70-130
Chloroethane	98	70-130
Freon 11	101	70-130
Ethanol	101	70-130
Freon 113	104	70-130
1,1-Dichloroethene	104	70-130
Acetone	96	70-130
2-Propanol	99	70-130
Carbon Disulfide	103	70-130
3-Chloropropene	102	70-130
Methylene Chloride	100	70-130
Methyl tert-butyl ether	91	70-130
trans-1,2-Dichloroethene	110	70-130
Hexane	91	70-130
1,1-Dichloroethane	97	70-130
2-Butanone (Methyl Ethyl Ketone)	94	70-130
cis-1,2-Dichloroethene	91	70-130
Tetrahydrofuran	84	70-130
Chloroform	96	70-130
1,1,1-Trichloroethane	95	70-130
Cyclohexane	92	70-130
Carbon Tetrachloride	100	70-130
2,2,4-Trimethylpentane	96	70-130
Benzene	95	70-130
1,2-Dichloroethane	103	70-130
Heptane	95	70-130
Trichloroethene	103	70-130
1,2-Dichloropropane	96	70-130
1,4-Dioxane	95	70-130
Bromodichloromethane	102	70-130
cis-1,3-Dichloropropene	104	70-130
4-Methyl-2-pentanone	96	70-130
Toluene	94	70-130
trans-1,3-Dichloropropene	94	70-130
1,1,2-Trichloroethane	100	70-130
Tetrachloroethene	105	70-130
2-Hexanone	90	70-130

Client Sample ID: LCS

Lab ID#: 1806477B-23A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a062703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/27/18 10:39 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	107	70-130
1,2-Dibromoethane (EDB)	102	70-130
Chlorobenzene	101	70-130
Ethyl Benzene	102	70-130
m,p-Xylene	103	70-130
o-Xylene	101	70-130
Styrene	97	70-130
Bromoform	113	70-130
Cumene	99	70-130
1,1,2,2-Tetrachloroethane	96	70-130
Propylbenzene	97	70-130
4-Ethyltoluene	100	70-130
1,3,5-Trimethylbenzene	104	70-130
1,2,4-Trimethylbenzene	102	70-130
1,3-Dichlorobenzene	108	70-130
1,4-Dichlorobenzene	105	70-130
alpha-Chlorotoluene	105	70-130
1,2-Dichlorobenzene	107	70-130
1,2,4-Trichlorobenzene	112	70-130
Hexachlorobutadiene	108	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	105	70-130



Air Toxics

Client Sample ID: LCS D

Lab ID#: 1806477B-23AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a062704	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/27/18 11:03 AM

Compound	%Recovery	Method Limits
Freon 12	103	70-130
Freon 114	107	70-130
Chloromethane	96	70-130
Vinyl Chloride	98	70-130
1,3-Butadiene	88	70-130
Bromomethane	104	70-130
Chloroethane	96	70-130
Freon 11	104	70-130
Ethanol	93	70-130
Freon 113	100	70-130
1,1-Dichloroethene	100	70-130
Acetone	90	70-130
2-Propanol	94	70-130
Carbon Disulfide	102	70-130
3-Chloropropene	96	70-130
Methylene Chloride	102	70-130
Methyl tert-butyl ether	97	70-130
trans-1,2-Dichloroethene	118	70-130
Hexane	92	70-130
1,1-Dichloroethane	99	70-130
2-Butanone (Methyl Ethyl Ketone)	99	70-130
cis-1,2-Dichloroethene	94	70-130
Tetrahydrofuran	85	70-130
Chloroform	98	70-130
1,1,1-Trichloroethane	96	70-130
Cyclohexane	93	70-130
Carbon Tetrachloride	101	70-130
2,2,4-Trimethylpentane	96	70-130
Benzene	94	70-130
1,2-Dichloroethane	100	70-130
Heptane	94	70-130
Trichloroethene	102	70-130
1,2-Dichloropropane	96	70-130
1,4-Dioxane	92	70-130
Bromodichloromethane	101	70-130
cis-1,3-Dichloropropene	104	70-130
4-Methyl-2-pentanone	93	70-130
Toluene	93	70-130
trans-1,3-Dichloropropene	88	70-130
1,1,2-Trichloroethane	93	70-130
Tetrachloroethene	100	70-130
2-Hexanone	86	70-130

Client Sample ID: LCSD

Lab ID#: 1806477B-23AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a062704	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/27/18 11:03 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	102	70-130
1,2-Dibromoethane (EDB)	98	70-130
Chlorobenzene	100	70-130
Ethyl Benzene	97	70-130
m,p-Xylene	98	70-130
o-Xylene	98	70-130
Styrene	95	70-130
Bromoform	109	70-130
Cumene	94	70-130
1,1,2,2-Tetrachloroethane	95	70-130
Propylbenzene	95	70-130
4-Ethyltoluene	98	70-130
1,3,5-Trimethylbenzene	103	70-130
1,2,4-Trimethylbenzene	97	70-130
1,3-Dichlorobenzene	105	70-130
1,4-Dichlorobenzene	100	70-130
alpha-Chlorotoluene	103	70-130
1,2-Dichlorobenzene	103	70-130
1,2,4-Trichlorobenzene	111	70-130
Hexachlorobutadiene	108	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Sample Transportation Notice

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180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager Da Petzold

Page 2 of 4

Collected by: (Print and Sign) Brian Lealey

Project Info:

P.O. # INW0911.0016

Turn Around Time:

Normal

Rush

Lab Use Only Pressurized by:

Date:

Pressurization Gas:

N₂ He

Company Auradis Email dan.petzold@auradis.com
Address 150 W. Market St #208 City Baldwinville State IN Zip 46004
Phone (317) 231-6500 Fax (317) 231-6514

Project Name GG Teel City

specify

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum		
						Initial	Final	Receipt Final (psi)
	IA-43-B (06/19/18)	6L1293	6/19/18-6/20/18	1845-1805	POIS see project	-30	-7.0	
	IA-44-F (06/20/18)	6L0492	6/20/18-6/21/18	0812-0707		-30	-6.0	
	IA-44-B (06/20/18)	6L1101	6/20/18-6/21/18	0813-0709		-30	-2.0	
	CS-44 (06/20/18)	6L1461	6/20/18-6/21/18	0814-0723		-30	-5.5	
15A	SS-38 (06/20/18)	1L1766	6/20/18-6/20/18	0904-0916		-26.5	-4.5	
	Amh-2 (06/20/18)	6L1013	6/20/18-6/21/18	0951-1302		-30	-4.5	
	PA-45-F (06/20/18)	6L0618	6/20/18-6/21/18	0958-0952		-30	-7.0	
	PA-48-F (06/20/18)	6L0010	6/20/18-6/21/18	1005-1026		-30	-5.0	
	PA-48-B (06/20/18)	6L0755	6/20/18-6/21/18	1102-1015		-30	-7.0	
20A	SS-39 (06/20/18)	1L2686	6/20/18-6/20/18	115-1126		-27	-4.5	

Notes:

Relinquished by: (signature) [Signature] Date/Time 6/20/18 1430
Received by: (signature) [Signature] Date/Time 6/20/18 1010

Relinquished by: (signature) _____ Date/Time _____
Received by: (signature) _____ Date/Time _____

Shipper Name TRIX Air Bill # _____ Temp (°C) AT Condition Good Custody Seals Intact? Yes No None Work Order # 1806477

6/29/2018
Mr. Jon Akin
Arcadis U.S., Inc.
150 W Market St, Ste 728

Indianapolis IN 46204

Project Name: GE Tell City
Project #: IN000911.0016
Workorder #: 1806478A

Dear Mr. Jon Akin

The following report includes the data for the above referenced project for sample(s) received on 6/25/2018 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 SIM 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: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott
Project Manager

WORK ORDER #: 1806478A

Work Order Summary

CLIENT:	Mr. Jon Akin Arcadis U.S., Inc. 150 W Market St, Ste 728 Indianapolis, IN 46204	BILL TO:	Accounts Payable Arcadis U.S., Inc. 630 Plaza Drive Suite 600 Highlands Ranch, CO 80129
PHONE:	317-231-6500	P.O. #	IN000911.0016
FAX:	317-231-6514	PROJECT #	IN000911.0016 GE Tell City
DATE RECEIVED:	06/25/2018	CONTACT:	Ausha Scott
DATE COMPLETED:	06/29/2018		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
03A	IA-47-F (062018)	Modified TO-15 SIM	9.4 "Hg	5 psi
11A	IA-49-F (062118)	Modified TO-15 SIM	7.3 "Hg	4.8 psi
12A	IA-49-B (062118)	Modified TO-15 SIM	9 "Hg	5.3 psi
13A	DUP-1 (062118)	Modified TO-15 SIM	7.1 "Hg	5.1 psi
14A	IA-50-F (062118)	Modified TO-15 SIM	7.6 "Hg	5 psi
15A	IA-50-B (062118)	Modified TO-15 SIM	7.1 "Hg	4.9 psi
16A	Lab Blank	Modified TO-15 SIM	NA	NA
17A	CCV	Modified TO-15 SIM	NA	NA
18A	LCS	Modified TO-15 SIM	NA	NA
18AA	LCSD	Modified TO-15 SIM	NA	NA

CERTIFIED BY: 

 Technical Director

DATE: 06/29/18

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

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 SIM
Arcadis U.S., Inc.
Workorder# 1806478A

Six 6 Liter Summa Canister (SIM Certified) samples were received on June 25, 2018. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
ICAL %RSD acceptance criteria	$\leq 30\%$ RSD with 2 compounds allowed out to $< 40\%$ RSD	Project specific; default criteria is $\leq 30\%$ RSD with 10% of compounds allowed out to $< 40\%$ RSD
Daily Calibration	$\pm 30\%$ Difference	Project specific; default criteria is $\leq 30\%$ Difference with 10% of compounds allowed out up to $\leq 40\%$.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Dilution was performed on sample IA-49-F (062118) due to the presence of high level non-target species.

Definition of Data Qualifying Flags

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

B - Compound present in laboratory blank greater than reporting limit (background 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

Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS SIM

Client Sample ID: IA-47-F (062018)

Lab ID#: 1806478A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.039	0.47	0.19	2.3
Carbon Tetrachloride	0.039	0.079	0.24	0.50
Benzene	0.098	1.1	0.31	3.5
1,2-Dichloroethane	0.039	0.082	0.16	0.33
Toluene	0.039	3.5	0.15	13
Ethyl Benzene	0.039	0.41	0.17	1.8
m,p-Xylene	0.078	1.5	0.34	6.4
o-Xylene	0.039	0.54	0.17	2.3

Client Sample ID: IA-49-F (062118)

Lab ID#: 1806478A-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.088	0.46	0.44	2.3
Benzene	0.22	0.26	0.70	0.83
1,2-Dichloroethane	0.088	2.1	0.36	8.5
Toluene	0.088	3.1	0.33	12
Ethyl Benzene	0.088	0.22	0.38	0.96
m,p-Xylene	0.18	0.70	0.76	3.0
o-Xylene	0.088	0.23	0.38	0.99

Client Sample ID: IA-49-B (062118)

Lab ID#: 1806478A-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.039	0.46	0.19	2.2
Chloroform	0.039	0.061	0.19	0.30
Carbon Tetrachloride	0.039	0.076	0.24	0.48
Benzene	0.097	0.25	0.31	0.79
1,2-Dichloroethane	0.039	1.4	0.16	5.5
Toluene	0.039	2.8	0.15	10
Ethyl Benzene	0.039	0.19	0.17	0.84
m,p-Xylene	0.078	0.65	0.34	2.8

Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS SIM

Client Sample ID: IA-49-B (062118)

Lab ID#: 1806478A-12A

o-Xylene	0.039	0.22	0.17	0.97
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Client Sample ID: DUP-1 (062118)

Lab ID#: 1806478A-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.035	0.47	0.18	2.3
Chloroform	0.035	0.062	0.17	0.30
Carbon Tetrachloride	0.035	0.078	0.22	0.49
Benzene	0.088	0.26	0.28	0.82
1,2-Dichloroethane	0.035	1.3	0.14	5.4
Toluene	0.035	2.9	0.13	11
Ethyl Benzene	0.035	0.20	0.15	0.85
m,p-Xylene	0.071	0.64	0.31	2.8
o-Xylene	0.035	0.22	0.15	0.94

Client Sample ID: IA-50-F (062118)

Lab ID#: 1806478A-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.036	0.45	0.18	2.2
Chloroform	0.036	2.9	0.17	14
Carbon Tetrachloride	0.036	0.087	0.22	0.55
Benzene	0.090	0.18	0.28	0.58
1,2-Dichloroethane	0.036	0.55	0.14	2.2
Trichloroethene	0.036	0.077	0.19	0.41
Toluene	0.036	5.6	0.13	21
Tetrachloroethene	0.036	0.037	0.24	0.25
Ethyl Benzene	0.036	0.54	0.16	2.3
m,p-Xylene	0.072	1.6	0.31	6.7
o-Xylene	0.036	0.60	0.16	2.6

Client Sample ID: IA-50-B (062118)

Lab ID#: 1806478A-15A

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM

Client Sample ID: IA-50-B (062118)

Lab ID#: 1806478A-15A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.035	0.44	0.17	2.2
Chloroform	0.035	2.7	0.17	13
Carbon Tetrachloride	0.035	0.086	0.22	0.54
Benzene	0.088	0.18	0.28	0.58
1,2-Dichloroethane	0.035	0.45	0.14	1.8
Trichloroethene	0.035	0.092	0.19	0.49
Toluene	0.035	4.4	0.13	17
Ethyl Benzene	0.035	0.47	0.15	2.0
m,p-Xylene	0.070	1.4	0.30	6.2
o-Xylene	0.035	0.56	0.15	2.4
1,4-Dichlorobenzene	0.035	0.035	0.21	0.21

Client Sample ID: IA-47-F (062018)

Lab ID#: 1806478A-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	21062618sim	Date of Collection: 6/21/18 3:10:00 PM
Dil. Factor:	1.95	Date of Analysis: 6/26/18 06:18 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.039	0.47	0.19	2.3
Freon 114	0.039	Not Detected	0.27	Not Detected
Chloromethane	0.98	Not Detected	2.0	Not Detected
Vinyl Chloride	0.020	Not Detected	0.050	Not Detected
Chloroethane	0.098	Not Detected	0.26	Not Detected
1,1-Dichloroethene	0.020	Not Detected	0.077	Not Detected
trans-1,2-Dichloroethene	0.20	Not Detected	0.77	Not Detected
Methyl tert-butyl ether	0.20	Not Detected	0.70	Not Detected
1,1-Dichloroethane	0.039	Not Detected	0.16	Not Detected
cis-1,2-Dichloroethene	0.039	Not Detected	0.15	Not Detected
Chloroform	0.039	Not Detected	0.19	Not Detected
1,1,1-Trichloroethane	0.039	Not Detected	0.21	Not Detected
Carbon Tetrachloride	0.039	0.079	0.24	0.50
Benzene	0.098	1.1	0.31	3.5
1,2-Dichloroethane	0.039	0.082	0.16	0.33
Trichloroethene	0.039	Not Detected	0.21	Not Detected
Toluene	0.039	3.5	0.15	13
1,1,2-Trichloroethane	0.039	Not Detected	0.21	Not Detected
Tetrachloroethene	0.039	Not Detected	0.26	Not Detected
1,2-Dibromoethane (EDB)	0.039	Not Detected	0.30	Not Detected
Ethyl Benzene	0.039	0.41	0.17	1.8
m,p-Xylene	0.078	1.5	0.34	6.4
o-Xylene	0.039	0.54	0.17	2.3
1,1,2,2-Tetrachloroethane	0.039	Not Detected	0.27	Not Detected
1,4-Dichlorobenzene	0.039	Not Detected	0.23	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	92	70-130



Air Toxics

Client Sample ID: IA-49-F (062118)

Lab ID#: 1806478A-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	21062620sim	Date of Collection: 6/22/18 12:34:00 PM
Dil. Factor:	4.40	Date of Analysis: 6/26/18 07:29 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.088	0.46	0.44	2.3
Freon 114	0.088	Not Detected	0.62	Not Detected
Chloromethane	2.2	Not Detected	4.5	Not Detected
Vinyl Chloride	0.044	Not Detected	0.11	Not Detected
Chloroethane	0.22	Not Detected	0.58	Not Detected
1,1-Dichloroethene	0.044	Not Detected	0.17	Not Detected
trans-1,2-Dichloroethene	0.44	Not Detected	1.7	Not Detected
Methyl tert-butyl ether	0.44	Not Detected	1.6	Not Detected
1,1-Dichloroethane	0.088	Not Detected	0.36	Not Detected
cis-1,2-Dichloroethene	0.088	Not Detected	0.35	Not Detected
Chloroform	0.088	Not Detected	0.43	Not Detected
1,1,1-Trichloroethane	0.088	Not Detected	0.48	Not Detected
Carbon Tetrachloride	0.088	Not Detected	0.55	Not Detected
Benzene	0.22	0.26	0.70	0.83
1,2-Dichloroethane	0.088	2.1	0.36	8.5
Trichloroethene	0.088	Not Detected	0.47	Not Detected
Toluene	0.088	3.1	0.33	12
1,1,2-Trichloroethane	0.088	Not Detected	0.48	Not Detected
Tetrachloroethene	0.088	Not Detected	0.60	Not Detected
1,2-Dibromoethane (EDB)	0.088	Not Detected	0.68	Not Detected
Ethyl Benzene	0.088	0.22	0.38	0.96
m,p-Xylene	0.18	0.70	0.76	3.0
o-Xylene	0.088	0.23	0.38	0.99
1,1,2,2-Tetrachloroethane	0.088	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.088	Not Detected	0.53	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	89	70-130



Air Toxics

Client Sample ID: IA-49-B (062118)

Lab ID#: 1806478A-12A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	21062619sim	Date of Collection: 6/22/18 1:09:00 PM
Dil. Factor:	1.94	Date of Analysis: 6/26/18 06:53 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.039	0.46	0.19	2.2
Freon 114	0.039	Not Detected	0.27	Not Detected
Chloromethane	0.97	Not Detected	2.0	Not Detected
Vinyl Chloride	0.019	Not Detected	0.050	Not Detected
Chloroethane	0.097	Not Detected	0.26	Not Detected
1,1-Dichloroethene	0.019	Not Detected	0.077	Not Detected
trans-1,2-Dichloroethene	0.19	Not Detected	0.77	Not Detected
Methyl tert-butyl ether	0.19	Not Detected	0.70	Not Detected
1,1-Dichloroethane	0.039	Not Detected	0.16	Not Detected
cis-1,2-Dichloroethene	0.039	Not Detected	0.15	Not Detected
Chloroform	0.039	0.061	0.19	0.30
1,1,1-Trichloroethane	0.039	Not Detected	0.21	Not Detected
Carbon Tetrachloride	0.039	0.076	0.24	0.48
Benzene	0.097	0.25	0.31	0.79
1,2-Dichloroethane	0.039	1.4	0.16	5.5
Trichloroethene	0.039	Not Detected	0.21	Not Detected
Toluene	0.039	2.8	0.15	10
1,1,2-Trichloroethane	0.039	Not Detected	0.21	Not Detected
Tetrachloroethene	0.039	Not Detected	0.26	Not Detected
1,2-Dibromoethane (EDB)	0.039	Not Detected	0.30	Not Detected
Ethyl Benzene	0.039	0.19	0.17	0.84
m,p-Xylene	0.078	0.65	0.34	2.8
o-Xylene	0.039	0.22	0.17	0.97
1,1,2,2-Tetrachloroethane	0.039	Not Detected	0.27	Not Detected
1,4-Dichlorobenzene	0.039	Not Detected	0.23	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	94	70-130



Air Toxics

Client Sample ID: DUP-1 (062118)

Lab ID#: 1806478A-13A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	21062621sim	Date of Collection:	6/22/18
Dil. Factor:	1.77	Date of Analysis:	6/26/18 08:26 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.035	0.47	0.18	2.3
Freon 114	0.035	Not Detected	0.25	Not Detected
Chloromethane	0.88	Not Detected	1.8	Not Detected
Vinyl Chloride	0.018	Not Detected	0.045	Not Detected
Chloroethane	0.088	Not Detected	0.23	Not Detected
1,1-Dichloroethene	0.018	Not Detected	0.070	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.70	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.64	Not Detected
1,1-Dichloroethane	0.035	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.035	Not Detected	0.14	Not Detected
Chloroform	0.035	0.062	0.17	0.30
1,1,1-Trichloroethane	0.035	Not Detected	0.19	Not Detected
Carbon Tetrachloride	0.035	0.078	0.22	0.49
Benzene	0.088	0.26	0.28	0.82
1,2-Dichloroethane	0.035	1.3	0.14	5.4
Trichloroethene	0.035	Not Detected	0.19	Not Detected
Toluene	0.035	2.9	0.13	11
1,1,2-Trichloroethane	0.035	Not Detected	0.19	Not Detected
Tetrachloroethene	0.035	Not Detected	0.24	Not Detected
1,2-Dibromoethane (EDB)	0.035	Not Detected	0.27	Not Detected
Ethyl Benzene	0.035	0.20	0.15	0.85
m,p-Xylene	0.071	0.64	0.31	2.8
o-Xylene	0.035	0.22	0.15	0.94
1,1,2,2-Tetrachloroethane	0.035	Not Detected	0.24	Not Detected
1,4-Dichlorobenzene	0.035	Not Detected	0.21	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	92	70-130



Air Toxics

Client Sample ID: IA-50-F (062118)

Lab ID#: 1806478A-14A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	21062622sim	Date of Collection: 6/22/18 1:15:00 PM
Dil. Factor:	1.79	Date of Analysis: 6/26/18 09:02 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.036	0.45	0.18	2.2
Freon 114	0.036	Not Detected	0.25	Not Detected
Chloromethane	0.90	Not Detected	1.8	Not Detected
Vinyl Chloride	0.018	Not Detected	0.046	Not Detected
Chloroethane	0.090	Not Detected	0.24	Not Detected
1,1-Dichloroethene	0.018	Not Detected	0.071	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.64	Not Detected
1,1-Dichloroethane	0.036	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.036	Not Detected	0.14	Not Detected
Chloroform	0.036	2.9	0.17	14
1,1,1-Trichloroethane	0.036	Not Detected	0.20	Not Detected
Carbon Tetrachloride	0.036	0.087	0.22	0.55
Benzene	0.090	0.18	0.28	0.58
1,2-Dichloroethane	0.036	0.55	0.14	2.2
Trichloroethene	0.036	0.077	0.19	0.41
Toluene	0.036	5.6	0.13	21
1,1,2-Trichloroethane	0.036	Not Detected	0.20	Not Detected
Tetrachloroethene	0.036	0.037	0.24	0.25
1,2-Dibromoethane (EDB)	0.036	Not Detected	0.28	Not Detected
Ethyl Benzene	0.036	0.54	0.16	2.3
m,p-Xylene	0.072	1.6	0.31	6.7
o-Xylene	0.036	0.60	0.16	2.6
1,1,2,2-Tetrachloroethane	0.036	Not Detected	0.24	Not Detected
1,4-Dichlorobenzene	0.036	Not Detected	0.22	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: IA-50-B (062118)

Lab ID#: 1806478A-15A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	21062623sim	Date of Collection: 6/22/18 1:16:00 PM
Dil. Factor:	1.75	Date of Analysis: 6/26/18 09:38 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.035	0.44	0.17	2.2
Freon 114	0.035	Not Detected	0.24	Not Detected
Chloromethane	0.88	Not Detected	1.8	Not Detected
Vinyl Chloride	0.018	Not Detected	0.045	Not Detected
Chloroethane	0.088	Not Detected	0.23	Not Detected
1,1-Dichloroethene	0.018	Not Detected	0.069	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.63	Not Detected
1,1-Dichloroethane	0.035	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.035	Not Detected	0.14	Not Detected
Chloroform	0.035	2.7	0.17	13
1,1,1-Trichloroethane	0.035	Not Detected	0.19	Not Detected
Carbon Tetrachloride	0.035	0.086	0.22	0.54
Benzene	0.088	0.18	0.28	0.58
1,2-Dichloroethane	0.035	0.45	0.14	1.8
Trichloroethene	0.035	0.092	0.19	0.49
Toluene	0.035	4.4	0.13	17
1,1,2-Trichloroethane	0.035	Not Detected	0.19	Not Detected
Tetrachloroethene	0.035	Not Detected	0.24	Not Detected
1,2-Dibromoethane (EDB)	0.035	Not Detected	0.27	Not Detected
Ethyl Benzene	0.035	0.47	0.15	2.0
m,p-Xylene	0.070	1.4	0.30	6.2
o-Xylene	0.035	0.56	0.15	2.4
1,1,2,2-Tetrachloroethane	0.035	Not Detected	0.24	Not Detected
1,4-Dichlorobenzene	0.035	0.035	0.21	0.21

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: Lab Blank

Lab ID#: 1806478A-16A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	21062606sim	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/26/18 10:46 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.020	Not Detected	0.099	Not Detected
Freon 114	0.020	Not Detected	0.14	Not Detected
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Chloroethane	0.050	Not Detected	0.13	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
1,1-Dichloroethane	0.020	Not Detected	0.081	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
1,1,1-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Carbon Tetrachloride	0.020	Not Detected	0.12	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected
Toluene	0.020	Not Detected	0.075	Not Detected
1,1,2-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
1,2-Dibromoethane (EDB)	0.020	Not Detected	0.15	Not Detected
Ethyl Benzene	0.020	Not Detected	0.087	Not Detected
m,p-Xylene	0.040	Not Detected	0.17	Not Detected
o-Xylene	0.020	Not Detected	0.087	Not Detected
1,1,2,2-Tetrachloroethane	0.020	Not Detected	0.14	Not Detected
1,4-Dichlorobenzene	0.020	Not Detected	0.12	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	89	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1806478A-17A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	21062602sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/26/18 08:05 AM

Compound	%Recovery
Freon 12	99
Freon 114	94
Chloromethane	91
Vinyl Chloride	93
Chloroethane	99
1,1-Dichloroethene	93
trans-1,2-Dichloroethene	97
Methyl tert-butyl ether	100
1,1-Dichloroethane	97
cis-1,2-Dichloroethene	98
Chloroform	97
1,1,1-Trichloroethane	96
Carbon Tetrachloride	102
Benzene	96
1,2-Dichloroethane	98
Trichloroethene	98
Toluene	102
1,1,2-Trichloroethane	110
Tetrachloroethene	101
1,2-Dibromoethane (EDB)	114
Ethyl Benzene	110
m,p-Xylene	113
o-Xylene	113
1,1,2,2-Tetrachloroethane	116
1,4-Dichlorobenzene	93

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1806478A-18A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	21062603sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/26/18 08:41 AM

Compound	%Recovery	Method Limits
Freon 12	96	70-130
Freon 114	92	70-130
Chloromethane	90	70-130
Vinyl Chloride	92	70-130
Chloroethane	98	70-130
1,1-Dichloroethene	88	70-130
trans-1,2-Dichloroethene	101	70-130
Methyl tert-butyl ether	95	70-130
1,1-Dichloroethane	92	70-130
cis-1,2-Dichloroethene	86	70-130
Chloroform	93	70-130
1,1,1-Trichloroethane	93	70-130
Carbon Tetrachloride	98	60-140
Benzene	91	70-130
1,2-Dichloroethane	93	70-130
Trichloroethene	94	70-130
Toluene	96	70-130
1,1,2-Trichloroethane	110	70-130
Tetrachloroethene	97	70-130
1,2-Dibromoethane (EDB)	114	70-130
Ethyl Benzene	108	70-130
m,p-Xylene	115	70-130
o-Xylene	115	70-130
1,1,2,2-Tetrachloroethane	116	70-130
1,4-Dichlorobenzene	99	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1806478A-18AA

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	21062604sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/26/18 09:17 AM

Compound	%Recovery	Method Limits
Freon 12	96	70-130
Freon 114	92	70-130
Chloromethane	90	70-130
Vinyl Chloride	92	70-130
Chloroethane	99	70-130
1,1-Dichloroethene	90	70-130
trans-1,2-Dichloroethene	102	70-130
Methyl tert-butyl ether	98	70-130
1,1-Dichloroethane	94	70-130
cis-1,2-Dichloroethene	87	70-130
Chloroform	94	70-130
1,1,1-Trichloroethane	94	70-130
Carbon Tetrachloride	99	60-140
Benzene	91	70-130
1,2-Dichloroethane	94	70-130
Trichloroethene	94	70-130
Toluene	96	70-130
1,1,2-Trichloroethane	112	70-130
Tetrachloroethene	97	70-130
1,2-Dibromoethane (EDB)	115	70-130
Ethyl Benzene	108	70-130
m,p-Xylene	113	70-130
o-Xylene	112	70-130
1,1,2,2-Tetrachloroethane	117	70-130
1,4-Dichlorobenzene	95	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

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 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 3 of 4

Project Manager Don Retzold

Collected by: (Print and Sign) Brian Celsky

Company Aradis

Address Behr Market St, Ste 300, Redwood State Park, Yuba

Phone (317) 231-6800 Fax (317) 231-6814

Project Info:

P.O. # IN000911.0016

Project # none

Project Name GS Sell City

Turn Around Time:

Normal

Rush

5-day speedy

Lab Use Only
Pressurized by:

Date:

Pressurization Gas:

N₂ He

Lab I.D. Field Sample I.D. (Location)

SS-40 (062018)-A

SS-40 (062018)-B

FA-47-F (062018)

SS-42 (062018)

SS-43 (062018)

SS-44 (062018)

SS-45 (062018)

SS-48 (062018)

SS-47 (062018)

SS-46 (062018)

Can #

1L27445

1L27789

6L0722

80009

1L24905

1L27912

1L2683

1L2858

1L3009

1L2987

Date of Collection

6/20/18-6/20/18

6/20/18-6/20/18

6/20/18-6/20/18

6/20/18-6/20/18

6/20/18-6/20/18

6/21/18-6/21/18

6/21/18-6/21/18

6/21/18-6/21/18

6/21/18-6/21/18

6/21/18-6/21/18

Time of Collection

0944-1059

1205-1229

1207-1510

1631-1646

1816-1830

0716-0731

0929-0946

1003-1039

1000-1015

1532-1546

Analyses Requested

POB see project list

Canister Pressure/Vacuum

Initial Final

-295 -1.5

-30 -4.0

-30 -8.0

-30 -4.0

-30 -5.0

-30 -4.5

-30 -3.0

-30 -4.5

-30 -4.0

-30 -5.0

Notes:

See "hold" above

Relinquished by: (signature) Date/Time

Relinquished by: (signature) Date/Time

Relinquished by: (signature) Date/Time

Relinquished by: (signature) Date/Time

Received by: (signature) Date/Time

Received by: (signature) Date/Time

Received by: (signature) Date/Time

Received by: (signature) Date/Time

Shipper Name

THIX

Air Bill #

AA

Temp (°C)

6000

Condition

Custody Seals Intact? Yes No None

Work Order #

1806478



Air Toxics

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 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager Don Pettold

Collected by: (Print and Sign) Don Pettold

Company Aerodis

Address 150 W. Market St. Ste. 200

Phone (317) 231-6800

Fax (317) 231-6514

Project Info:

P.O. # IN000911, 0016

Project # None

Project Name GE Tech CTR

Turn Around Time:

Normal

Rush

5-day

Lab Use Only

Pressurized by:

Date:

Pressurization Gas:

N₂ He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum			
						Initial	Final	Receipt	Final (psi)
11A	IA-49-F (062118)	6L1688	6/21/18	1406-1234	Vol's see project 2018	-29	-6.5		
12A	IA-49-B (062118)	6L0900	6/21/18	1408-1309		-30	-7.5		
13A	IA-50-1 (062118)	6L1313	6/21/18			-30	-7.5		
14A	IA-50-F (062118)	6L0973	6/21/18	1424-1215		-29.5	-7.0		
15A	IA-50-B (062118)	6L1541	6/21/18	1425-1216		-30	-6.5		
	SS-49 (062118)	8020	6/21/18	1243-1300		-30	-1.5		
	SS-50 (062118)	7999	6/21/18	1334-1350		-29	-3.0		

Relinquished by: (signature) [Signature] Date/Time 6/22/18 1430 Received by: (signature) [Signature] Date/Time 06/25/18 1010

Relinquished by: (signature) [Signature] Date/Time 6/22/18 1430 Received by: (signature) [Signature] Date/Time 06/25/18 1010

Relinquished by: (signature) _____ Date/Time _____ Received by: (signature) _____ Date/Time _____

Shipper Name F1702X Air Bill # _____ Temp (°C) 4.4 Condition GOOD Custody Seals Intact? Yes No None Work Order # 1806478

Notes: See bills above

Hold

7/2/2018

Mr. Jon Akin
Arcadis U.S., Inc.
150 W Market St, Ste 728

Indianapolis IN 46204

Project Name: GE Tell City
Project #: IN000911.0016
Workorder #: 1806478B

Dear Mr. Jon Akin

The following report includes the data for the above referenced project for sample(s) received on 6/25/2018 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 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: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott
Project Manager

WORK ORDER #: 1806478B

Work Order Summary

CLIENT:	Mr. Jon Akin Arcadis U.S., Inc. 150 W Market St, Ste 728 Indianapolis, IN 46204	BILL TO:	Accounts Payable Arcadis U.S., Inc. 630 Plaza Drive Suite 600 Highlands Ranch, CO 80129
PHONE:	317-231-6500	P.O. #	IN000911.0016
FAX:	317-231-6514	PROJECT #	IN000911.0016 GE Tell City
DATE RECEIVED:	06/25/2018	CONTACT:	Ausha Scott
DATE COMPLETED:	07/02/2018		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
02A	SS-40 (062018)-B	TO-15	4.9 "Hg	14.7 psi
04A	SS-42 (062018)	TO-15	3.9 "Hg	14.8 psi
05A	SS-43 (062018)	TO-15	5.1 "Hg	14.9 psi
06A	SS-44 (062118)	TO-15	4.1 "Hg	14.7 psi
07A	SS-45 (062118)	TO-15	3.7 "Hg	15.1 psi
08A	SS-48 (062118)	TO-15	5.5 "Hg	14.9 psi
09A	SS-47 (062118)	TO-15	4.5 "Hg	15.1 psi
10A	SS-46 (062118)	TO-15	5.3 "Hg	14.6 psi
17A	SS-50 (062218)	TO-15	4.9 "Hg	14.8 psi
18A	Lab Blank	TO-15	NA	NA
19A	CCV	TO-15	NA	NA
20A	LCS	TO-15	NA	NA
20AA	LCSD	TO-15	NA	NA

CERTIFIED BY: 

 Technical Director

DATE: 07/02/18

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

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
Arcadis U.S., Inc.
Workorder# 1806478B

Nine 1 Liter Summa Canister samples were received on June 25, 2018. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Dilution was performed on samples SS-40 (062018)-B and SS-50 (062218) due to the presence of high level target species.

Definition of Data Qualifying Flags

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

B - Compound present in laboratory blank greater than reporting limit (background 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.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

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

Summary of Detected Compounds EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SS-40 (062018)-B

Lab ID#: 1806478B-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	6.4	97	12	180
Acetone	16	82	38	200
2-Propanol	6.4	6.7	16	16
Chloroform	1.6	2.5	7.8	12
1,1,1-Trichloroethane	1.6	2.2	8.7	12
2,2,4-Trimethylpentane	1.6	3.5	7.4	16
Trichloroethene	1.6	630	8.6	3400
Toluene	1.6	6.4	6.0	24
Tetrachloroethene	1.6	8.6	11	59
m,p-Xylene	1.6	6.7	6.9	29
o-Xylene	1.6	2.5	6.9	11

Client Sample ID: SS-42 (062018)

Lab ID#: 1806478B-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	1.2	5.7	6.1
Ethanol	4.6	84	8.7	160
Acetone	12	17	27	40
2-Propanol	4.6	36	11	88
trans-1,2-Dichloroethene	1.2	2.3	4.6	9.1
1,1,1-Trichloroethane	1.2	1.5	6.3	8.1
Carbon Tetrachloride	1.2	1.3	7.3	8.2
2,2,4-Trimethylpentane	1.2	1.9	5.4	8.9
Trichloroethene	1.2	140	6.2	730
Toluene	1.2	6.3	4.4	24
m,p-Xylene	1.2	4.9	5.0	21
o-Xylene	1.2	1.7	5.0	7.5

Client Sample ID: SS-43 (062018)

Lab ID#: 1806478B-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
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Summary of Detected Compounds EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SS-43 (062018)

Lab ID#: 1806478B-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	4.9	18	9.2	33
Acetone	12	15	29	36
2,2,4-Trimethylpentane	1.2	2.1	5.7	10
Toluene	1.2	5.9	4.6	22
Tetrachloroethene	1.2	1.8	8.2	12
m,p-Xylene	1.2	5.9	5.3	26
o-Xylene	1.2	2.1	5.3	9.0

Client Sample ID: SS-44 (062118)

Lab ID#: 1806478B-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	4.6	19	8.7	36
2,2,4-Trimethylpentane	1.2	6.4	5.4	30
Toluene	1.2	12	4.4	44
m,p-Xylene	1.2	8.0	5.0	35
o-Xylene	1.2	2.6	5.0	12

Client Sample ID: SS-45 (062118)

Lab ID#: 1806478B-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	4.6	140	8.7	260
Acetone	12	15	27	36
2-Propanol	4.6	5.4	11	13
2,2,4-Trimethylpentane	1.2	3.4	5.4	16
Toluene	1.2	6.0	4.4	23
m,p-Xylene	1.2	5.1	5.0	22
o-Xylene	1.2	1.7	5.0	7.6

Client Sample ID: SS-48 (062118)

Lab ID#: 1806478B-08A

Summary of Detected Compounds EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SS-48 (062118)

Lab ID#: 1806478B-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	4.9	77	9.3	140
Acetone	12	13	29	30
2-Propanol	4.9	22	12	55
2,2,4-Trimethylpentane	1.2	2.6	5.7	12
Trichloroethene	1.2	35	6.6	190
Toluene	1.2	4.6	4.6	17
Tetrachloroethene	1.2	1.3	8.3	8.6
m,p-Xylene	1.2	4.1	5.3	18
o-Xylene	1.2	1.4	5.3	6.2

Client Sample ID: SS-47 (062118)

Lab ID#: 1806478B-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	4.8	38	9.0	71
Acetone	12	13	28	30
2-Propanol	4.8	4.9	12	12
2,2,4-Trimethylpentane	1.2	3.4	5.6	16
Toluene	1.2	5.6	4.5	21
m,p-Xylene	1.2	4.8	5.2	21
o-Xylene	1.2	1.7	5.2	7.5

Client Sample ID: SS-46 (062118)

Lab ID#: 1806478B-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	20	29	46
2,2,4-Trimethylpentane	1.2	2.1	5.6	10
Toluene	1.2	4.9	4.6	18
m,p-Xylene	1.2	4.8	5.2	21
o-Xylene	1.2	2.0	5.2	8.6

**Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN**

Client Sample ID: SS-50 (062218)

Lab ID#: 1806478B-17A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.6	8.5	7.9	42
Ethanol	6.4	7.5	12	14
1,1,1-Trichloroethane	1.6	3.3	8.7	18
2,2,4-Trimethylpentane	1.6	1.9	7.5	9.0
Trichloroethene	1.6	480	8.6	2600
Toluene	1.6	2.5	6.0	9.4
m,p-Xylene	1.6	2.6	6.9	11



Air Toxics

Client Sample ID: SS-40 (062018)-B

Lab ID#: 1806478B-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062613	Date of Collection:	6/20/18 12:29:00 PM
Dil. Factor:	3.19	Date of Analysis:	6/26/18 05:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.6	Not Detected	7.9	Not Detected
Freon 114	1.6	Not Detected	11	Not Detected
Chloromethane	16	Not Detected	33	Not Detected
Vinyl Chloride	1.6	Not Detected	4.1	Not Detected
1,3-Butadiene	1.6	Not Detected	3.5	Not Detected
Bromomethane	16	Not Detected	62	Not Detected
Chloroethane	6.4	Not Detected	17	Not Detected
Freon 11	1.6	Not Detected	9.0	Not Detected
Ethanol	6.4	97	12	180
Freon 113	1.6	Not Detected	12	Not Detected
1,1-Dichloroethene	1.6	Not Detected	6.3	Not Detected
Acetone	16	82	38	200
2-Propanol	6.4	6.7	16	16
Carbon Disulfide	6.4	Not Detected	20	Not Detected
3-Chloropropene	6.4	Not Detected	20	Not Detected
Methylene Chloride	16	Not Detected	55	Not Detected
Methyl tert-butyl ether	6.4	Not Detected	23	Not Detected
trans-1,2-Dichloroethene	1.6	Not Detected	6.3	Not Detected
Hexane	1.6	Not Detected	5.6	Not Detected
1,1-Dichloroethane	1.6	Not Detected	6.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	6.4	Not Detected	19	Not Detected
cis-1,2-Dichloroethene	1.6	Not Detected	6.3	Not Detected
Tetrahydrofuran	1.6	Not Detected	4.7	Not Detected
Chloroform	1.6	2.5	7.8	12
1,1,1-Trichloroethane	1.6	2.2	8.7	12
Cyclohexane	1.6	Not Detected	5.5	Not Detected
Carbon Tetrachloride	1.6	Not Detected	10	Not Detected
2,2,4-Trimethylpentane	1.6	3.5	7.4	16
Benzene	1.6	Not Detected	5.1	Not Detected
1,2-Dichloroethane	1.6	Not Detected	6.4	Not Detected
Heptane	1.6	Not Detected	6.5	Not Detected
Trichloroethene	1.6	630	8.6	3400
1,2-Dichloropropane	1.6	Not Detected	7.4	Not Detected
1,4-Dioxane	6.4	Not Detected	23	Not Detected
Bromodichloromethane	1.6	Not Detected	11	Not Detected
cis-1,3-Dichloropropene	1.6	Not Detected	7.2	Not Detected
4-Methyl-2-pentanone	1.6	Not Detected	6.5	Not Detected
Toluene	1.6	6.4	6.0	24
trans-1,3-Dichloropropene	1.6	Not Detected	7.2	Not Detected
1,1,2-Trichloroethane	1.6	Not Detected	8.7	Not Detected
Tetrachloroethene	1.6	8.6	11	59
2-Hexanone	6.4	Not Detected	26	Not Detected



Air Toxics

Client Sample ID: SS-40 (062018)-B

Lab ID#: 1806478B-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062613	Date of Collection:	6/20/18 12:29:00 PM
Dil. Factor:	3.19	Date of Analysis:	6/26/18 05:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.6	Not Detected	14	Not Detected
1,2-Dibromoethane (EDB)	1.6	Not Detected	12	Not Detected
Chlorobenzene	1.6	Not Detected	7.3	Not Detected
Ethyl Benzene	1.6	Not Detected	6.9	Not Detected
m,p-Xylene	1.6	6.7	6.9	29
o-Xylene	1.6	2.5	6.9	11
Styrene	1.6	Not Detected	6.8	Not Detected
Bromoform	1.6	Not Detected	16	Not Detected
Cumene	1.6	Not Detected	7.8	Not Detected
1,1,2,2-Tetrachloroethane	1.6	Not Detected	11	Not Detected
Propylbenzene	1.6	Not Detected	7.8	Not Detected
4-Ethyltoluene	1.6	Not Detected	7.8	Not Detected
1,3,5-Trimethylbenzene	1.6	Not Detected	7.8	Not Detected
1,2,4-Trimethylbenzene	1.6	Not Detected	7.8	Not Detected
1,3-Dichlorobenzene	1.6	Not Detected	9.6	Not Detected
1,4-Dichlorobenzene	1.6	Not Detected	9.6	Not Detected
alpha-Chlorotoluene	1.6	Not Detected	8.2	Not Detected
1,2-Dichlorobenzene	1.6	Not Detected	9.6	Not Detected
1,2,4-Trichlorobenzene	6.4	Not Detected	47	Not Detected
Hexachlorobutadiene	6.4	Not Detected	68	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	95	70-130



Air Toxics

Client Sample ID: SS-42 (062018)

Lab ID#: 1806478B-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062614	Date of Collection:	6/20/18 4:46:00 PM
Dil. Factor:	2.31	Date of Analysis:	6/26/18 06:11 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	1.2	5.7	6.1
Freon 114	1.2	Not Detected	8.1	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
Ethanol	4.6	84	8.7	160
Freon 113	1.2	Not Detected	8.8	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Acetone	12	17	27	40
2-Propanol	4.6	36	11	88
Carbon Disulfide	4.6	Not Detected	14	Not Detected
3-Chloropropene	4.6	Not Detected	14	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Methyl tert-butyl ether	4.6	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	2.3	4.6	9.1
Hexane	1.2	Not Detected	4.1	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.4	Not Detected
Chloroform	1.2	Not Detected	5.6	Not Detected
1,1,1-Trichloroethane	1.2	1.5	6.3	8.1
Cyclohexane	1.2	Not Detected	4.0	Not Detected
Carbon Tetrachloride	1.2	1.3	7.3	8.2
2,2,4-Trimethylpentane	1.2	1.9	5.4	8.9
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Heptane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	140	6.2	730
1,2-Dichloropropane	1.2	Not Detected	5.3	Not Detected
1,4-Dioxane	4.6	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.7	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.7	Not Detected
Toluene	1.2	6.3	4.4	24
trans-1,3-Dichloropropene	1.2	Not Detected	5.2	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Tetrachloroethene	1.2	Not Detected	7.8	Not Detected
2-Hexanone	4.6	Not Detected	19	Not Detected



Client Sample ID: SS-42 (062018)

Lab ID#: 1806478B-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062614	Date of Collection:	6/20/18 4:46:00 PM
Dil. Factor:	2.31	Date of Analysis:	6/26/18 06:11 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	9.8	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	8.9	Not Detected
Chlorobenzene	1.2	Not Detected	5.3	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	4.9	5.0	21
o-Xylene	1.2	1.7	5.0	7.5
Styrene	1.2	Not Detected	4.9	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Cumene	1.2	Not Detected	5.7	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	7.9	Not Detected
Propylbenzene	1.2	Not Detected	5.7	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.7	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: SS-43 (062018)

Lab ID#: 1806478B-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062615	Date of Collection:	6/20/18 6:30:00 PM
Dil. Factor:	2.43	Date of Analysis:	6/26/18 06:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.5	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
1,3-Butadiene	1.2	Not Detected	2.7	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.9	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
Ethanol	4.9	18	9.2	33
Freon 113	1.2	Not Detected	9.3	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	15	29	36
2-Propanol	4.9	Not Detected	12	Not Detected
Carbon Disulfide	4.9	Not Detected	15	Not Detected
3-Chloropropene	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.9	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.6	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Cyclohexane	1.2	Not Detected	4.2	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
2,2,4-Trimethylpentane	1.2	2.1	5.7	10
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Heptane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	Not Detected	6.5	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	5.9	4.6	22
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	1.8	8.2	12
2-Hexanone	4.9	Not Detected	20	Not Detected



Air Toxics

Client Sample ID: SS-43 (062018)

Lab ID#: 1806478B-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062615	Date of Collection:	6/20/18 6:30:00 PM
Dil. Factor:	2.43	Date of Analysis:	6/26/18 06:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.3	Not Detected
m,p-Xylene	1.2	5.9	5.3	26
o-Xylene	1.2	2.1	5.3	9.0
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Cumene	1.2	Not Detected	6.0	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
Propylbenzene	1.2	Not Detected	6.0	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.0	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,2,4-Trichlorobenzene	4.9	Not Detected	36	Not Detected
Hexachlorobutadiene	4.9	Not Detected	52	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: SS-44 (062118)

Lab ID#: 1806478B-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062619	Date of Collection:	6/21/18 7:31:00 AM
Dil. Factor:	2.32	Date of Analysis:	6/26/18 10:10 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.7	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
Ethanol	4.6	19	8.7	36
Freon 113	1.2	Not Detected	8.9	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Acetone	12	Not Detected	28	Not Detected
2-Propanol	4.6	Not Detected	11	Not Detected
Carbon Disulfide	4.6	Not Detected	14	Not Detected
3-Chloropropene	4.6	Not Detected	14	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Methyl tert-butyl ether	4.6	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.4	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Cyclohexane	1.2	Not Detected	4.0	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
2,2,4-Trimethylpentane	1.2	6.4	5.4	30
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Heptane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.2	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,4-Dioxane	4.6	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	12	4.4	44
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Tetrachloroethene	1.2	Not Detected	7.9	Not Detected
2-Hexanone	4.6	Not Detected	19	Not Detected



Client Sample ID: SS-44 (062118)

Lab ID#: 1806478B-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062619	Date of Collection:	6/21/18 7:31:00 AM
Dil. Factor:	2.32	Date of Analysis:	6/26/18 10:10 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	9.9	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	8.9	Not Detected
Chlorobenzene	1.2	Not Detected	5.3	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	8.0	5.0	35
o-Xylene	1.2	2.6	5.0	12
Styrene	1.2	Not Detected	4.9	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Cumene	1.2	Not Detected	5.7	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
Propylbenzene	1.2	Not Detected	5.7	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.7	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: SS-45 (062118)

Lab ID#: 1806478B-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062620	Date of Collection:	6/21/18 9:46:00 AM
Dil. Factor:	2.31	Date of Analysis:	6/26/18 10:39 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.7	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
Ethanol	4.6	140	8.7	260
Freon 113	1.2	Not Detected	8.8	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Acetone	12	15	27	36
2-Propanol	4.6	5.4	11	13
Carbon Disulfide	4.6	Not Detected	14	Not Detected
3-Chloropropene	4.6	Not Detected	14	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Methyl tert-butyl ether	4.6	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.4	Not Detected
Chloroform	1.2	Not Detected	5.6	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Cyclohexane	1.2	Not Detected	4.0	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
2,2,4-Trimethylpentane	1.2	3.4	5.4	16
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Heptane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.2	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.3	Not Detected
1,4-Dioxane	4.6	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.7	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.7	Not Detected
Toluene	1.2	6.0	4.4	23
trans-1,3-Dichloropropene	1.2	Not Detected	5.2	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Tetrachloroethene	1.2	Not Detected	7.8	Not Detected
2-Hexanone	4.6	Not Detected	19	Not Detected



Air Toxics

Client Sample ID: SS-45 (062118)

Lab ID#: 1806478B-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062620	Date of Collection:	6/21/18 9:46:00 AM
Dil. Factor:	2.31	Date of Analysis:	6/26/18 10:39 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	9.8	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	8.9	Not Detected
Chlorobenzene	1.2	Not Detected	5.3	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	5.1	5.0	22
o-Xylene	1.2	1.7	5.0	7.6
Styrene	1.2	Not Detected	4.9	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Cumene	1.2	Not Detected	5.7	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	7.9	Not Detected
Propylbenzene	1.2	Not Detected	5.7	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.7	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: SS-48 (062118)

Lab ID#: 1806478B-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062621	Date of Collection:	6/21/18 10:39:00 AM
Dil. Factor:	2.46	Date of Analysis:	6/26/18 11:07 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.1	Not Detected
Freon 114	1.2	Not Detected	8.6	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
1,3-Butadiene	1.2	Not Detected	2.7	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	4.9	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.9	Not Detected
Ethanol	4.9	77	9.3	140
Freon 113	1.2	Not Detected	9.4	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Acetone	12	13	29	30
2-Propanol	4.9	22	12	55
Carbon Disulfide	4.9	Not Detected	15	Not Detected
3-Chloropropene	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Methyl tert-butyl ether	4.9	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.6	Not Detected
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Cyclohexane	1.2	Not Detected	4.2	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.7	Not Detected
2,2,4-Trimethylpentane	1.2	2.6	5.7	12
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Heptane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	35	6.6	190
1,2-Dichloropropane	1.2	Not Detected	5.7	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.2	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	4.6	4.6	17
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Tetrachloroethene	1.2	1.3	8.3	8.6
2-Hexanone	4.9	Not Detected	20	Not Detected



Air Toxics

Client Sample ID: SS-48 (062118)

Lab ID#: 1806478B-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062621	Date of Collection:	6/21/18 10:39:00 AM
Dil. Factor:	2.46	Date of Analysis:	6/26/18 11:07 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.4	Not Detected
Chlorobenzene	1.2	Not Detected	5.7	Not Detected
Ethyl Benzene	1.2	Not Detected	5.3	Not Detected
m,p-Xylene	1.2	4.1	5.3	18
o-Xylene	1.2	1.4	5.3	6.2
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
Cumene	1.2	Not Detected	6.0	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.4	Not Detected
Propylbenzene	1.2	Not Detected	6.0	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.0	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,2,4-Trichlorobenzene	4.9	Not Detected	36	Not Detected
Hexachlorobutadiene	4.9	Not Detected	52	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: SS-47 (062118)

Lab ID#: 1806478B-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062622	Date of Collection:	6/21/18 11:15:00 AM
Dil. Factor:	2.38	Date of Analysis:	6/26/18 11:35 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Freon 114	1.2	Not Detected	8.3	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	4.8	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.7	Not Detected
Ethanol	4.8	38	9.0	71
Freon 113	1.2	Not Detected	9.1	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Acetone	12	13	28	30
2-Propanol	4.8	4.9	12	12
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.5	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Cyclohexane	1.2	Not Detected	4.1	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.5	Not Detected
2,2,4-Trimethylpentane	1.2	3.4	5.6	16
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Heptane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.5	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.0	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.9	Not Detected
Toluene	1.2	5.6	4.5	21
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	Not Detected	8.1	Not Detected
2-Hexanone	4.8	Not Detected	19	Not Detected



Client Sample ID: SS-47 (062118)

Lab ID#: 1806478B-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062622	Date of Collection:	6/21/18 11:15:00 AM
Dil. Factor:	2.38	Date of Analysis:	6/26/18 11:35 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.1	Not Detected
Chlorobenzene	1.2	Not Detected	5.5	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	4.8	5.2	21
o-Xylene	1.2	1.7	5.2	7.5
Styrene	1.2	Not Detected	5.1	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Cumene	1.2	Not Detected	5.8	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.2	Not Detected
Propylbenzene	1.2	Not Detected	5.8	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.2	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	35	Not Detected
Hexachlorobutadiene	4.8	Not Detected	51	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: SS-46 (062118)

Lab ID#: 1806478B-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062623	Date of Collection:	6/21/18 3:46:00 PM
Dil. Factor:	2.42	Date of Analysis:	6/27/18 12:03 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
1,3-Butadiene	1.2	Not Detected	2.7	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
Ethanol	4.8	Not Detected	9.1	Not Detected
Freon 113	1.2	Not Detected	9.3	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	20	29	46
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.6	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Cyclohexane	1.2	Not Detected	4.2	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
2,2,4-Trimethylpentane	1.2	2.1	5.6	10
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Heptane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	Not Detected	6.5	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	4.9	4.6	18
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	Not Detected	8.2	Not Detected
2-Hexanone	4.8	Not Detected	20	Not Detected



Air Toxics

Client Sample ID: SS-46 (062118)

Lab ID#: 1806478B-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062623	Date of Collection:	6/21/18 3:46:00 PM
Dil. Factor:	2.42	Date of Analysis:	6/27/18 12:03 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	4.8	5.2	21
o-Xylene	1.2	2.0	5.2	8.6
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Cumene	1.2	Not Detected	5.9	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
Propylbenzene	1.2	Not Detected	5.9	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	52	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: SS-50 (062218)

Lab ID#: 1806478B-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062624	Date of Collection:	6/22/18 1:50:00 PM
Dil. Factor:	3.20	Date of Analysis:	6/27/18 12:31 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.6	8.5	7.9	42
Freon 114	1.6	Not Detected	11	Not Detected
Chloromethane	16	Not Detected	33	Not Detected
Vinyl Chloride	1.6	Not Detected	4.1	Not Detected
1,3-Butadiene	1.6	Not Detected	3.5	Not Detected
Bromomethane	16	Not Detected	62	Not Detected
Chloroethane	6.4	Not Detected	17	Not Detected
Freon 11	1.6	Not Detected	9.0	Not Detected
Ethanol	6.4	7.5	12	14
Freon 113	1.6	Not Detected	12	Not Detected
1,1-Dichloroethene	1.6	Not Detected	6.3	Not Detected
Acetone	16	Not Detected	38	Not Detected
2-Propanol	6.4	Not Detected	16	Not Detected
Carbon Disulfide	6.4	Not Detected	20	Not Detected
3-Chloropropene	6.4	Not Detected	20	Not Detected
Methylene Chloride	16	Not Detected	56	Not Detected
Methyl tert-butyl ether	6.4	Not Detected	23	Not Detected
trans-1,2-Dichloroethene	1.6	Not Detected	6.3	Not Detected
Hexane	1.6	Not Detected	5.6	Not Detected
1,1-Dichloroethane	1.6	Not Detected	6.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	6.4	Not Detected	19	Not Detected
cis-1,2-Dichloroethene	1.6	Not Detected	6.3	Not Detected
Tetrahydrofuran	1.6	Not Detected	4.7	Not Detected
Chloroform	1.6	Not Detected	7.8	Not Detected
1,1,1-Trichloroethane	1.6	3.3	8.7	18
Cyclohexane	1.6	Not Detected	5.5	Not Detected
Carbon Tetrachloride	1.6	Not Detected	10	Not Detected
2,2,4-Trimethylpentane	1.6	1.9	7.5	9.0
Benzene	1.6	Not Detected	5.1	Not Detected
1,2-Dichloroethane	1.6	Not Detected	6.5	Not Detected
Heptane	1.6	Not Detected	6.6	Not Detected
Trichloroethene	1.6	480	8.6	2600
1,2-Dichloropropane	1.6	Not Detected	7.4	Not Detected
1,4-Dioxane	6.4	Not Detected	23	Not Detected
Bromodichloromethane	1.6	Not Detected	11	Not Detected
cis-1,3-Dichloropropene	1.6	Not Detected	7.3	Not Detected
4-Methyl-2-pentanone	1.6	Not Detected	6.6	Not Detected
Toluene	1.6	2.5	6.0	9.4
trans-1,3-Dichloropropene	1.6	Not Detected	7.3	Not Detected
1,1,2-Trichloroethane	1.6	Not Detected	8.7	Not Detected
Tetrachloroethene	1.6	Not Detected	11	Not Detected
2-Hexanone	6.4	Not Detected	26	Not Detected



Air Toxics

Client Sample ID: SS-50 (062218)

Lab ID#: 1806478B-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062624	Date of Collection:	6/22/18 1:50:00 PM
Dil. Factor:	3.20	Date of Analysis:	6/27/18 12:31 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.6	Not Detected	14	Not Detected
1,2-Dibromoethane (EDB)	1.6	Not Detected	12	Not Detected
Chlorobenzene	1.6	Not Detected	7.4	Not Detected
Ethyl Benzene	1.6	Not Detected	6.9	Not Detected
m,p-Xylene	1.6	2.6	6.9	11
o-Xylene	1.6	Not Detected	6.9	Not Detected
Styrene	1.6	Not Detected	6.8	Not Detected
Bromoform	1.6	Not Detected	16	Not Detected
Cumene	1.6	Not Detected	7.9	Not Detected
1,1,2,2-Tetrachloroethane	1.6	Not Detected	11	Not Detected
Propylbenzene	1.6	Not Detected	7.9	Not Detected
4-Ethyltoluene	1.6	Not Detected	7.9	Not Detected
1,3,5-Trimethylbenzene	1.6	Not Detected	7.9	Not Detected
1,2,4-Trimethylbenzene	1.6	Not Detected	7.9	Not Detected
1,3-Dichlorobenzene	1.6	Not Detected	9.6	Not Detected
1,4-Dichlorobenzene	1.6	Not Detected	9.6	Not Detected
alpha-Chlorotoluene	1.6	Not Detected	8.3	Not Detected
1,2-Dichlorobenzene	1.6	Not Detected	9.6	Not Detected
1,2,4-Trichlorobenzene	6.4	Not Detected	47	Not Detected
Hexachlorobutadiene	6.4	Not Detected	68	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	94	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1806478B-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062606	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/26/18 01:05 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 1806478B-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062606	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/26/18 01:05 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1806478B-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/26/18 10:58 AM

Compound	%Recovery
Freon 12	102
Freon 114	103
Chloromethane	98
Vinyl Chloride	97
1,3-Butadiene	94
Bromomethane	106
Chloroethane	100
Freon 11	102
Ethanol	93
Freon 113	101
1,1-Dichloroethene	102
Acetone	91
2-Propanol	90
Carbon Disulfide	100
3-Chloropropene	100
Methylene Chloride	98
Methyl tert-butyl ether	97
trans-1,2-Dichloroethene	98
Hexane	92
1,1-Dichloroethane	96
2-Butanone (Methyl Ethyl Ketone)	98
cis-1,2-Dichloroethene	97
Tetrahydrofuran	87
Chloroform	103
1,1,1-Trichloroethane	99
Cyclohexane	97
Carbon Tetrachloride	99
2,2,4-Trimethylpentane	93
Benzene	99
1,2-Dichloroethane	97
Heptane	96
Trichloroethene	101
1,2-Dichloropropane	95
1,4-Dioxane	98
Bromodichloromethane	102
cis-1,3-Dichloropropene	100
4-Methyl-2-pentanone	88
Toluene	99
trans-1,3-Dichloropropene	99
1,1,2-Trichloroethane	101
Tetrachloroethene	100
2-Hexanone	94



Air Toxics

Client Sample ID: CCV

Lab ID#: 1806478B-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/26/18 10:58 AM

Compound	%Recovery
Dibromochloromethane	102
1,2-Dibromoethane (EDB)	101
Chlorobenzene	98
Ethyl Benzene	99
m,p-Xylene	98
o-Xylene	98
Styrene	101
Bromoform	101
Cumene	100
1,1,2,2-Tetrachloroethane	103
Propylbenzene	101
4-Ethyltoluene	101
1,3,5-Trimethylbenzene	101
1,2,4-Trimethylbenzene	101
1,3-Dichlorobenzene	100
1,4-Dichlorobenzene	100
alpha-Chlorotoluene	106
1,2-Dichlorobenzene	100
1,2,4-Trichlorobenzene	86
Hexachlorobutadiene	84

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1806478B-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/26/18 11:45 AM

Compound	%Recovery	Method Limits
Freon 12	101	70-130
Freon 114	101	70-130
Chloromethane	101	70-130
Vinyl Chloride	96	70-130
1,3-Butadiene	92	70-130
Bromomethane	105	70-130
Chloroethane	99	70-130
Freon 11	100	70-130
Ethanol	93	70-130
Freon 113	99	70-130
1,1-Dichloroethene	99	70-130
Acetone	86	70-130
2-Propanol	91	70-130
Carbon Disulfide	98	70-130
3-Chloropropene	99	70-130
Methylene Chloride	93	70-130
Methyl tert-butyl ether	96	70-130
trans-1,2-Dichloroethene	103	70-130
Hexane	90	70-130
1,1-Dichloroethane	91	70-130
2-Butanone (Methyl Ethyl Ketone)	96	70-130
cis-1,2-Dichloroethene	85	70-130
Tetrahydrofuran	86	70-130
Chloroform	98	70-130
1,1,1-Trichloroethane	98	70-130
Cyclohexane	96	70-130
Carbon Tetrachloride	97	70-130
2,2,4-Trimethylpentane	92	70-130
Benzene	97	70-130
1,2-Dichloroethane	95	70-130
Heptane	97	70-130
Trichloroethene	102	70-130
1,2-Dichloropropane	94	70-130
1,4-Dioxane	102	70-130
Bromodichloromethane	102	70-130
cis-1,3-Dichloropropene	105	70-130
4-Methyl-2-pentanone	92	70-130
Toluene	100	70-130
trans-1,3-Dichloropropene	100	70-130
1,1,2-Trichloroethane	102	70-130
Tetrachloroethene	99	70-130
2-Hexanone	99	70-130

Client Sample ID: LCS

Lab ID#: 1806478B-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/26/18 11:45 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	103	70-130
1,2-Dibromoethane (EDB)	100	70-130
Chlorobenzene	98	70-130
Ethyl Benzene	100	70-130
m,p-Xylene	99	70-130
o-Xylene	99	70-130
Styrene	104	70-130
Bromoform	105	70-130
Cumene	100	70-130
1,1,2,2-Tetrachloroethane	103	70-130
Propylbenzene	103	70-130
4-Ethyltoluene	104	70-130
1,3,5-Trimethylbenzene	103	70-130
1,2,4-Trimethylbenzene	103	70-130
1,3-Dichlorobenzene	100	70-130
1,4-Dichlorobenzene	102	70-130
alpha-Chlorotoluene	111	70-130
1,2-Dichlorobenzene	101	70-130
1,2,4-Trichlorobenzene	93	70-130
Hexachlorobutadiene	89	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: LCS D

Lab ID#: 1806478B-20AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062604	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/26/18 12:12 PM

Compound	%Recovery	Method Limits
Freon 12	100	70-130
Freon 114	101	70-130
Chloromethane	101	70-130
Vinyl Chloride	95	70-130
1,3-Butadiene	91	70-130
Bromomethane	106	70-130
Chloroethane	99	70-130
Freon 11	99	70-130
Ethanol	93	70-130
Freon 113	98	70-130
1,1-Dichloroethene	100	70-130
Acetone	90	70-130
2-Propanol	92	70-130
Carbon Disulfide	100	70-130
3-Chloropropene	102	70-130
Methylene Chloride	94	70-130
Methyl tert-butyl ether	95	70-130
trans-1,2-Dichloroethene	106	70-130
Hexane	92	70-130
1,1-Dichloroethane	94	70-130
2-Butanone (Methyl Ethyl Ketone)	98	70-130
cis-1,2-Dichloroethene	89	70-130
Tetrahydrofuran	88	70-130
Chloroform	100	70-130
1,1,1-Trichloroethane	99	70-130
Cyclohexane	97	70-130
Carbon Tetrachloride	97	70-130
2,2,4-Trimethylpentane	92	70-130
Benzene	97	70-130
1,2-Dichloroethane	94	70-130
Heptane	95	70-130
Trichloroethene	103	70-130
1,2-Dichloropropane	92	70-130
1,4-Dioxane	101	70-130
Bromodichloromethane	103	70-130
cis-1,3-Dichloropropene	106	70-130
4-Methyl-2-pentanone	90	70-130
Toluene	98	70-130
trans-1,3-Dichloropropene	100	70-130
1,1,2-Trichloroethane	103	70-130
Tetrachloroethene	99	70-130
2-Hexanone	98	70-130

Client Sample ID: LCSD

Lab ID#: 1806478B-20AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17062604	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/26/18 12:12 PM

Compound	%Recovery	Method Limits
Dibromochloromethane	103	70-130
1,2-Dibromoethane (EDB)	100	70-130
Chlorobenzene	99	70-130
Ethyl Benzene	100	70-130
m,p-Xylene	98	70-130
o-Xylene	99	70-130
Styrene	103	70-130
Bromoform	105	70-130
Cumene	100	70-130
1,1,2,2-Tetrachloroethane	102	70-130
Propylbenzene	102	70-130
4-Ethyltoluene	103	70-130
1,3,5-Trimethylbenzene	102	70-130
1,2,4-Trimethylbenzene	102	70-130
1,3-Dichlorobenzene	100	70-130
1,4-Dichlorobenzene	101	70-130
alpha-Chlorotoluene	111	70-130
1,2-Dichlorobenzene	100	70-130
1,2,4-Trichlorobenzene	93	70-130
Hexachlorobutadiene	90	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	97	70-130



Air TOXICS

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 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager

Don Retzold

Page 3 of 4

Collected by: (Print and Sign)

Ben Colby

Turn Around Time:
 Normal
 Rush
5-day

Lab Use Only
Pressurized by:
Date:
Pressurization Gas:

Company

Analytics

PO # *IN000911.0016*
Project # *none*

Address *Bohn, Manda St, Ste 200, Redding, CA 96001*

Phone *(5317) 231-6500*

Fax *(5317) 231-6814*

Project Name *GS Fall City*

Pressurization Gas:
N₂ He

Lab I.D. Field Sample I.D. (Location)

02A

SS-40 (062018)-A

Can #

1L27495

Date of Collection

6/20/18-6/20/18

Time of Collection

1444-1659

Analyses Requested

Canister Pressure/Vacuum
Initial Final Receipt Final (ps)

02A

SS-40 (062018)-B

1L27789

6/20/18-6/20/18

1215-1229

POB see project list

-245

-1.5

04A

EA-47-F (062018)

6L07722

6/20/18-6/21/18

1207-1510

1207-1510

-30

-4.0

05A

SS-42 (062018)

82009

6/20/18-6/20/18

1631-1646

-30

-8.0

06A

SS-43 (062018)

1L2905

6/20/18-6/20/18

1816-1830

-30

-4.0

07A

SS-44 (062118)

1L2912

6/21/18-6/21/18

0716-0731

-30

-4.5

08A

SS-45 (062118)

1L2883

6/21/18-6/21/18

0729-0946

-30

-3.0

09A

SS-47 (062118)

1L3009

6/21/18-6/21/18

1023-1039

30

-4.5

10A

SS-46 (062118)

1L2987

6/21/18-6/21/18

1532-1546

30

-5.0

Relinquished by: (signature) Date/Time

[Signature] *6/22/18 1430*

Received by: (signature) Date/Time

[Signature] *06/25/18 1010*

Relinquished by: (signature) Date/Time

[Signature] *6/22/18 1430*

Received by: (signature) Date/Time

[Signature] *06/25/18 1010*

Relinquished by: (signature) Date/Time

[Signature] *6/22/18 1430*

Received by: (signature) Date/Time

[Signature] *06/25/18 1010*

Notes: *See "held" above*

Shipper Name *TRIX* Air Bill # *AA* Temp (°C) *AA* Condition *6000* Custody Seals Intact? Yes No None Work Order # *SD6478*



Air Toxics

Sample Transportation Notice

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180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager Don Petzold

Collected by: (Print and Sign) Don Petzold

Company Accedis

Address 150 W. Market St. Ste. 817 Stockton State CA Zip 95204

Phone (517) 231-6800

Fax (517) 231-6514

Project Info:

P.O. # IN 000 911, 0016

Project # None

Project Name GE TEL CITY

Turn Around Time:

Normal

Rush

5-day specific

Lab Use Only
Pressurized by:

Date:

Pressurization Gas:

N₂ He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum		
						Initial	Final	Receipt (psi)
IA-49-F(062118)		6L1682	6/21/18-9:21/18	1408-1234	Tols see project list	-29	-6.8	
IA-49-B(062118)		6L0900	6/21/18-9:21/18	1408-1309		-30	-9.0	
IA-50-A(062118)		6L1313	6/21/18-9:21/18			-30	-7.5	
IA-50-B(062118)		6L0975	6/21/18-9:21/18	1424-1315		-29.5	-7.0	
IA-50-C(062118)		6L1541	6/21/18-9:21/18	1425-1316		-30	-6.5	
IA-50-D(062118)		8020	6/21/18-9:21/18	1243-1300		-30	-1.5	
IA-50-E(062118)		7999	6/21/18-9:21/18	1334-1350		-29	-3.0	

Notes:

See hold above

Relinquished by: (signature) [Signature] Date/Time 6/22/18 1430

Received by: (signature) [Signature] Date/Time 6/22/18 0615/18 10/10

Relinquished by: (signature) _____ Date/Time _____

Received by: (signature) _____ Date/Time _____

Lab Use Only

Shipper Name FIBEX Air Bill # _____ Temp (°C) 44 Condition GOOD Custody Seals Intact? Yes No None Work Order # 1806478

7/10/2018
Mr. Jon Akin
Arcadis U.S., Inc.
150 W Market St, Ste 728

Indianapolis IN 46204

Project Name: GE Tell City
Project #: IN000911.0016
Workorder #: 1807041A

Dear Mr. Jon Akin

The following report includes the data for the above referenced project for sample(s) received on 7/3/2018 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 SIM 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: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott
Project Manager

WORK ORDER #: 1807041A

Work Order Summary

CLIENT:	Mr. Jon Akin Arcadis U.S., Inc. 150 W Market St, Ste 728 Indianapolis, IN 46204	BILL TO:	Accounts Payable Arcadis U.S., Inc. 630 Plaza Drive Suite 600 Highlands Ranch, CO 80129
PHONE:	317-231-6500	P.O. #	IN000911.0016
FAX:	317-231-6514	PROJECT #	IN000911.0016 GE Tell City
DATE RECEIVED:	07/03/2018	CONTACT:	Ausha Scott
DATE COMPLETED:	07/10/2018		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	IA-04 (062818)	Modified TO-15 SIM	6.9 "Hg	4.9 psi
02A	Amb-1 (062818)	Modified TO-15 SIM	8.6 "Hg	5.2 psi
03A	Lab Blank	Modified TO-15 SIM	NA	NA
04A	CCV	Modified TO-15 SIM	NA	NA
05A	LCS	Modified TO-15 SIM	NA	NA
05AA	LCSD	Modified TO-15 SIM	NA	NA

CERTIFIED BY: 

 Technical Director

DATE: 07/10/18

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

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 SIM
Arcadis U.S., Inc.
Workorder# 1807041A

Two 6 Liter Summa Canister (SIM Certified) samples were received on July 03, 2018. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
ICAL %RSD acceptance criteria	$\leq 30\%$ RSD with 2 compounds allowed out to $< 40\%$ RSD	Project specific; default criteria is $\leq 30\%$ RSD with 10% of compounds allowed out to $< 40\%$ RSD
Daily Calibration	$\pm 30\%$ Difference	Project specific; default criteria is $\leq 30\%$ Difference with 10% of compounds allowed out up to $\leq 40\%$.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Dilution was performed on sample IA-04 (062818) due to the presence of high level target species.

Definition of Data Qualifying Flags

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

B - Compound present in laboratory blank greater than reporting limit (background 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

**Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM**

Client Sample ID: IA-04 (062818)

Lab ID#: 1807041A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.25	0.48	1.2	2.3
Chloroform	0.25	0.56	1.2	2.7
1,1,1-Trichloroethane	0.25	0.39	1.4	2.1
Benzene	0.62	5.1	2.0	16
Toluene	0.25	200	0.93	780
Tetrachloroethene	0.25	22	1.7	140
Ethyl Benzene	0.25	12	1.1	52
m,p-Xylene	0.50	47	2.2	200
o-Xylene	0.25	17	1.1	75

Client Sample ID: Amb-1 (062818)

Lab ID#: 1807041A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.038	0.43	0.19	2.1
Carbon Tetrachloride	0.038	0.072	0.24	0.46
Toluene	0.038	0.15	0.14	0.58



Client Sample ID: IA-04 (062818)

Lab ID#: 1807041A-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v070508sim	Date of Collection:	6/29/18 8:00:00 AM
Dil. Factor:	12.4	Date of Analysis:	7/5/18 04:07 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.25	0.48	1.2	2.3
Freon 114	0.25	Not Detected	1.7	Not Detected
Chloromethane	6.2	Not Detected	13	Not Detected
Vinyl Chloride	0.12	Not Detected	0.32	Not Detected
Chloroethane	0.62	Not Detected	1.6	Not Detected
1,1-Dichloroethene	0.12	Not Detected	0.49	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.5	Not Detected
1,1-Dichloroethane	0.25	Not Detected	1.0	Not Detected
cis-1,2-Dichloroethene	0.25	Not Detected	0.98	Not Detected
Chloroform	0.25	0.56	1.2	2.7
1,1,1-Trichloroethane	0.25	0.39	1.4	2.1
Carbon Tetrachloride	0.25	Not Detected	1.6	Not Detected
Benzene	0.62	5.1	2.0	16
1,2-Dichloroethane	0.25	Not Detected	1.0	Not Detected
Trichloroethene	0.25	Not Detected	1.3	Not Detected
Toluene	0.25	200	0.93	780
1,1,2-Trichloroethane	0.25	Not Detected	1.4	Not Detected
Tetrachloroethene	0.25	22	1.7	140
1,2-Dibromoethane (EDB)	0.25	Not Detected	1.9	Not Detected
Ethyl Benzene	0.25	12	1.1	52
m,p-Xylene	0.50	47	2.2	200
o-Xylene	0.25	17	1.1	75
1,1,2,2-Tetrachloroethane	0.25	Not Detected	1.7	Not Detected
1,4-Dichlorobenzene	0.25	Not Detected	1.5	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: Amb-1 (062818)

Lab ID#: 1807041A-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v070507sim	Date of Collection: 6/29/18 8:07:00 AM
Dil. Factor:	1.90	Date of Analysis: 7/5/18 03:12 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.038	0.43	0.19	2.1
Freon 114	0.038	Not Detected	0.26	Not Detected
Chloromethane	0.95	Not Detected	2.0	Not Detected
Vinyl Chloride	0.019	Not Detected	0.048	Not Detected
Chloroethane	0.095	Not Detected	0.25	Not Detected
1,1-Dichloroethene	0.019	Not Detected	0.075	Not Detected
trans-1,2-Dichloroethene	0.19	Not Detected	0.75	Not Detected
Methyl tert-butyl ether	0.19	Not Detected	0.68	Not Detected
1,1-Dichloroethane	0.038	Not Detected	0.15	Not Detected
cis-1,2-Dichloroethene	0.038	Not Detected	0.15	Not Detected
Chloroform	0.038	Not Detected	0.18	Not Detected
1,1,1-Trichloroethane	0.038	Not Detected	0.21	Not Detected
Carbon Tetrachloride	0.038	0.072	0.24	0.46
Benzene	0.095	Not Detected	0.30	Not Detected
1,2-Dichloroethane	0.038	Not Detected	0.15	Not Detected
Trichloroethene	0.038	Not Detected	0.20	Not Detected
Toluene	0.038	0.15	0.14	0.58
1,1,2-Trichloroethane	0.038	Not Detected	0.21	Not Detected
Tetrachloroethene	0.038	Not Detected	0.26	Not Detected
1,2-Dibromoethane (EDB)	0.038	Not Detected	0.29	Not Detected
Ethyl Benzene	0.038	Not Detected	0.16	Not Detected
m,p-Xylene	0.076	Not Detected	0.33	Not Detected
o-Xylene	0.038	Not Detected	0.16	Not Detected
1,1,2,2-Tetrachloroethane	0.038	Not Detected	0.26	Not Detected
1,4-Dichlorobenzene	0.038	Not Detected	0.23	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: Lab Blank

Lab ID#: 1807041A-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v070506sim	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/5/18 01:04 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.020	Not Detected	0.099	Not Detected
Freon 114	0.020	Not Detected	0.14	Not Detected
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Chloroethane	0.050	Not Detected	0.13	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
1,1-Dichloroethane	0.020	Not Detected	0.081	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
1,1,1-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Carbon Tetrachloride	0.020	Not Detected	0.12	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected
Toluene	0.020	Not Detected	0.075	Not Detected
1,1,2-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
1,2-Dibromoethane (EDB)	0.020	Not Detected	0.15	Not Detected
Ethyl Benzene	0.020	Not Detected	0.087	Not Detected
m,p-Xylene	0.040	Not Detected	0.17	Not Detected
o-Xylene	0.020	Not Detected	0.087	Not Detected
1,1,2,2-Tetrachloroethane	0.020	Not Detected	0.14	Not Detected
1,4-Dichlorobenzene	0.020	Not Detected	0.12	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: CCV

Lab ID#: 1807041A-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v070502sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/5/18 07:25 AM

Compound	%Recovery
Freon 12	89
Freon 114	94
Chloromethane	86
Vinyl Chloride	85
Chloroethane	98
1,1-Dichloroethene	87
trans-1,2-Dichloroethene	94
Methyl tert-butyl ether	92
1,1-Dichloroethane	93
cis-1,2-Dichloroethene	91
Chloroform	94
1,1,1-Trichloroethane	91
Carbon Tetrachloride	100
Benzene	87
1,2-Dichloroethane	94
Trichloroethene	95
Toluene	90
1,1,2-Trichloroethane	93
Tetrachloroethene	97
1,2-Dibromoethane (EDB)	95
Ethyl Benzene	89
m,p-Xylene	87
o-Xylene	86
1,1,2,2-Tetrachloroethane	91
1,4-Dichlorobenzene	85

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	91	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1807041A-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v070503sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/5/18 09:14 AM

Compound	%Recovery	Method Limits
Freon 12	94	70-130
Freon 114	98	70-130
Chloromethane	92	70-130
Vinyl Chloride	92	70-130
Chloroethane	104	70-130
1,1-Dichloroethene	88	70-130
trans-1,2-Dichloroethene	105	70-130
Methyl tert-butyl ether	96	70-130
1,1-Dichloroethane	96	70-130
cis-1,2-Dichloroethene	87	70-130
Chloroform	97	70-130
1,1,1-Trichloroethane	95	70-130
Carbon Tetrachloride	112	60-140
Benzene	89	70-130
1,2-Dichloroethane	94	70-130
Trichloroethene	98	70-130
Toluene	93	70-130
1,1,2-Trichloroethane	95	70-130
Tetrachloroethene	100	70-130
1,2-Dibromoethane (EDB)	97	70-130
Ethyl Benzene	95	70-130
m,p-Xylene	92	70-130
o-Xylene	92	70-130
1,1,2,2-Tetrachloroethane	90	70-130
1,4-Dichlorobenzene	88	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	93	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1807041A-05AA

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	v070504sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/5/18 10:17 AM

Compound	%Recovery	Method Limits
Freon 12	93	70-130
Freon 114	99	70-130
Chloromethane	91	70-130
Vinyl Chloride	92	70-130
Chloroethane	105	70-130
1,1-Dichloroethene	89	70-130
trans-1,2-Dichloroethene	106	70-130
Methyl tert-butyl ether	96	70-130
1,1-Dichloroethane	97	70-130
cis-1,2-Dichloroethene	88	70-130
Chloroform	98	70-130
1,1,1-Trichloroethane	96	70-130
Carbon Tetrachloride	112	60-140
Benzene	90	70-130
1,2-Dichloroethane	96	70-130
Trichloroethene	100	70-130
Toluene	93	70-130
1,1,2-Trichloroethane	99	70-130
Tetrachloroethene	102	70-130
1,2-Dibromoethane (EDB)	101	70-130
Ethyl Benzene	94	70-130
m,p-Xylene	91	70-130
o-Xylene	91	70-130
1,1,2,2-Tetrachloroethane	90	70-130
1,4-Dichlorobenzene	87	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	92	70-130



Air Toxics

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 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager Ben Petzold

Collected by: (Print and Sign) Ben Petzold

Company Acadric Email benpetzold@acadric.com

Address 1450 W. Market St. Ste 100 Indio, CA 92201

Phone (317) 231-6500 Fax (317) 231-6514

Project Info:

P.O. # EMERGENCY 2016

Project # 5000

Project Name GG TEL 11 City

Turn Around Time:

Normal

Rush

5-day specify

Lab Use Only Pressurized by:

Date:

Pressurization Gas: N₂

He

Canister Pressure/Vacuum

Initial Final Receipt Final (ps)

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Initial	Final	Receipt	Final (ps)
01A	TA-01 (062818)	GL1580	6/28/18-6:40p	0845-0800	TB15 see project 134	-27	-8.0		
02A	Amb-1 (062818)	GL0980	6/28/18-6:40p	0829-0802		-27	-9.5		
03A	SSP-04 (062918)	LC30614	6/29/18-6:40p	0828-0838		-29	-5.0		
Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>6/14/18 0900</u> Received by: (signature) <u>ALVIN CAR</u> Date/Time <u>07/03/18 0955</u> Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>6/14/18 0900</u> Received by: (signature) <u>[Signature]</u> Date/Time <u>6/14/18 0900</u>									

Notes:

Lab Use Only Shipper Name Fed Ex Air Bill # NA Temp (°C) NA Condition Good Quietly Seals Intact? Yes No None Work Order # 1807041

JTW
07/05/18

7/10/2018
Mr. Jon Akin
Arcadis U.S., Inc.
150 W Market St, Ste 728

Indianapolis IN 46204

Project Name: GE Tell City
Project #: IN000911.0016
Workorder #: 1807041B

Dear Mr. Jon Akin

The following report includes the data for the above referenced project for sample(s) received on 7/3/2018 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 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: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott
Project Manager

WORK ORDER #: 1807041B

Work Order Summary

CLIENT:	Mr. Jon Akin Arcadis U.S., Inc. 150 W Market St, Ste 728 Indianapolis, IN 46204	BILL TO:	Accounts Payable Arcadis U.S., Inc. 630 Plaza Drive Suite 600 Highlands Ranch, CO 80129
PHONE:	317-231-6500	P.O. #	IN000911.0016
FAX:	317-231-6514	PROJECT #	IN000911.0016 GE Tell City
DATE RECEIVED:	07/03/2018	CONTACT:	Ausha Scott
DATE COMPLETED:	07/09/2018		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
03A	SSP-04 (062918)	TO-15	6.5 "Hg	15 psi
04A	Lab Blank	TO-15	NA	NA
05A	CCV	TO-15	NA	NA
06A	LCS	TO-15	NA	NA
06AA	LCSD	TO-15	NA	NA

CERTIFIED BY: 
 Technical Director

DATE: 07/10/18

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
EPA Method TO-15
Arcadis U.S., Inc.
Workorder# 1807041B

One 1 Liter Summa Canister sample was received on July 03, 2018. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

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

B - Compound present in laboratory blank greater than reporting limit (background 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.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

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

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SSP-04 (062918)

Lab ID#: 1807041B-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	13	13 J	31	30 J
2,2,4-Trimethylpentane	1.3	5.3	6.0	25
Toluene	1.3	4.8	4.9	18
Tetrachloroethene	1.3	11	8.8	76
m,p-Xylene	1.3	2.9	5.6	12



Air Toxics

Client Sample ID: SSP-04 (062918)

Lab ID#: 1807041B-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3070610	Date of Collection:	6/29/18 8:38:00 AM
Dil. Factor:	2.58	Date of Analysis:	7/6/18 04:09 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	Not Detected	6.4	Not Detected
Freon 114	1.3	Not Detected	9.0	Not Detected
Chloromethane	13	Not Detected	27	Not Detected
Vinyl Chloride	1.3	Not Detected	3.3	Not Detected
1,3-Butadiene	1.3	Not Detected	2.8	Not Detected
Bromomethane	13	Not Detected	50	Not Detected
Chloroethane	5.2	Not Detected	14	Not Detected
Freon 11	1.3	Not Detected	7.2	Not Detected
Ethanol	5.2	Not Detected	9.7	Not Detected
Freon 113	1.3	Not Detected	9.9	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Acetone	13	13 J	31	30 J
2-Propanol	5.2	Not Detected	13	Not Detected
Carbon Disulfide	5.2	Not Detected	16	Not Detected
3-Chloropropene	5.2	Not Detected	16	Not Detected
Methylene Chloride	13	Not Detected	45	Not Detected
Methyl tert-butyl ether	5.2	Not Detected	19	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Hexane	1.3	Not Detected	4.5	Not Detected
1,1-Dichloroethane	1.3	Not Detected	5.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.2	Not Detected	15	Not Detected
cis-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Tetrahydrofuran	1.3	Not Detected	3.8	Not Detected
Chloroform	1.3	Not Detected	6.3	Not Detected
1,1,1-Trichloroethane	1.3	Not Detected	7.0	Not Detected
Cyclohexane	1.3	Not Detected	4.4	Not Detected
Carbon Tetrachloride	1.3	Not Detected	8.1	Not Detected
2,2,4-Trimethylpentane	1.3	5.3	6.0	25
Benzene	1.3	Not Detected	4.1	Not Detected
1,2-Dichloroethane	1.3	Not Detected	5.2	Not Detected
Heptane	1.3	Not Detected	5.3	Not Detected
Trichloroethene	1.3	Not Detected	6.9	Not Detected
1,2-Dichloropropane	1.3	Not Detected	6.0	Not Detected
1,4-Dioxane	5.2	Not Detected	18	Not Detected
Bromodichloromethane	1.3	Not Detected	8.6	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
4-Methyl-2-pentanone	1.3	Not Detected	5.3	Not Detected
Toluene	1.3	4.8	4.9	18
trans-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	7.0	Not Detected
Tetrachloroethene	1.3	11	8.8	76
2-Hexanone	5.2	Not Detected	21	Not Detected



Client Sample ID: SSP-04 (062918)

Lab ID#: 1807041B-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3070610	Date of Collection:	6/29/18 8:38:00 AM
Dil. Factor:	2.58	Date of Analysis:	7/6/18 04:09 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	9.9	Not Detected
Chlorobenzene	1.3	Not Detected	5.9	Not Detected
Ethyl Benzene	1.3	Not Detected	5.6	Not Detected
m,p-Xylene	1.3	2.9	5.6	12
o-Xylene	1.3	Not Detected	5.6	Not Detected
Styrene	1.3	Not Detected	5.5	Not Detected
Bromoform	1.3	Not Detected	13	Not Detected
Cumene	1.3	Not Detected	6.3	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	8.8	Not Detected
Propylbenzene	1.3	Not Detected	6.3	Not Detected
4-Ethyltoluene	1.3	Not Detected	6.3	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.3	Not Detected
1,2,4-Trimethylbenzene	1.3	Not Detected	6.3	Not Detected
1,3-Dichlorobenzene	1.3	Not Detected	7.8	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	7.8	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	6.7	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	7.8	Not Detected
1,2,4-Trichlorobenzene	5.2	Not Detected	38	Not Detected
Hexachlorobutadiene	5.2	Not Detected	55	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1807041B-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3070605	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/6/18 12:31 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected



Client Sample ID: Lab Blank

Lab ID#: 1807041B-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3070605	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/6/18 12:31 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1807041B-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3070602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/6/18 10:54 AM

Compound	%Recovery
Freon 12	95
Freon 114	95
Chloromethane	87
Vinyl Chloride	86
1,3-Butadiene	84
Bromomethane	91
Chloroethane	83
Freon 11	98
Ethanol	87
Freon 113	93
1,1-Dichloroethene	84
Acetone	92
2-Propanol	89
Carbon Disulfide	82
3-Chloropropene	85
Methylene Chloride	96
Methyl tert-butyl ether	84
trans-1,2-Dichloroethene	92
Hexane	90
1,1-Dichloroethane	93
2-Butanone (Methyl Ethyl Ketone)	91
cis-1,2-Dichloroethene	91
Tetrahydrofuran	99
Chloroform	93
1,1,1-Trichloroethane	90
Cyclohexane	86
Carbon Tetrachloride	98
2,2,4-Trimethylpentane	94
Benzene	94
1,2-Dichloroethane	97
Heptane	85
Trichloroethene	93
1,2-Dichloropropane	96
1,4-Dioxane	90
Bromodichloromethane	95
cis-1,3-Dichloropropene	93
4-Methyl-2-pentanone	90
Toluene	93
trans-1,3-Dichloropropene	90
1,1,2-Trichloroethane	94
Tetrachloroethene	98
2-Hexanone	89



Air Toxics

Client Sample ID: CCV

Lab ID#: 1807041B-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3070602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/6/18 10:54 AM

Compound	%Recovery
Dibromochloromethane	97
1,2-Dibromoethane (EDB)	95
Chlorobenzene	93
Ethyl Benzene	92
m,p-Xylene	92
o-Xylene	90
Styrene	88
Bromoform	97
Cumene	90
1,1,2,2-Tetrachloroethane	92
Propylbenzene	92
4-Ethyltoluene	90
1,3,5-Trimethylbenzene	94
1,2,4-Trimethylbenzene	89
1,3-Dichlorobenzene	98
1,4-Dichlorobenzene	98
alpha-Chlorotoluene	90
1,2-Dichlorobenzene	98
1,2,4-Trichlorobenzene	96
Hexachlorobutadiene	99

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1807041B-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3070603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/6/18 11:19 AM

Compound	%Recovery	Method Limits
Freon 12	90	70-130
Freon 114	92	70-130
Chloromethane	87	70-130
Vinyl Chloride	85	70-130
1,3-Butadiene	82	70-130
Bromomethane	90	70-130
Chloroethane	84	70-130
Freon 11	94	70-130
Ethanol	81	70-130
Freon 113	90	70-130
1,1-Dichloroethene	83	70-130
Acetone	84	70-130
2-Propanol	87	70-130
Carbon Disulfide	80	70-130
3-Chloropropene	83	70-130
Methylene Chloride	95	70-130
Methyl tert-butyl ether	81	70-130
trans-1,2-Dichloroethene	97	70-130
Hexane	88	70-130
1,1-Dichloroethane	89	70-130
2-Butanone (Methyl Ethyl Ketone)	89	70-130
cis-1,2-Dichloroethene	82	70-130
Tetrahydrofuran	95	70-130
Chloroform	90	70-130
1,1,1-Trichloroethane	89	70-130
Cyclohexane	86	70-130
Carbon Tetrachloride	96	70-130
2,2,4-Trimethylpentane	92	70-130
Benzene	90	70-130
1,2-Dichloroethane	92	70-130
Heptane	83	70-130
Trichloroethene	92	70-130
1,2-Dichloropropane	94	70-130
1,4-Dioxane	84	70-130
Bromodichloromethane	94	70-130
cis-1,3-Dichloropropene	97	70-130
4-Methyl-2-pentanone	91	70-130
Toluene	91	70-130
trans-1,3-Dichloropropene	90	70-130
1,1,2-Trichloroethane	92	70-130
Tetrachloroethene	96	70-130
2-Hexanone	90	70-130

Client Sample ID: LCS

Lab ID#: 1807041B-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3070603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/6/18 11:19 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	98	70-130
1,2-Dibromoethane (EDB)	94	70-130
Chlorobenzene	94	70-130
Ethyl Benzene	94	70-130
m,p-Xylene	93	70-130
o-Xylene	92	70-130
Styrene	94	70-130
Bromoform	103	70-130
Cumene	93	70-130
1,1,2,2-Tetrachloroethane	96	70-130
Propylbenzene	95	70-130
4-Ethyltoluene	95	70-130
1,3,5-Trimethylbenzene	96	70-130
1,2,4-Trimethylbenzene	92	70-130
1,3-Dichlorobenzene	100	70-130
1,4-Dichlorobenzene	101	70-130
alpha-Chlorotoluene	103	70-130
1,2-Dichlorobenzene	100	70-130
1,2,4-Trichlorobenzene	96	70-130
Hexachlorobutadiene	102	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1807041B-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3070604	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/6/18 11:44 AM

Compound	%Recovery	Method Limits
Freon 12	90	70-130
Freon 114	92	70-130
Chloromethane	87	70-130
Vinyl Chloride	85	70-130
1,3-Butadiene	81	70-130
Bromomethane	90	70-130
Chloroethane	85	70-130
Freon 11	94	70-130
Ethanol	84	70-130
Freon 113	90	70-130
1,1-Dichloroethene	83	70-130
Acetone	84	70-130
2-Propanol	87	70-130
Carbon Disulfide	80	70-130
3-Chloropropene	85	70-130
Methylene Chloride	94	70-130
Methyl tert-butyl ether	82	70-130
trans-1,2-Dichloroethene	98	70-130
Hexane	89	70-130
1,1-Dichloroethane	89	70-130
2-Butanone (Methyl Ethyl Ketone)	91	70-130
cis-1,2-Dichloroethene	83	70-130
Tetrahydrofuran	95	70-130
Chloroform	92	70-130
1,1,1-Trichloroethane	91	70-130
Cyclohexane	86	70-130
Carbon Tetrachloride	97	70-130
2,2,4-Trimethylpentane	93	70-130
Benzene	91	70-130
1,2-Dichloroethane	94	70-130
Heptane	85	70-130
Trichloroethene	92	70-130
1,2-Dichloropropane	95	70-130
1,4-Dioxane	87	70-130
Bromodichloromethane	96	70-130
cis-1,3-Dichloropropene	100	70-130
4-Methyl-2-pentanone	90	70-130
Toluene	92	70-130
trans-1,3-Dichloropropene	90	70-130
1,1,2-Trichloroethane	93	70-130
Tetrachloroethene	96	70-130
2-Hexanone	92	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1807041B-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3070604	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/6/18 11:44 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	98	70-130
1,2-Dibromoethane (EDB)	95	70-130
Chlorobenzene	95	70-130
Ethyl Benzene	94	70-130
m,p-Xylene	93	70-130
o-Xylene	94	70-130
Styrene	93	70-130
Bromoform	104	70-130
Cumene	94	70-130
1,1,2,2-Tetrachloroethane	96	70-130
Propylbenzene	97	70-130
4-Ethyltoluene	99	70-130
1,3,5-Trimethylbenzene	98	70-130
1,2,4-Trimethylbenzene	95	70-130
1,3-Dichlorobenzene	103	70-130
1,4-Dichlorobenzene	104	70-130
alpha-Chlorotoluene	104	70-130
1,2-Dichlorobenzene	103	70-130
1,2,4-Trichlorobenzene	101	70-130
Hexachlorobutadiene	107	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

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 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager

Sam Petzold

Collected by: (Print and Sign)

Sam Petzold

Company

ArCADIS

Email *Sam.Petzold@arcadis.com*

Address

*150 W. Market St. Ste 200
Sedona, AZ 86304*

Phone

(317) 231-6500

Fax *(317) 231-6514*

Project Info:

PO. # *EVERYWAY 2016*

Project # *5100*

Project Name *GG TEL City*

Turn Around Time:

Normal

Rush

5-day
specify

Lab Use Only

Pressurized by:

Date:

Pressurization Gas:

N₂ He

Lab I.D. Field Sample I.D. (Location)

01A IA-01 (062818)

02A Amb-1 (062818)

03A SR-04 (062918)

Can #

GL1580

GL0780

LL3064

Date of Collection

6/28/18-6/28/18

6/28/18-6/29/18

6/29/18-6/29/18

Analyses Requested

0843-0800

0829-0844

0828-0838

Canister Pressure/Vacuum

Initial Final Receipt Final (psf)

-27 -80

-27 -9.5

-29 -5.0

Relinquished by: (signature) Date/Time

[Signature] *6/19/18 0900*

Received by: (signature) Date/Time

[Signature] *6/22/18 0955*

Notes:

Relinquished by: (signature) Date/Time

[Signature] *6/19/18 0900*

Received by: (signature) Date/Time

[Signature] *6/22/18 0955*

Relinquished by: (signature) Date/Time

[Signature] *6/19/18 0900*

Received by: (signature) Date/Time

[Signature] *6/22/18 0955*

Lab Use Only Shipper Name

Air Bill #

Temp (°C)

Condition

Custody Seals Intact?

Work Order #

FedEx

NA

Good

Yes No None

1307041

7/6/2018

Mr. Jon Akin
Arcadis U.S., Inc.
150 W Market St, Ste 728

Indianapolis IN 46204

Project Name: GE Tell City
Project #: IN000911.0016
Workorder #: 1806478C

Dear Mr. Jon Akin

The following report includes the data for the above referenced project for sample(s) received on 6/25/2018 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 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: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott
Project Manager

WORK ORDER #: 1806478C

Work Order Summary

CLIENT:	Mr. Jon Akin Arcadis U.S., Inc. 150 W Market St, Ste 728 Indianapolis, IN 46204	BILL TO:	Accounts Payable Arcadis U.S., Inc. 630 Plaza Drive Suite 600 Highlands Ranch, CO 80129
PHONE:	317-231-6500	P.O. #	IN000911.0016
FAX:	317-231-6514	PROJECT #	IN000911.0016 GE Tell City
DATE RECEIVED:	06/25/2018	CONTACT:	Ausha Scott
DATE COMPLETED:	07/06/2018		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SS-40 (062018)-A	TO-15	1.2 "Hg	14.9 psi
16A	SS-49 (062218)	TO-15	2.6 "Hg	15.1 psi
17A	Lab Blank	TO-15	NA	NA
18A	CCV	TO-15	NA	NA
19A	LCS	TO-15	NA	NA
19AA	LCSD	TO-15	NA	NA

CERTIFIED BY: 

 Technical Director

DATE: 07/06/18

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

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
Arcadis U.S., Inc.
Workorder# 1806478C

Two 1 Liter Summa Canister samples were received on June 25, 2018. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

Samples SS-40 (062018)-A and SS-49 (062218) were placed on hold per the client's request.

Samples SS-40 (062018)-A and SS-49 (062218) were removed from "Hold" and placed on "Active" status per client request on 07/03/2018.

Analytical Notes

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

Definition of Data Qualifying Flags

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

B - Compound present in laboratory blank greater than reporting limit (background 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.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

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

**Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN**

Client Sample ID: SS-40 (062018)-A

Lab ID#: 1806478C-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	4.2	36	7.9	67
Acetone	10	17	25	40
2,2,4-Trimethylpentane	1.0	3.0	4.9	14
Trichloroethene	1.0	8.4	5.6	45
Toluene	1.0	7.6	4.0	29
m,p-Xylene	1.0	5.0	4.6	22
o-Xylene	1.0	1.7	4.6	7.5

Client Sample ID: SS-49 (062218)

Lab ID#: 1806478C-16A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	4.4	10	8.4	20
Acetone	11	17	26	40
1,1,1-Trichloroethane	1.1	1.4	6.0	7.4
2,2,4-Trimethylpentane	1.1	1.6	5.2	7.7
Trichloroethene	1.1	2.8	6.0	15
Toluene	1.1	5.0	4.2	19
m,p-Xylene	1.1	2.6	4.8	11
o-Xylene	1.1	1.2	4.8	5.2



Air Toxics

Client Sample ID: SS-40 (062018)-A

Lab ID#: 1806478C-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p070307	Date of Collection:	6/20/18 11:59:00 AM
Dil. Factor:	2.10	Date of Analysis:	7/3/18 04:05 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	5.2	Not Detected
Freon 114	1.0	Not Detected	7.3	Not Detected
Chloromethane	10	Not Detected	22	Not Detected
Vinyl Chloride	1.0	Not Detected	2.7	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
Bromomethane	10	Not Detected	41	Not Detected
Chloroethane	4.2	Not Detected	11	Not Detected
Freon 11	1.0	Not Detected	5.9	Not Detected
Ethanol	4.2	36	7.9	67
Freon 113	1.0	Not Detected	8.0	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.2	Not Detected
Acetone	10	17	25	40
2-Propanol	4.2	Not Detected	10	Not Detected
Carbon Disulfide	4.2	Not Detected	13	Not Detected
3-Chloropropene	4.2	Not Detected	13	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Methyl tert-butyl ether	4.2	Not Detected	15	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected
Hexane	1.0	Not Detected	3.7	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.2	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected
Tetrahydrofuran	1.0	Not Detected	3.1	Not Detected
Chloroform	1.0	Not Detected	5.1	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.7	Not Detected
Cyclohexane	1.0	Not Detected	3.6	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.6	Not Detected
2,2,4-Trimethylpentane	1.0	3.0	4.9	14
Benzene	1.0	Not Detected	3.4	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
Heptane	1.0	Not Detected	4.3	Not Detected
Trichloroethene	1.0	8.4	5.6	45
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,4-Dioxane	4.2	Not Detected	15	Not Detected
Bromodichloromethane	1.0	Not Detected	7.0	Not Detected
cis-1,3-Dichloropropene	1.0	Not Detected	4.8	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.3	Not Detected
Toluene	1.0	7.6	4.0	29
trans-1,3-Dichloropropene	1.0	Not Detected	4.8	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.7	Not Detected
Tetrachloroethene	1.0	Not Detected	7.1	Not Detected
2-Hexanone	4.2	Not Detected	17	Not Detected



Air Toxics

Client Sample ID: SS-40 (062018)-A

Lab ID#: 1806478C-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p070307	Date of Collection:	6/20/18 11:59:00 AM
Dil. Factor:	2.10	Date of Analysis:	7/3/18 04:05 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.0	Not Detected	8.9	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	8.1	Not Detected
Chlorobenzene	1.0	Not Detected	4.8	Not Detected
Ethyl Benzene	1.0	Not Detected	4.6	Not Detected
m,p-Xylene	1.0	5.0	4.6	22
o-Xylene	1.0	1.7	4.6	7.5
Styrene	1.0	Not Detected	4.5	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Cumene	1.0	Not Detected	5.2	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.2	Not Detected
Propylbenzene	1.0	Not Detected	5.2	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.2	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.2	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.2	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.4	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,2,4-Trichlorobenzene	4.2	Not Detected	31	Not Detected
Hexachlorobutadiene	4.2	Not Detected	45	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	88	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: SS-49 (062218)

Lab ID#: 1806478C-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p070308	Date of Collection:	6/22/18 1:00:00 PM
Dil. Factor:	2.22	Date of Analysis:	7/3/18 04:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.5	Not Detected
Freon 114	1.1	Not Detected	7.8	Not Detected
Chloromethane	11	Not Detected	23	Not Detected
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected
1,3-Butadiene	1.1	Not Detected	2.4	Not Detected
Bromomethane	11	Not Detected	43	Not Detected
Chloroethane	4.4	Not Detected	12	Not Detected
Freon 11	1.1	Not Detected	6.2	Not Detected
Ethanol	4.4	10	8.4	20
Freon 113	1.1	Not Detected	8.5	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Acetone	11	17	26	40
2-Propanol	4.4	Not Detected	11	Not Detected
Carbon Disulfide	4.4	Not Detected	14	Not Detected
3-Chloropropene	4.4	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	38	Not Detected
Methyl tert-butyl ether	4.4	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Hexane	1.1	Not Detected	3.9	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.4	Not Detected	13	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Tetrahydrofuran	1.1	Not Detected	3.3	Not Detected
Chloroform	1.1	Not Detected	5.4	Not Detected
1,1,1-Trichloroethane	1.1	1.4	6.0	7.4
Cyclohexane	1.1	Not Detected	3.8	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.0	Not Detected
2,2,4-Trimethylpentane	1.1	1.6	5.2	7.7
Benzene	1.1	Not Detected	3.5	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.5	Not Detected
Heptane	1.1	Not Detected	4.5	Not Detected
Trichloroethene	1.1	2.8	6.0	15
1,2-Dichloropropane	1.1	Not Detected	5.1	Not Detected
1,4-Dioxane	4.4	Not Detected	16	Not Detected
Bromodichloromethane	1.1	Not Detected	7.4	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.0	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.5	Not Detected
Toluene	1.1	5.0	4.2	19
trans-1,3-Dichloropropene	1.1	Not Detected	5.0	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.0	Not Detected
Tetrachloroethene	1.1	Not Detected	7.5	Not Detected
2-Hexanone	4.4	Not Detected	18	Not Detected



Client Sample ID: SS-49 (062218)

Lab ID#: 1806478C-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p070308	Date of Collection:	6/22/18 1:00:00 PM
Dil. Factor:	2.22	Date of Analysis:	7/3/18 04:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.1	Not Detected	9.4	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.5	Not Detected
Chlorobenzene	1.1	Not Detected	5.1	Not Detected
Ethyl Benzene	1.1	Not Detected	4.8	Not Detected
m,p-Xylene	1.1	2.6	4.8	11
o-Xylene	1.1	1.2	4.8	5.2
Styrene	1.1	Not Detected	4.7	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected
Cumene	1.1	Not Detected	5.4	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.6	Not Detected
Propylbenzene	1.1	Not Detected	5.4	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.4	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.4	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.4	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.7	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
1,2,4-Trichlorobenzene	4.4	Not Detected	33	Not Detected
Hexachlorobutadiene	4.4	Not Detected	47	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1806478C-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p070306	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/3/18 02:36 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected



Client Sample ID: Lab Blank

Lab ID#: 1806478C-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p070306	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/3/18 02:36 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	93	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1806478C-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p070302	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/3/18 10:47 AM

Compound	%Recovery
Freon 12	104
Freon 114	108
Chloromethane	84
Vinyl Chloride	111
1,3-Butadiene	94
Bromomethane	104
Chloroethane	92
Freon 11	102
Ethanol	72
Freon 113	104
1,1-Dichloroethene	98
Acetone	91
2-Propanol	87
Carbon Disulfide	93
3-Chloropropene	93
Methylene Chloride	91
Methyl tert-butyl ether	100
trans-1,2-Dichloroethene	105
Hexane	96
1,1-Dichloroethane	98
2-Butanone (Methyl Ethyl Ketone)	99
cis-1,2-Dichloroethene	102
Tetrahydrofuran	96
Chloroform	103
1,1,1-Trichloroethane	102
Cyclohexane	106
Carbon Tetrachloride	110
2,2,4-Trimethylpentane	96
Benzene	112
1,2-Dichloroethane	105
Heptane	118
Trichloroethene	105
1,2-Dichloropropane	101
1,4-Dioxane	111
Bromodichloromethane	107
cis-1,3-Dichloropropene	104
4-Methyl-2-pentanone	107
Toluene	112
trans-1,3-Dichloropropene	109
1,1,2-Trichloroethane	108
Tetrachloroethene	114
2-Hexanone	115

Client Sample ID: CCV

Lab ID#: 1806478C-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p070302	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/3/18 10:47 AM

Compound	%Recovery
Dibromochloromethane	112
1,2-Dibromoethane (EDB)	112
Chlorobenzene	108
Ethyl Benzene	120
m,p-Xylene	124
o-Xylene	121
Styrene	128
Bromoform	112
Cumene	123
1,1,2,2-Tetrachloroethane	102
Propylbenzene	117
4-Ethyltoluene	132 Q
1,3,5-Trimethylbenzene	127
1,2,4-Trimethylbenzene	124
1,3-Dichlorobenzene	116
1,4-Dichlorobenzene	119
alpha-Chlorotoluene	114
1,2-Dichlorobenzene	115
1,2,4-Trichlorobenzene	109
Hexachlorobutadiene	112

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	107	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	109	70-130

Client Sample ID: LCS

Lab ID#: 1806478C-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p070303	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/3/18 11:14 AM

Compound	%Recovery	Method Limits
Freon 12	99	70-130
Freon 114	107	70-130
Chloromethane	54 Q	70-130
Vinyl Chloride	107	70-130
1,3-Butadiene	92	70-130
Bromomethane	100	70-130
Chloroethane	93	70-130
Freon 11	102	70-130
Ethanol	71	70-130
Freon 113	100	70-130
1,1-Dichloroethene	98	70-130
Acetone	111	70-130
2-Propanol	73	70-130
Carbon Disulfide	96	70-130
3-Chloropropene	94	70-130
Methylene Chloride	90	70-130
Methyl tert-butyl ether	91	70-130
trans-1,2-Dichloroethene	111	70-130
Hexane	98	70-130
1,1-Dichloroethane	93	70-130
2-Butanone (Methyl Ethyl Ketone)	97	70-130
cis-1,2-Dichloroethene	88	70-130
Tetrahydrofuran	91	70-130
Chloroform	100	70-130
1,1,1-Trichloroethane	101	70-130
Cyclohexane	107	70-130
Carbon Tetrachloride	104	70-130
2,2,4-Trimethylpentane	98	70-130
Benzene	110	70-130
1,2-Dichloroethane	98	70-130
Heptane	114	70-130
Trichloroethene	110	70-130
1,2-Dichloropropane	99	70-130
1,4-Dioxane	100	70-130
Bromodichloromethane	106	70-130
cis-1,3-Dichloropropene	110	70-130
4-Methyl-2-pentanone	80	70-130
Toluene	108	70-130
trans-1,3-Dichloropropene	105	70-130
1,1,2-Trichloroethane	105	70-130
Tetrachloroethene	112	70-130
2-Hexanone	60 Q	70-130

Client Sample ID: LCS

Lab ID#: 1806478C-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p070303	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/3/18 11:14 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	110	70-130
1,2-Dibromoethane (EDB)	109	70-130
Chlorobenzene	106	70-130
Ethyl Benzene	116	70-130
m,p-Xylene	119	70-130
o-Xylene	120	70-130
Styrene	105	70-130
Bromoform	113	70-130
Cumene	117	70-130
1,1,2,2-Tetrachloroethane	93	70-130
Propylbenzene	111	70-130
4-Ethyltoluene	124	70-130
1,3,5-Trimethylbenzene	115	70-130
1,2,4-Trimethylbenzene	112	70-130
1,3-Dichlorobenzene	112	70-130
1,4-Dichlorobenzene	116	70-130
alpha-Chlorotoluene	80	70-130
1,2-Dichlorobenzene	112	70-130
1,2,4-Trichlorobenzene	104	70-130
Hexachlorobutadiene	107	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	108	70-130



Air Toxics

Client Sample ID: LCS D

Lab ID#: 1806478C-19AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p070304	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/3/18 11:41 AM

Compound	%Recovery	Method Limits
Freon 12	101	70-130
Freon 114	109	70-130
Chloromethane	54 Q	70-130
Vinyl Chloride	114	70-130
1,3-Butadiene	97	70-130
Bromomethane	102	70-130
Chloroethane	100	70-130
Freon 11	104	70-130
Ethanol	75	70-130
Freon 113	101	70-130
1,1-Dichloroethene	101	70-130
Acetone	113	70-130
2-Propanol	76	70-130
Carbon Disulfide	96	70-130
3-Chloropropene	94	70-130
Methylene Chloride	90	70-130
Methyl tert-butyl ether	94	70-130
trans-1,2-Dichloroethene	113	70-130
Hexane	101	70-130
1,1-Dichloroethane	95	70-130
2-Butanone (Methyl Ethyl Ketone)	100	70-130
cis-1,2-Dichloroethene	92	70-130
Tetrahydrofuran	94	70-130
Chloroform	103	70-130
1,1,1-Trichloroethane	103	70-130
Cyclohexane	108	70-130
Carbon Tetrachloride	106	70-130
2,2,4-Trimethylpentane	100	70-130
Benzene	111	70-130
1,2-Dichloroethane	99	70-130
Heptane	116	70-130
Trichloroethene	110	70-130
1,2-Dichloropropane	97	70-130
1,4-Dioxane	100	70-130
Bromodichloromethane	106	70-130
cis-1,3-Dichloropropene	111	70-130
4-Methyl-2-pentanone	78	70-130
Toluene	108	70-130
trans-1,3-Dichloropropene	108	70-130
1,1,2-Trichloroethane	106	70-130
Tetrachloroethene	111	70-130
2-Hexanone	61 Q	70-130

Client Sample ID: LCS D

Lab ID#: 1806478C-19AA

EPA METHOD TO-15 GC/MS FULL SCAN

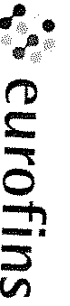
File Name:	p070304	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/3/18 11:41 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	112	70-130
1,2-Dibromoethane (EDB)	110	70-130
Chlorobenzene	107	70-130
Ethyl Benzene	119	70-130
m,p-Xylene	122	70-130
o-Xylene	119	70-130
Styrene	107	70-130
Bromoform	114	70-130
Cumene	119	70-130
1,1,2,2-Tetrachloroethane	94	70-130
Propylbenzene	112	70-130
4-Ethyltoluene	123	70-130
1,3,5-Trimethylbenzene	120	70-130
1,2,4-Trimethylbenzene	116	70-130
1,3-Dichlorobenzene	114	70-130
1,4-Dichlorobenzene	120	70-130
alpha-Chlorotoluene	82	70-130
1,2-Dichlorobenzene	113	70-130
1,2,4-Trichlorobenzene	105	70-130
Hexachlorobutadiene	108	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	108	70-130



Air Toxics

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 RAINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager

Dan Retzold

Page 3 of 4

Collected by: (Print and Sign)

Brian Cobby
[Signature]

Project Info:

P.O. # IN000911.0016

Project # none

Project Name GS Tell City

Turn Around Time:
 Normal
 Rush

Lab Use Only
Pressurized by:

Date:

Pressurization Gas:
N₂ He

Company

Aradix
1501 Market St, Ste 300
Redding, CA 96001
Phone (530) 231-6500 Fax (530) 231-6814

Lab I.D.

Field Sample I.D. (Location)

Can #

Date of Collection

Time of Collection

Analyses Requested

Canister Pressure/Vacuum
Initial Final Receipt Final (psi)

O1A

SS-40 (062018)-A

1L2745

6/20/18 6:40am

11:44-11:59

DBS see project list -245

O2A

SS-40 (062018)-B

1L2789

6/20/18 6:20am

12:15-12:29

-30 -4.0

O4A

FA-47-F (062018)

1L0722

6/20/18 6:21am

12:07-1:10

-30 -8.0

O5A

SS-43 (062018)

8209

6/20/18 6:20am

11:31-11:46

-30 -4.0

O6A

SS-44 (062018)

1L2912

6/20/18 6:20am

07:16-07:31

-30 -5.0

O7A

SS-45 (062018)

1L2883

6/20/18 6:20am

07:29-09:46

-30 -4.5

O8A

SS-48 (062018)

1L2858

6/20/18 6:21am

10:28-10:39

-30 -4.5

O9A

SS-47 (062018)

1L3029

6/20/18 6:21am

11:00-11:15

-30 -4.0

10A

SS-46 (062018)

1L2987

6/20/18 6:21am

11:52-11:46

-30 -5.0

Relinquished by: (signature) *[Signature]* Date/Time 6/22/18 14:30

Received by: (signature) *[Signature]* Date/Time 06/25/18 10:10

Relinquished by: (signature) *[Signature]* Date/Time 6/22/18 14:30

Received by: (signature) *[Signature]* Date/Time 06/25/18 10:10

Relinquished by: (signature) _____ Date/Time _____

Received by: (signature) _____ Date/Time _____

Notes:

See "field" above

Shipper Name

Air Bill #

Temp (°C)

Condition

Custody Seals Intact? Yes No None

Work Order #

Lab Use Only

7811X

AA

6000

506478



Air Toxics

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 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager Don Petzold

Collected by: (Print and Sign) Don Petzold

Company Aerodis

Address 150 W. Market St. Ste. 818

Phone (312) 231-6800

Fax (312) 231-6514

Project Info:

P.O. # IN 000911, 0016

Project # None

Project Name GE Tenn City

Turn Around Time:

Normal

Rush

5-day

Lab Use Only

Pressurized by:

Date:

Pressurization Gas:

N₂ He

Lab I.D. Field Sample I.D. (Location)

IA-49-F(062118)

IA-49-B(062118)

IA-1(062118)

IA-50-F(062118)

IA-50-B(062118)

IA-49(062118)

IA-50(062118)

AA-06/05/18

Can #

6L1684

6L0900

6L1313

6L0973

6L1541

8020

7999

Date of Collection

6/21/18

6/21/18

6/21/18

6/21/18

6/21/18

6/21/18

6/21/18

Time of Collection

1406-1734

1408-1304

1424-1315

1428-1316

1428-1316

1243-1300

1334-1330

Analyses Requested

Vol's see project list

Canister Pressure/Vacuum

Initial Final Receipt Final (psi)

-28 -6.5

-30 -9.0

-30 -7.5

-29.5 -7.0

-30 -6.8

-30 -1.5

-29 -3.0

Relinquished by: (signature) [Signature] Date/Time 6/22/18 1430

Relinquished by: (signature) [Signature] Date/Time 6/22/18 1430

Received by: (signature) [Signature] Date/Time 06/25/18 1010

Received by: (signature) [Signature] Date/Time 06/25/18 1010

Notes:

See hold above

Relinquished by: (signature) Date/Time

Received by: (signature) Date/Time

Shipper Name

Air Bill #

Temp (°C)

Condition

Custody Seals Intact?

Work Order #

Lab Use Only

Shipper Name TTVIX

Air Bill # AA

Temp (°C) 6000

Condition Good

Custody Seals Intact? Yes

Work Order # 1806478

APPENDIX C

Groundwater Laboratory Report



The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Arcadis

GE, 13th Street, Tell City, IN

IN000911-0016

SGS Job Number: JC69325

Sampling Date: 07/03/18

Report to:


Arcadis
150 West Market Suite 728
Indianapolis, IN 46204
Daniel.Petzold@Arcadis.com

ATTN: Daniel Petzold

Total number of pages in report: 35



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.


A. Paul Ioannidis
General Manager

Client Service contact: Diane Komar 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

This report shall not be reproduced, except in its entirety, without the written approval of SGS.
Test results relate only to samples analyzed.

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1

2

3

4

5



Sample Summary

Arcadis

Job No: JC69325

GE, 13th Street, Tell City, IN
Project No: IN000911-0016

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
JC69325-1	07/03/18	13:10 DP	07/06/18	AQ	Water	AP 79-D
JC69325-2	07/03/18	13:25 DP	07/06/18	AQ	Water	AP 80-D
JC69325-3	07/03/18	13:40 DP	07/06/18	AQ	Water	AP 83
JC69325-4	07/03/18	00:00 DP	07/06/18	AQ	Water	DUP 1

Summary of Hits

Job Number: JC69325
Account: Arcadis
Project: GE, 13th Street, Tell City, IN
Collected: 07/03/18

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC69325-1		AP 79-D				
Acetone ^a		5.0 J	10	5.0	ug/l	SW846 8260C
Benzene ^a		0.24 J	0.50	0.17	ug/l	SW846 8260C
Toluene ^a		0.47 J	1.0	0.25	ug/l	SW846 8260C
JC69325-2		AP 80-D				
Acetone ^b		9.1 J	10	5.0	ug/l	SW846 8260C
Benzene ^b		0.53	0.50	0.17	ug/l	SW846 8260C
Chloroform ^b		0.48 J	1.0	0.29	ug/l	SW846 8260C
cis-1,2-Dichloroethene ^b		1.6	1.0	0.50	ug/l	SW846 8260C
trans-1,2-Dichloroethene ^b		0.75 J	1.0	0.40	ug/l	SW846 8260C
Ethylbenzene ^b		0.36 J	1.0	0.22	ug/l	SW846 8260C
Toluene ^b		1.5	1.0	0.25	ug/l	SW846 8260C
1,1,1-Trichloroethane ^b		0.57 J	1.0	0.25	ug/l	SW846 8260C
Trichloroethene ^b		110	1.0	0.27	ug/l	SW846 8260C
m,p-Xylene ^b		0.59 J	1.0	0.43	ug/l	SW846 8260C
Xylene (total) ^b		0.81 J	1.0	0.22	ug/l	SW846 8260C
JC69325-3		AP 83				
Acetone ^c		10.7	10	5.0	ug/l	SW846 8260C
Benzene ^c		0.21 J	0.50	0.17	ug/l	SW846 8260C
Chloromethane ^c		0.66 J	1.0	0.53	ug/l	SW846 8260C
cis-1,2-Dichloroethene ^c		2.4	1.0	0.50	ug/l	SW846 8260C
Tetrachloroethene ^c		0.54 J	1.0	0.50	ug/l	SW846 8260C
Toluene ^c		0.29 J	1.0	0.25	ug/l	SW846 8260C
Trichloroethene ^c		12.7	1.0	0.27	ug/l	SW846 8260C
JC69325-4		DUP 1				
Acetone		5.7 J	10	5.0	ug/l	SW846 8260C
Chloromethane		0.62 J	1.0	0.53	ug/l	SW846 8260C
cis-1,2-Dichloroethene		2.5	1.0	0.50	ug/l	SW846 8260C
Tetrachloroethene		0.66 J	1.0	0.50	ug/l	SW846 8260C
Toluene		0.38 J	1.0	0.25	ug/l	SW846 8260C
Trichloroethene		13.0	1.0	0.27	ug/l	SW846 8260C

- (a) (pH= 8)Sample pH did not satisfy field preservation criteria.
- (b) (pH= 7)Sample pH did not satisfy field preservation criteria.
- (c) (pH= 5)Sample pH did not satisfy field preservation criteria.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: AP 79-D		Date Sampled: 07/03/18
Lab Sample ID: JC69325-1		Date Received: 07/06/18
Matrix: AQ - Water		Percent Solids: n/a
Method: SW846 8260C		
Project: GE, 13th Street, Tell City, IN		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	3B147831.D	1	07/11/18 16:42	DG	n/a	n/a	V3B6559
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	5.0	10	5.0	ug/l	J
71-43-2	Benzene	0.24	0.50	0.17	ug/l	J
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.27	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.34	ug/l	
56-23-5	Carbon tetrachloride ^b	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.30	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.24	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	AP 79-D	Date Sampled:	07/03/18
Lab Sample ID:	JC69325-1	Date Received:	07/06/18
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	GE, 13th Street, Tell City, IN		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane ^b	ND	1.0	0.30	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.29	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.34	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.24	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.45	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	1.1	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane ^b	ND	1.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	0.47	1.0	0.25	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane ^b	ND	2.0	0.60	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.47	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	113%		80-120%
17060-07-0	1,2-Dichloroethane-D4	110%		81-124%
2037-26-5	Toluene-D8	91%		80-120%
460-00-4	4-Bromofluorobenzene	83%		80-120%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: AP 79-D Lab Sample ID: JC69325-1 Matrix: AQ - Water Method: SW846 8260C Project: GE, 13th Street, Tell City, IN	Date Sampled: 07/03/18 Date Received: 07/06/18 Percent Solids: n/a
--	---

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
---------	----------	--------	----	-----	-------	---

- (a) (pH= 8)Sample pH did not satisfy field preservation criteria.
- (b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: AP 80-D		Date Sampled: 07/03/18
Lab Sample ID: JC69325-2		Date Received: 07/06/18
Matrix: AQ - Water		Percent Solids: n/a
Method: SW846 8260C		
Project: GE, 13th Street, Tell City, IN		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	3B147830.D	1	07/11/18 16:13	DG	n/a	n/a	V3B6559
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	9.1	10	5.0	ug/l	J
71-43-2	Benzene	0.53	0.50	0.17	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.27	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.34	ug/l	
56-23-5	Carbon tetrachloride ^b	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	0.48	1.0	0.29	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.30	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.24	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.6	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.75	1.0	0.40	ug/l	J
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	AP 80-D	Date Sampled:	07/03/18
Lab Sample ID:	JC69325-2	Date Received:	07/06/18
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	GE, 13th Street, Tell City, IN		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane ^b	ND	1.0	0.30	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.29	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	0.36	1.0	0.22	ug/l	J
87-68-3	Hexachlorobutadiene	ND	2.0	0.34	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.24	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.45	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	1.1	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane ^b	ND	1.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	1.5	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.57	1.0	0.25	ug/l	J
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	110	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane ^b	ND	2.0	0.60	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.47	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	0.59	1.0	0.43	ug/l	J
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	0.81	1.0	0.22	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		80-120%
17060-07-0	1,2-Dichloroethane-D4	110%		81-124%
2037-26-5	Toluene-D8	95%		80-120%
460-00-4	4-Bromofluorobenzene	85%		80-120%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: AP 80-D	
Lab Sample ID: JC69325-2	Date Sampled: 07/03/18
Matrix: AQ - Water	Date Received: 07/06/18
Method: SW846 8260C	Percent Solids: n/a
Project: GE, 13th Street, Tell City, IN	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
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- (a) (pH= 7)Sample pH did not satisfy field preservation criteria.
- (b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: AP 83		Date Sampled: 07/03/18
Lab Sample ID: JC69325-3		Date Received: 07/06/18
Matrix: AQ - Water		Percent Solids: n/a
Method: SW846 8260C		
Project: GE, 13th Street, Tell City, IN		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	3B147833.D	1	07/11/18 17:40	DG	n/a	n/a	V3B6559
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	10.7	10	5.0	ug/l	
71-43-2	Benzene	0.21	0.50	0.17	ug/l	J
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.27	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.34	ug/l	
56-23-5	Carbon tetrachloride ^b	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	0.66	1.0	0.53	ug/l	J
95-49-8	o-Chlorotoluene	ND	2.0	0.30	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.24	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.4	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	AP 83	Date Sampled:	07/03/18
Lab Sample ID:	JC69325-3	Date Received:	07/06/18
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	GE, 13th Street, Tell City, IN		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane ^b	ND	1.0	0.30	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.29	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.34	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.24	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.45	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	1.1	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane ^b	ND	1.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	0.54	1.0	0.50	ug/l	J
108-88-3	Toluene	0.29	1.0	0.25	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	12.7	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane ^b	ND	2.0	0.60	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.47	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	115%		80-120%
17060-07-0	1,2-Dichloroethane-D4	110%		81-124%
2037-26-5	Toluene-D8	93%		80-120%
460-00-4	4-Bromofluorobenzene	83%		80-120%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: AP 83 Lab Sample ID: JC69325-3 Matrix: AQ - Water Method: SW846 8260C Project: GE, 13th Street, Tell City, IN	Date Sampled: 07/03/18 Date Received: 07/06/18 Percent Solids: n/a
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VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
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- (a) (pH= 5)Sample pH did not satisfy field preservation criteria.
- (b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound



Report of Analysis

Client Sample ID: DUP 1		Date Sampled: 07/03/18
Lab Sample ID: JC69325-4		Date Received: 07/06/18
Matrix: AQ - Water		Percent Solids: n/a
Method: SW846 8260C		
Project: GE, 13th Street, Tell City, IN		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3B147832.D	1	07/11/18 17:11	DG	n/a	n/a	V3B6559
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	5.7	10	5.0	ug/l	J
71-43-2	Benzene	ND	0.50	0.17	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.27	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.34	ug/l	
56-23-5	Carbon tetrachloride ^a	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	0.62	1.0	0.53	ug/l	J
95-49-8	o-Chlorotoluene	ND	2.0	0.30	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.24	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.5	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DUP 1		
Lab Sample ID: JC69325-4		Date Sampled: 07/03/18
Matrix: AQ - Water		Date Received: 07/06/18
Method: SW846 8260C		Percent Solids: n/a
Project: GE, 13th Street, Tell City, IN		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane ^a	ND	1.0	0.30	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.29	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.34	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.24	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.45	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	1.1	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane ^a	ND	1.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	0.66	1.0	0.50	ug/l	J
108-88-3	Toluene	0.38	1.0	0.25	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	13.0	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane ^a	ND	2.0	0.60	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.47	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	114%		80-120%
17060-07-0	1,2-Dichloroethane-D4	109%		81-124%
2037-26-5	Toluene-D8	91%		80-120%
460-00-4	4-Bromofluorobenzene	82%		80-120%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DUP 1		Date Sampled: 07/03/18
Lab Sample ID: JC69325-4		Date Received: 07/06/18
Matrix: AQ - Water		Percent Solids: n/a
Method: SW846 8260C		
Project: GE, 13th Street, Tell City, IN		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
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(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



*WV
WTB*

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL 732-329-0200 FAX 732-329-3499
www.sgs.com/ehsusu

FED-EX Tracking # 6257 634K 0838	Bottle Order Control # DK-05218-6P
SGS Quote #	SGS Job # JL69325

Client / Reporting Information		Project Information					Requested Analysis (see TEST CODE sheet)										Matrix Codes				
Company Name Arceadis		Project Name 6E TEL CITY															LW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank EB-Rinse Blank RB-Trip Blank TB-Trip Blank				
Street Address 150 W Market Ste 728		Billing Information (if different from Report to)															LAB USE ONLY				
City State Zip Indy IN 46204		Company Name																			
Project Contact Daniel Petzold		Project # IN000911-0016																			
Phone # Fax #		Client Purchase Order #																			
Sampler(s) Name(s) Daniel Petzold		Project Manager Jon Akin																			
Lab Sample #	Field ID / Point of Collection	MEOH/ID Vial #	Collection			Matrix	# of bottles	Number of preserved bottles													
			Date	Time	Sampled by			HCl	NH ₄ OH	HNO ₃	H ₂ SO ₄	HNO ₂	HNO ₃	H ₂ O ₂	ED	Water	MEDIH		ENCORE		
1	AP 79-D		7-3-18	1:10	DP	6W	3														
2	AP 80-D			1:25		6W	3														
3	AP 83			1:40		6W	3														
4	Dup 1						3														
5	Trip Blank																				
INITIAL ASSESSMENT <i>DP</i>		3A																			
LABEL VERIFICATION																					
Turnaround Time (Business days)		Data Deliverable Information					Comments / Special Instructions														

<input type="checkbox"/> Standard 10 Business Days <input checked="checked" type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day RUSH <input type="checkbox"/> 2 Day RUSH <input type="checkbox"/> 1 Day RUSH <input type="checkbox"/> other _____		Approved by (SGS Project Manager)/Date: _____		<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> NJ Reduced <input type="checkbox"/> Commercial "C" <input type="checkbox"/> NJ Data of Known Quality Protocol Reporting Commercial "A" = Results Only; Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data			<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____			Sample inventory is verified upon receipt in the Laboratory			
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Relinquished by: <i>DP</i>	Date Time: 7-3-18 3:20	Received By: <i>FED EX</i>	Date Time: 7/3/18
Relinquished by: <i>DP</i>	Date Time: 7-3-18 3:20	Received By: <i>FED EX</i>	Date Time: 7/3/18
Relinquished by: <i>DP</i>	Date Time: 7-3-18 3:20	Received By: <i>FED EX</i>	Date Time: 7/3/18

Form SM088-03C (revised 2/12/18)

<http://www.sgs.com/en/terms-and-conditions>

SGS Sample Receipt Summary

Job Number: JC69325

Client: ARCADIS

Project: GE, 13TH STREET, TELL CITY, IN

Date / Time Received: 7/6/2018 10:00:00 AM

Delivery Method: FedEx

Airbill #'s:

Cooler Temps (Raw Measured) °C: Cooler 1: (2.1);

Cooler Temps (Corrected) °C: Cooler 1: (2.1);

Cooler Security

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | IR Gun | |
| 3. Cooler media: | Ice (Bag) | |
| 4. No. Coolers: | 1 | |

Quality Control Preservation

- | | | | |
|---------------------------------|-------------------------------------|--------------------------|--------------------------|
| 1. Trip Blank present / cooler: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Trip Blank listed on COC: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Documentation

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume recvd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Test Strip Lot #s: pH 1-12: 216017 pH 12+: 208717 Other: (Specify)

Comments -5: Received 3 - 40mL NP vials without any ID in cooler. All other vials accounted for. Please confirm these are the TBs.

JC69325: Chain of Custody

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4.1
4

As per Dan Petzold - do not log in the extra vials as the TB, please disregard of vials.

JC69325: Chain of Custody
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MS Volatiles

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: JC69325
Account: AGMINI Arcadis
Project: GE, 13th Street, Tell City, IN

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3B6559-MB	3B147816.D	1	07/11/18	DG	n/a	n/a	V3B6559

The QC reported here applies to the following samples:

Method: SW846 8260C

JC69325-1, JC69325-2, JC69325-3, JC69325-4

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.25	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.27	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.34	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.30	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.24	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.30	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.29	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	

Method Blank Summary

Job Number: JC69325
Account: AGMINI Arcadis
Project: GE, 13th Street, Tell City, IN

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3B6559-MB	3B147816.D	1	07/11/18	DG	n/a	n/a	V3B6559

The QC reported here applies to the following samples:

Method: SW846 8260C

JC69325-1, JC69325-2, JC69325-3, JC69325-4

CAS No.	Compound	Result	RL	MDL	Units	Q
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.34	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.24	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.45	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	1.1	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.19	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.47	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	114%	80-120%
17060-07-0	1,2-Dichloroethane-D4	108%	81-124%
2037-26-5	Toluene-D8	95%	80-120%
460-00-4	4-Bromofluorobenzene	86%	80-120%

Method Blank Summary

Job Number: JC69325
Account: AGMINI Arcadis
Project: GE, 13th Street, Tell City, IN

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3B6559-MB	3B147816.D	1	07/11/18	DG	n/a	n/a	V3B6559

The QC reported here applies to the following samples:

Method:

JC69325-1, JC69325-2, JC69325-3, JC69325-4

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JC69325
Account: AGMINI Arcadis
Project: GE, 13th Street, Tell City, IN

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3B6559-BS	3B147814.D	1	07/11/18	DG	n/a	n/a	V3B6559

The QC reported here applies to the following samples:

Method: SW846 8260C

JC69325-1, JC69325-2, JC69325-3, JC69325-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	199	100	42-150
71-43-2	Benzene	50	51.0	102	80-120
108-86-1	Bromobenzene	50	51.1	102	82-118
74-97-5	Bromochloromethane	50	58.1	116	84-121
75-27-4	Bromodichloromethane	50	55.9	112	83-120
75-25-2	Bromoform	50	55.5	111	76-129
74-83-9	Bromomethane	50	51.1	102	57-138
78-93-3	2-Butanone (MEK)	200	199	100	64-137
104-51-8	n-Butylbenzene	50	51.4	103	81-123
135-98-8	sec-Butylbenzene	50	53.9	108	84-121
98-06-6	tert-Butylbenzene	50	54.4	109	83-122
56-23-5	Carbon tetrachloride	50	62.1	124	75-135
108-90-7	Chlorobenzene	50	51.5	103	84-117
75-00-3	Chloroethane	50	52.1	104	63-132
67-66-3	Chloroform	50	52.9	106	80-119
74-87-3	Chloromethane	50	49.5	99	46-136
95-49-8	o-Chlorotoluene	50	51.9	104	84-118
106-43-4	p-Chlorotoluene	50	47.8	96	83-116
96-12-8	1,2-Dibromo-3-chloropropane	50	56.9	114	72-127
124-48-1	Dibromochloromethane	50	53.5	107	80-123
106-93-4	1,2-Dibromoethane	50	48.6	97	84-117
95-50-1	1,2-Dichlorobenzene	50	54.3	109	84-119
541-73-1	1,3-Dichlorobenzene	50	51.8	104	81-117
106-46-7	1,4-Dichlorobenzene	50	51.8	104	82-117
75-71-8	Dichlorodifluoromethane	50	54.9	110	36-149
75-34-3	1,1-Dichloroethane	50	53.9	108	79-120
107-06-2	1,2-Dichloroethane	50	52.4	105	78-126
75-35-4	1,1-Dichloroethene	50	61.2	122	69-126
156-59-2	cis-1,2-Dichloroethene	50	54.1	108	80-120
156-60-5	trans-1,2-Dichloroethene	50	55.7	111	76-120
78-87-5	1,2-Dichloropropane	50	50.4	101	82-121
142-28-9	1,3-Dichloropropane	50	48.3	97	83-115
594-20-7	2,2-Dichloropropane	50	59.0	118	65-133
563-58-6	1,1-Dichloropropene	50	52.7	105	80-121
10061-01-5	cis-1,3-Dichloropropene	50	49.4	99	83-120
10061-02-6	trans-1,3-Dichloropropene	50	48.6	97	82-121

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC69325
Account: AGMINI Arcadis
Project: GE, 13th Street, Tell City, IN

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3B6559-BS	3B147814.D	1	07/11/18	DG	n/a	n/a	V3B6559

The QC reported here applies to the following samples:

Method: SW846 8260C

JC69325-1, JC69325-2, JC69325-3, JC69325-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
100-41-4	Ethylbenzene	50	50.2	100	80-120
87-68-3	Hexachlorobutadiene	50	59.0	118	75-129
98-82-8	Isopropylbenzene	50	53.9	108	83-120
99-87-6	p-Isopropyltoluene	50	54.3	109	83-122
1634-04-4	Methyl Tert Butyl Ether	50	50.7	101	80-119
108-10-1	4-Methyl-2-pentanone(MIBK)	200	190	95	71-131
74-95-3	Methylene bromide	50	56.1	112	85-120
75-09-2	Methylene chloride	50	56.5	113	77-120
91-20-3	Naphthalene	50	59.4	119	73-131
103-65-1	n-Propylbenzene	50	49.6	99	82-119
100-42-5	Styrene	50	49.1	98	82-122
630-20-6	1,1,1,2-Tetrachloroethane	50	57.4	115	82-121
79-34-5	1,1,2,2-Tetrachloroethane	50	51.7	103	76-119
127-18-4	Tetrachloroethene	50	54.4	109	70-131
108-88-3	Toluene	50	49.9	100	80-120
87-61-6	1,2,3-Trichlorobenzene	50	61.7	123	76-134
120-82-1	1,2,4-Trichlorobenzene	50	60.9	122	79-132
71-55-6	1,1,1-Trichloroethane	50	61.4	123	81-128
79-00-5	1,1,2-Trichloroethane	50	52.3	105	83-118
79-01-6	Trichloroethene	50	55.4	111	80-120
75-69-4	Trichlorofluoromethane	50	56.4	113	64-136
96-18-4	1,2,3-Trichloropropane	50	49.6	99	79-120
95-63-6	1,2,4-Trimethylbenzene	50	50.8	102	84-120
108-67-8	1,3,5-Trimethylbenzene	50	52.2	104	83-119
75-01-4	Vinyl chloride	50	52.4	105	51-135
	m,p-Xylene	100	101	101	80-120
95-47-6	o-Xylene	50	51.9	104	80-120
1330-20-7	Xylene (total)	150	153	102	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	80-120%
17060-07-0	1,2-Dichloroethane-D4	99%	81-124%
2037-26-5	Toluene-D8	96%	80-120%
460-00-4	4-Bromofluorobenzene	87%	80-120%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC69325
Account: AGMINI Arcadis
Project: GE, 13th Street, Tell City, IN

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC69405-3MS	3B147825.D	1	07/11/18	DG	n/a	n/a	V3B6559
JC69405-3	3B147817.D	1	07/11/18	DG	n/a	n/a	V3B6559

The QC reported here applies to the following samples:

Method: SW846 8260C

JC69325-1, JC69325-2, JC69325-3, JC69325-4

CAS No.	Compound	JC69405-3 ug/l	Spike Q	MS ug/l	MS %	Limits
67-64-1	Acetone	ND	200	194	97	34-149
71-43-2	Benzene	ND	50	51.7	103	54-136
108-86-1	Bromobenzene	ND	50	51.6	103	78-122
74-97-5	Bromochloromethane	ND	50	58.2	116	79-124
75-27-4	Bromodichloromethane	ND	50	54.4	109	79-124
75-25-2	Bromoform	ND	50	54.7	109	71-130
74-83-9	Bromomethane	ND	50	61.3	123	53-142
78-93-3	2-Butanone (MEK)	ND	200	186	93	54-142
104-51-8	n-Butylbenzene	ND	50	52.5	105	73-133
135-98-8	sec-Butylbenzene	ND	50	55.1	110	76-132
98-06-6	tert-Butylbenzene	ND	50	55.4	111	76-131
56-23-5	Carbon tetrachloride	ND	50	67.2	134	70-143
108-90-7	Chlorobenzene	ND	50	52.1	104	78-123
75-00-3	Chloroethane	ND	50	63.0	126	57-141
67-66-3	Chloroform	ND	50	53.1	106	76-123
74-87-3	Chloromethane	ND	50	58.9	118	43-141
95-49-8	o-Chlorotoluene	ND	50	52.4	105	78-124
106-43-4	p-Chlorotoluene	ND	50	48.2	96	77-122
96-12-8	1,2-Dibromo-3-chloropropane	ND	50	55.6	111	66-130
124-48-1	Dibromochloromethane	ND	50	52.6	105	76-125
106-93-4	1,2-Dibromoethane	ND	50	49.1	98	78-119
95-50-1	1,2-Dichlorobenzene	ND	50	54.5	109	77-123
541-73-1	1,3-Dichlorobenzene	ND	50	52.4	105	76-122
106-46-7	1,4-Dichlorobenzene	ND	50	52.0	104	76-122
75-71-8	Dichlorodifluoromethane	ND	50	74.7	149	31-159
75-34-3	1,1-Dichloroethane	ND	50	56.1	112	73-126
107-06-2	1,2-Dichloroethane	ND	50	49.2	98	72-131
75-35-4	1,1-Dichloroethene	ND	50	72.2	144* a	63-136
156-59-2	cis-1,2-Dichloroethene	ND	50	55.7	111	60-136
156-60-5	trans-1,2-Dichloroethene	ND	50	61.6	123	70-126
78-87-5	1,2-Dichloropropane	ND	50	50.4	101	78-124
142-28-9	1,3-Dichloropropane	ND	50	47.2	94	78-118
594-20-7	2,2-Dichloropropane	ND	50	63.7	127	59-141
563-58-6	1,1-Dichloropropene	ND	50	54.4	109	75-130
10061-01-5	cis-1,3-Dichloropropene	ND	50	49.0	98	79-123
10061-02-6	trans-1,3-Dichloropropene	ND	50	48.3	97	77-123

* = Outside of Control Limits.

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Matrix Spike Summary

Job Number: JC69325
Account: AGMINI Arcadis
Project: GE, 13th Street, Tell City, IN

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC69405-3MS	3B147825.D	1	07/11/18	DG	n/a	n/a	V3B6559
JC69405-3	3B147817.D	1	07/11/18	DG	n/a	n/a	V3B6559

The QC reported here applies to the following samples:

Method: SW846 8260C

JC69325-1, JC69325-2, JC69325-3, JC69325-4

CAS No.	Compound	JC69405-3 ug/l	Spike Q	MS ug/l	MS %	Limits
100-41-4	Ethylbenzene	ND	50	51.4	103	51-140
87-68-3	Hexachlorobutadiene	ND	50	61.7	123	64-141
98-82-8	Isopropylbenzene	ND	50	54.5	109	75-129
99-87-6	p-Isopropyltoluene	ND	50	55.2	110	76-131
1634-04-4	Methyl Tert Butyl Ether	ND	50	54.3	109	72-123
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	200	180	90	66-136
74-95-3	Methylene bromide	ND	50	53.3	107	81-121
75-09-2	Methylene chloride	ND	50	63.8	128* a	73-125
91-20-3	Naphthalene	ND	50	59.9	120	62-141
103-65-1	n-Propylbenzene	ND	50	50.5	101	68-133
100-42-5	Styrene	ND	50	49.4	99	75-129
630-20-6	1,1,1,2-Tetrachloroethane	ND	50	56.1	112	77-124
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	50.8	102	71-122
127-18-4	Tetrachloroethene	ND	50	54.6	109	61-139
108-88-3	Toluene	ND	50	49.6	99	60-135
87-61-6	1,2,3-Trichlorobenzene	ND	50	62.6	125	70-138
120-82-1	1,2,4-Trichlorobenzene	ND	50	61.2	122	72-137
71-55-6	1,1,1-Trichloroethane	ND	50	65.3	131	74-138
79-00-5	1,1,2-Trichloroethane	ND	50	50.3	101	78-121
79-01-6	Trichloroethene	ND	50	55.6	111	62-141
75-69-4	Trichlorofluoromethane	ND	50	71.8	144	57-149
96-18-4	1,2,3-Trichloropropane	ND	50	48.0	96	74-122
95-63-6	1,2,4-Trimethylbenzene	ND	50	50.4	101	54-143
108-67-8	1,3,5-Trimethylbenzene	ND	50	51.7	103	67-133
75-01-4	Vinyl chloride	ND	50	66.4	133	43-146
	m,p-Xylene	ND	100	102	102	50-144
95-47-6	o-Xylene	ND	50	51.4	103	63-134
1330-20-7	Xylene (total)	ND	150	154	103	56-139

CAS No.	Surrogate Recoveries	MS	JC69405-3	Limits
1868-53-7	Dibromofluoromethane	105%	116%	80-120%
17060-07-0	1,2-Dichloroethane-D4	92%	111%	81-124%
2037-26-5	Toluene-D8	94%	94%	80-120%
460-00-4	4-Bromofluorobenzene	87%	84%	80-120%

* = Outside of Control Limits.

5.3.1
5

Matrix Spike Summary

Job Number: JC69325
Account: AGMINI Arcadis
Project: GE, 13th Street, Tell City, IN

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC69405-3MS	3B147825.D	1	07/11/18	DG	n/a	n/a	V3B6559
JC69405-3	3B147817.D	1	07/11/18	DG	n/a	n/a	V3B6559

The QC reported here applies to the following samples:

Method: SW846 8260C

JC69325-1, JC69325-2, JC69325-3, JC69325-4

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC69325
Account: AGMINI Arcadis
Project: GE, 13th Street, Tell City, IN

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC69405-4DUP	3B147827.D	1	07/11/18	DG	n/a	n/a	V3B6559
JC69405-4	3B147818.D	1	07/11/18	DG	n/a	n/a	V3B6559

The QC reported here applies to the following samples:

Method: SW846 8260C

JC69325-1, JC69325-2, JC69325-3, JC69325-4

CAS No.	Compound	JC69405-4 ug/l	DUP Q	ug/l	Q	RPD	Limits
67-64-1	Acetone	ND		ND		nc	20
71-43-2	Benzene	ND		ND		nc	20
108-86-1	Bromobenzene	ND		ND		nc	20
74-97-5	Bromochloromethane	ND		ND		nc	20
75-27-4	Bromodichloromethane	ND		ND		nc	20
75-25-2	Bromoform	ND		ND		nc	20
74-83-9	Bromomethane	ND		ND		nc	20
78-93-3	2-Butanone (MEK)	ND		ND		nc	20
104-51-8	n-Butylbenzene	ND		ND		nc	20
135-98-8	sec-Butylbenzene	ND		ND		nc	20
98-06-6	tert-Butylbenzene	ND		ND		nc	20
56-23-5	Carbon tetrachloride	ND		ND		nc	20
108-90-7	Chlorobenzene	ND		ND		nc	20
75-00-3	Chloroethane	ND		ND		nc	20
67-66-3	Chloroform	ND		ND		nc	20
74-87-3	Chloromethane	ND		ND		nc	20
95-49-8	o-Chlorotoluene	ND		ND		nc	20
106-43-4	p-Chlorotoluene	ND		ND		nc	20
96-12-8	1,2-Dibromo-3-chloropropane	ND		ND		nc	20
124-48-1	Dibromochloromethane	ND		ND		nc	20
106-93-4	1,2-Dibromoethane	ND		ND		nc	20
95-50-1	1,2-Dichlorobenzene	ND		ND		nc	20
541-73-1	1,3-Dichlorobenzene	ND		ND		nc	20
106-46-7	1,4-Dichlorobenzene	ND		ND		nc	20
75-71-8	Dichlorodifluoromethane	ND		ND		nc	20
75-34-3	1,1-Dichloroethane	ND		ND		nc	20
107-06-2	1,2-Dichloroethane	ND		ND		nc	20
75-35-4	1,1-Dichloroethene	ND		ND		nc	20
156-59-2	cis-1,2-Dichloroethene	ND		ND		nc	20
156-60-5	trans-1,2-Dichloroethene	ND		ND		nc	20
78-87-5	1,2-Dichloropropane	ND		ND		nc	20
142-28-9	1,3-Dichloropropane	ND		ND		nc	20
594-20-7	2,2-Dichloropropane	ND		ND		nc	20
563-58-6	1,1-Dichloropropene	ND		ND		nc	20
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	20
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	20

* = Outside of Control Limits.

5.4.1
5

Duplicate Summary

Job Number: JC69325
Account: AGMINI Arcadis
Project: GE, 13th Street, Tell City, IN

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC69405-4DUP	3B147827.D	1	07/11/18	DG	n/a	n/a	V3B6559
JC69405-4	3B147818.D	1	07/11/18	DG	n/a	n/a	V3B6559

The QC reported here applies to the following samples:

Method: SW846 8260C

JC69325-1, JC69325-2, JC69325-3, JC69325-4

CAS No.	Compound	JC69405-4 ug/l	DUP Q ug/l	Q	RPD	Limits
100-41-4	Ethylbenzene	ND	ND		nc	20
87-68-3	Hexachlorobutadiene	ND	ND		nc	20
98-82-8	Isopropylbenzene	ND	ND		nc	20
99-87-6	p-Isopropyltoluene	ND	ND		nc	20
1634-04-4	Methyl Tert Butyl Ether	ND	ND		nc	20
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	ND		nc	20
74-95-3	Methylene bromide	ND	ND		nc	20
75-09-2	Methylene chloride	ND	ND		nc	20
91-20-3	Naphthalene	ND	ND		nc	20
103-65-1	n-Propylbenzene	ND	ND		nc	20
100-42-5	Styrene	ND	ND		nc	20
630-20-6	1,1,1,2-Tetrachloroethane	ND	ND		nc	20
79-34-5	1,1,2,2-Tetrachloroethane	ND	ND		nc	20
127-18-4	Tetrachloroethene	ND	ND		nc	20
108-88-3	Toluene	ND	ND		nc	20
87-61-6	1,2,3-Trichlorobenzene	ND	ND		nc	20
120-82-1	1,2,4-Trichlorobenzene	ND	ND		nc	20
71-55-6	1,1,1-Trichloroethane	ND	ND		nc	20
79-00-5	1,1,2-Trichloroethane	ND	ND		nc	20
79-01-6	Trichloroethene	ND	ND		nc	20
75-69-4	Trichlorofluoromethane	ND	ND		nc	20
96-18-4	1,2,3-Trichloropropane	ND	ND		nc	20
95-63-6	1,2,4-Trimethylbenzene	ND	ND		nc	20
108-67-8	1,3,5-Trimethylbenzene	ND	ND		nc	20
75-01-4	Vinyl chloride	ND	ND		nc	20
	m,p-Xylene	ND	ND		nc	20
95-47-6	o-Xylene	ND	ND		nc	20
1330-20-7	Xylene (total)	ND	ND		nc	20

CAS No.	Surrogate Recoveries	DUP	JC69405-4	Limits
1868-53-7	Dibromofluoromethane	109%	117%	80-120%
17060-07-0	1,2-Dichloroethane-D4	101%	112%	81-124%
2037-26-5	Toluene-D8	93%	92%	80-120%
460-00-4	4-Bromofluorobenzene	85%	84%	80-120%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JC69325
Account: AGMINI Arcadis
Project: GE, 13th Street, Tell City, IN

Sample: V3B6539-BFB	Injection Date: 06/22/18
Lab File ID: 3B147428.D	Injection Time: 15:56
Instrument ID: GCMS3B	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	10300	18.9	Pass
75	30.0 - 60.0% of mass 95	26501	48.6	Pass
95	Base peak, 100% relative abundance	54528	100.0	Pass
96	5.0 - 9.0% of mass 95	3599	6.60	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 150.0% of mass 95	48224	88.4	Pass
175	5.0 - 9.0% of mass 174	4015	7.36 (8.33) ^a	Pass
176	95.0 - 101.0% of mass 174	48021	88.1 (99.6) ^a	Pass
177	5.0 - 9.0% of mass 176	3075	5.64 (6.40) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3B6539-IC6539	3B147429.D	06/22/18	16:35	00:39	Initial cal 0.2
V3B6539-IC6539	3B147430.D	06/22/18	17:04	01:08	Initial cal 0.5
V3B6539-IC6539	3B147431.D	06/22/18	17:32	01:36	Initial cal 1
V3B6539-IC6539	3B147432.D	06/22/18	18:01	02:05	Initial cal 2
V3B6539-IC6539	3B147433.D	06/22/18	18:29	02:33	Initial cal 5
V3B6539-IC6539	3B147434.D	06/22/18	18:58	03:02	Initial cal 10
V3B6539-IC6539	3B147435.D	06/22/18	19:27	03:31	Initial cal 20
V3B6539-ICC6539	3B147436.D	06/22/18	19:55	03:59	Initial cal 50
V3B6539-IC6539	3B147437.D	06/22/18	20:24	04:28	Initial cal 100
V3B6539-IC6539	3B147438.D	06/22/18	20:53	04:57	Initial cal 200
V3B6539-ICV6539	3B147441.D	06/22/18	22:19	06:23	Initial cal verification 50
V3B6539-ICV6539	3B147442.D	06/22/18	22:48	06:52	Initial cal verification 50

5.5.1
5

Instrument Performance Check (BFB)

Job Number: JC69325
Account: AGMINI Arcadis
Project: GE, 13th Street, Tell City, IN

Sample: V3B6559-BFB	Injection Date: 07/11/18
Lab File ID: 3B147812.D	Injection Time: 06:47
Instrument ID: GCMS3B	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	9387	19.0	Pass
75	30.0 - 60.0% of mass 95	24509	49.7	Pass
95	Base peak, 100% relative abundance	49301	100.0	Pass
96	5.0 - 9.0% of mass 95	3101	6.29	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 150.0% of mass 95	47877	97.1	Pass
175	5.0 - 9.0% of mass 174	4060	8.24 (8.48) ^a	Pass
176	95.0 - 101.0% of mass 174	46432	94.2 (97.0) ^a	Pass
177	5.0 - 9.0% of mass 176	3244	6.58 (6.99) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3B6559-CC6539	3B147812.D	07/11/18	06:47	00:00	Continuing cal 20
V3B6559-BS	3B147814.D	07/11/18	08:08	01:21	Blank Spike
V3B6559-MB	3B147816.D	07/11/18	09:18	02:31	Method Blank
JC69405-3	3B147817.D	07/11/18	09:57	03:10	(used for QC only; not part of job JC69325)
JC69405-4	3B147818.D	07/11/18	10:26	03:39	(used for QC only; not part of job JC69325)
ZZZZZZ	3B147819.D	07/11/18	10:55	04:08	(unrelated sample)
ZZZZZZ	3B147820.D	07/11/18	11:24	04:37	(unrelated sample)
ZZZZZZ	3B147821.D	07/11/18	11:53	05:06	(unrelated sample)
ZZZZZZ	3B147822.D	07/11/18	12:22	05:35	(unrelated sample)
ZZZZZZ	3B147823.D	07/11/18	12:51	06:04	(unrelated sample)
ZZZZZZ	3B147824.D	07/11/18	13:20	06:33	(unrelated sample)
JC69405-3MS	3B147825.D	07/11/18	13:49	07:02	Matrix Spike
JC69405-4DUP	3B147827.D	07/11/18	14:47	08:00	Duplicate
ZZZZZZ	3B147828.D	07/11/18	15:16	08:29	(unrelated sample)
ZZZZZZ	3B147829.D	07/11/18	15:44	08:57	(unrelated sample)
JC69325-2	3B147830.D	07/11/18	16:13	09:26	AP 80-D
JC69325-1	3B147831.D	07/11/18	16:42	09:55	AP 79-D
JC69325-4	3B147832.D	07/11/18	17:11	10:24	DUP 1
JC69325-3	3B147833.D	07/11/18	17:40	10:53	AP 83
ZZZZZZ	3B147834.D	07/11/18	18:09	11:22	(unrelated sample)
ZZZZZZ	3B147835.D	07/11/18	18:38	11:51	(unrelated sample)

5.5.2
5

Surrogate Recovery Summary

Job Number: JC69325
Account: AGMINI Arcadis
Project: GE, 13th Street, Tell City, IN

Method: SW846 8260C	Matrix: AQ
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC69325-1	3B147831.D	113	110	91	83
JC69325-2	3B147830.D	111	110	95	85
JC69325-3	3B147833.D	115	110	93	83
JC69325-4	3B147832.D	114	109	91	82
JC69405-3MS	3B147825.D	105	92	94	87
JC69405-4DUP	3B147827.D	109	101	93	85
V3B6559-BS	3B147814.D	104	99	96	87
V3B6559-MB	3B147816.D	114	108	95	86

Surrogate Compounds	Recovery Limits
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S1 = Dibromofluoromethane	80-120%
S2 = 1,2-Dichloroethane-D4	81-124%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	80-120%

5.6.1
5

APPENDIX D

Field Notes



Location _____ Date _____

Project / Client _____

20-25 37"

Sand fine coarsening
down to medium w/ some
fine gravel Dry

25-30 33"

sand as above
saturated

30-35 15" sand
saturated

35-40

0.1 @ 5 0 @ 10

0 @ 15 0 @ 20

0 @ 25 0 @ 30

0 @ 35

Location _____ Date 7-3-18

Project / Client _____

AP-83

8:10 AM

0-3' Hand auger y-brown
silty clay to clayey silt
soft s. moist

3-5' = 24" Dark brown,
18" as above
rest clayey sand yellowish
brown v. fine grained
v. moist

5-10 33"

fine sand clayey at
top grading to v. s. clayey
yellowish brown v. fine
wet

10-15 30"

as above becoming all
sand & drier w/ little
laminated in lower 1/2

AP 83

15-20 24"

sand as above

20-25 28"

sand becoming medium
grained trace gravel
Dry

25-30 28

sand as above
wet about 9" down

30-35 49"

15" saturated sand

rest gray silty clay

Set well to 35'

@ 5' screen

AP 79-A

9:10

0-5' 33

7" fill

rest bluish gray silty

clay v. moist

1/2" mottled silty clay
at base

5-10 56"

35" yellowish brown silty
clay moist

rest yellowish brown clayey
sand moist

10-15 34"

as above but more clay
harder - less moisture

AP79 A

15-20 54" dark brown
s. clayey sand, vs fine
sand moist

20-25 40"
23" as above
rest med grained sand
well sorted moist Tr. gravel

25-30 25"
sand & gravel med sand
w/ fine to medium gravel in
layers

30-35 34"
medium to coarse sand
w/ fine gravel, y-brown
dry to moist

AP79A

35-40

as above
saturated at 37'

40-45

ran down to 47 on 1 run

40-47 5'

saturated sand
medium grained well sorted
fine at base

5' leaving sand -
pull out and put expandable
point on end & drive
to 55'

Hammering changed at
52' set piezoant at 55'
5' screen

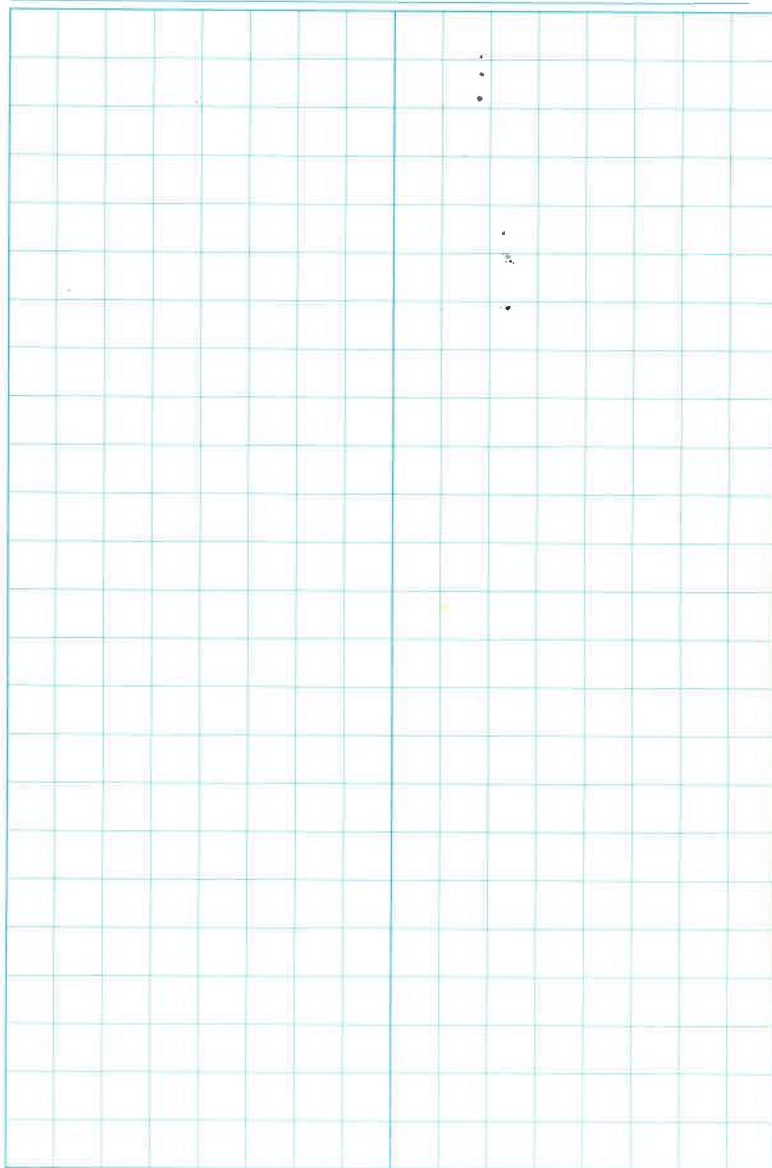
AP 83

Run discrete sampler
50-55'

50-55' all fine to medium
grained sand. saturated

AP 80-D

run discrete sampler to
~~50'~~ 55' screen
50-55'



Arcadis U.S., Inc.

150 W. Market Street

Suite 728

Indianapolis, Indiana 46204

Tel 317 231 6500

Fax 317 231 6514

www.arcadis.com

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150 W. Market Street

Suite 728

Indianapolis, Indiana 46204

Tel 317 231 6500

Fax 317 231 6514

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