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January 6, 2021

City of Covington, Kentucky  
c/o M. Zack Hohl, Esquire  
Graydon Head & Ritchey, LLP  
312 Walnut Street, Suite 1800  
Cincinnati, Ohio 45202

**Re: Phase II Environmental Site Assessment Addendum  
Former IRS Facility**

W. Fourth Street, Covington, KY  
ATC Project Number 241EN00753

Dear Mr. Hohl:

ATC Group Services LLC (ATC) has completed the above-referenced project, in general accordance with ATC Proposal No. 20-20253, dated October 7, 2020. The purpose of the project was to investigate potential sources of vapor intrusion as identified during previous investigations. Accordingly, our scope of services included: i) paired sub-slab and indoor air sampling/analysis, ii) investigation of the extent/source of solvent impacted groundwater beneath the northeast portion of the property and iii) data compilation/evaluation. This letter report documents our findings.

## **BACKGROUND INFORMATION**

ATC recently completed investigation of the property as documented in the following reports:

- Phase I ESA (July 31, 2020),
- Asbestos Inspection (August 28, 2020) and
- Phase II ESA (August 28, 2020).

Follow-up pre-demolition asbestos and hazardous materials inspection was performed as part of this project, as documented under separate cover in a report dated November 19, 2020.

The Phase I ESA identified *recognized environmental conditions* at the property that were evaluated on an expedited basis during the Phase II study. Phase II findings included identification of sub-slab conditions locally in excess of vapor intrusion screening levels (VISLs) for naphthalene in a residential exposure scenario, and an indoor air sample in excess of commercial/industrial exposure standards. Naphthalene was also detected at low concentrations in groundwater north and south of the central portion of the building where the potential vapor intrusion issues were quantified. Volatile organic compounds (VOCs) were also quantified at low concentrations in groundwater beneath the northeast portion of the property.

This study is specifically designed to supplement previous Phase II data in the central and northeast portions of the property as outlined above.

Phase II study also identified the presence of three residual underground storage tanks (USTs) at the property, as well as a concrete vault that may be an oil/water separator. Further evaluation of the USTs was not included within the scope of work for this project.

## SUPPLEMENTAL PHASE II ESA

### Field Methodology

#### Vapor Intrusion Evaluation

Naphthalene detected in groundwater, sub-slab and indoor air samples in the central portion of the property was further investigated to evaluate the potential need for vapor mitigation in association with potential future development. Paired sub-slab and indoor air samples were collected from six locations in the building. Two samples of ambient air and a blind duplicate were also collected and analyzed as a quality control measure relative to data evaluation.

Sample locations were based upon previous Phase II data (locations placed in areas where prior impact was quantified), as well as in other areas laterally within the building to quantify conditions spatially. Soil gas sample ports were installed at six locations as shown in Figure 1.

The concrete floor at each location was cored and a Vapor Pin™ placed in each core hole. Each vapor probe location was connected to a Multi Gas Meter to detect Oxygen (O<sub>2</sub>) via Nylaflow™ tubing to monitor for anaerobic conditions and for field screening levels of VOCs sub-slab. Readings were taken at one minute intervals for five minutes and recorded in a field log. The sample assembly was attached to a dedicated six-liter summa canister using an 8-hour regulator. Sub-slab vapor samples were collected from each probe. Sampling data forms are included in Attachment A.

Indoor air samples were collected concurrently in the immediate vicinity of each sub-slab sampling location. The indoor air samples were collected over the same 8-hour period, with sampling at approximate breathing height (five feet elevation above the floor) at each location.

Samples of ambient air were also collected from two locations proximal to areas sampled (see Figure 1) and a blind duplicate was collected through the use of a "T" connector in tubing from a sub-slab location (SV-11).

Samples were collected on October 28, 2020 and submitted to ALS Environmental in Blue Ash, Ohio using chain of custody controls for VOC analysis by EPA Method TO-15.

### VOC Source Investigation

#### **Preliminary Investigation: Punch Bar Testing**

Additional investigation was undertaken in the northeast portion of the property in the area of monitoring well MW-12, where chlorinated organic compounds were previously quantified in groundwater. The purpose of such study was to evaluate concentrations of VOCs beneath the asphalt, as a potential indicator of a source area of impacted soil from which the VOCs quantified at MW-12 had leached.

Punch bar testing was performed in the area around MW-12 on October 28, 2020. A punch bar was driven through asphalt on 20-feet centers to an approximate depth of 14 inches (approximately six inches into native soils beneath the base of the asphalt/sub-base). The tip of a photoionization detector (PID) calibrated to tetrachloroethylene (PCE) using an isobutylene standard and ionization potential coefficient. The maximum PID reading was recorded for each location.

A total of eighteen punch bar locations were advanced at locations as shown in Figure 2. The maximum PID reading (16.4 parts per million [ppm]) was recorded at PB-6, collected from the casing at monitoring well MW-12. PID readings from the other punch bar locations were not suggestive of significant impact (maximum PID reading of 6.6 ppm), nor did they show a pattern consistent with a potential on-site source (beyond a localized source in the immediate vicinity of MW-12). Previous soil sampling/analysis from the MW-12 boring did not quantify elevated concentrations of VOCs at that location.

### **Soil and Groundwater Sampling/Analysis**

ATC remobilized to the site following initial punch bar soil gas investigation and advanced three soil borings with temporary monitoring wells to quantify soil and groundwater conditions laterally in the vicinity of MW-12. Boring/well locations are shown in Figure 3.

EnviroCore, Inc. (an ATC subcontractor) advanced the borings to saturated conditions (approximate total depth of 24-28 feet) using “hydraulic-push” on December 7, 2020. Soil samples were collected continuously from the borings and split into two portions: one placed in a sealable plastic bag for field screening, and the other collected in an appropriate glass jar, sealed, and placed on ice in a cooler for potential laboratory analysis. Samples were field screened with a PID; elevated PID readings and/or other evidence of potential environmental impact were not observed in samples collected from the borings. Boring logs are provided in Attachment B.

Temporary one-inch inside diameter polyvinyl chloride casing was installed in each borehole to facilitate grab groundwater sampling. Samples were collected from each temporary well using low-flow sampling techniques via a peristaltic pump and dedicated Teflon tubing. A groundwater sample was also collected from monitoring well MW-12. Samples were collected in appropriate glassware (40 ml VOA vials) and placed on ice in a cooler for analysis.

Given the lack of apparent impact encountered in the borings, the soil sample from immediately above the zone of saturation from each boring and groundwater samples were submitted to ALS Laboratories using chain of custody controls for VOC analysis by USEPA Method 8260.

## **Findings**

### **Vapor Intrusion Evaluation**

Several VOCs were quantified in sub-slab samples collected from the six locations identified. However, concentrations were relatively low; none of the VOC concentrations quantified exceeded vapor intrusion screening levels (VISLs) for a commercial/industrial exposure scenario. Naphthalene was quantified in one sample at a concentration in excess of VISLs for a residential exposure scenario. Sub-slab data is summarized in Table 1. A complete copy of the laboratory report is provided in Attachment C.

Concentrations of VOCs quantified in indoor air were relatively elevated. Concentrations of benzene and naphthalene exceeded VISLs in all of the indoor samples analyzed, as well as in the ambient air samples analyzed from outside the building and “up-gradient” in the building. Indoor air data (including the ambient outdoor sample) is summarized in Table 2. A complete copy of the laboratory report is included in Attachment C.

### **VOC Source Investigation**

Tetrachloroethene (PCE) was detected in one of the three soil samples analyzed at a low concentration (0.019 ppm); no other VOCs were detected in the soil samples analyzed. Analytical data is summarized in Table 3 and shown spatially (including data from the original Phase II ESA) in Figure 3. The laboratory report is included in Attachment D.

PCE was detected in the grab groundwater sampled collected from the temporary well/boring east of MW-12 at a concentration of 0.028 ppm. No other VOCs were quantified in the three grab samples. PCE and TCE were detected in groundwater sampled from monitoring well MW-12 at slightly lower concentrations than were previously quantified. Data is summarized in Table 4 and shown spatially (including data from the original Phase II ESA) in Figure 4. A complete copy of the laboratory report is provided in Attachment D.

### **CONCLUSIONS AND RECOMMENDATIONS**

Sub-slab air data quantified in areas investigated did not quantify conditions suggestive of vapor intrusion at concentrations in excess of VISLs for a commercial/industrial exposure scenario<sup>1</sup>. Indoor air concentrations quantified exceeded VISLs and were inconsistent with sub-slab conditions quantified. Such findings are not necessarily suggestive of issues associated with vapor intrusion, and suggest relatively elevated concentrations of VOCs (including benzene and naphthalene at concentrations above screening levels) throughout the building and in its vicinity. Concentrations were similarly elevated in an ambient air sample collected outside the building as a control point.

Conditions quantified in the northeast portion of the property are not suggestive of an on-property source area of significance, nor potential issues with vapor intrusion from VOCs in that portion of the property. VOC impact in that area appears to be localized. Given that groundwater in the area is not a source of potable water, vapor intrusion is the primary exposure pathway of concern in association with the VOCs quantified in shallow groundwater and at low concentrations in soil in the MW-12 vicinity. Such concentrations should not pose an unacceptable health risk via the vapor intrusion exposure pathway.

Relative to redevelopment of the property, a soils management plan should be developed and implemented to ensure appropriate management of potentially impacted soils disturbed during such activities, as well as to minimize potential worker exposure issues. Consideration should be given to inclusion of vapor mitigation systems (and associated evaluation of air quality in general) in association with buildings installed in the central portion of the property.

Although beyond the scope of this study, residual USTs (and associated impact, if present) should also be addressed prior to or in conjunction with redevelopment activities.

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<sup>1</sup> VISL calculations are included in Attachment E.

Please do not hesitate to contact us if you have questions or comments, or if we can be of further service in any way.

Sincerely,

**ATC GROUP SERVICES LLC**



Michael Baumgartner  
Project Geologist



Michael J. Luessen, P.G.  
Principal Geologist

Attachments (5)

## **LIST OF ATTACHMENTS**

### Figures

- Figure 1 – Sub-slab/Indoor Air Sample Location Map
- Figure 2 – Punch Bar Location Map/Readings
- Figure 3 – Supplemental Sample Location Map/Soil Summary
- Figure 4 – Supplemental Data Groundwater Summary

### Tables

- Table 1 – Sub-slab Data Summary
- Table 2 – Indoor Air Data Summary
- Table 3 – Supplemental Soil Data Summary
- Table 4 – Supplemental Groundwater Data Summary

### Attachment A

Air Sampling Data

### Attachment B

Boring Logs

### Attachment C

Laboratory Report - Air

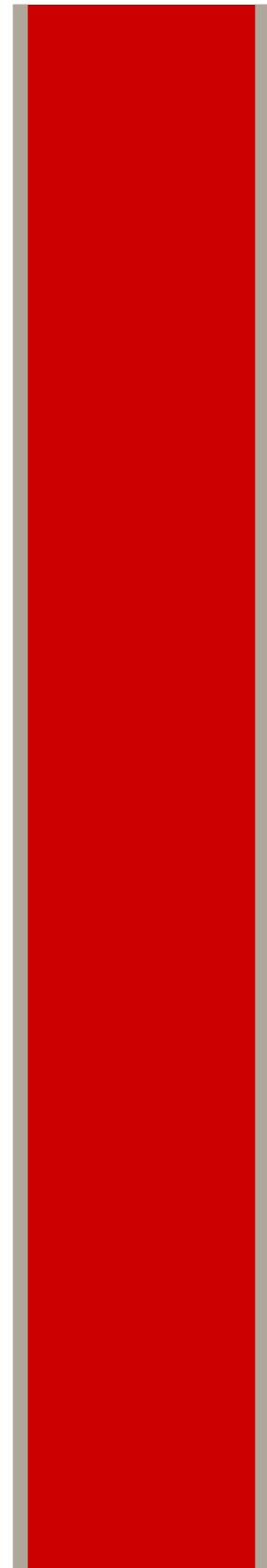
### Attachment D

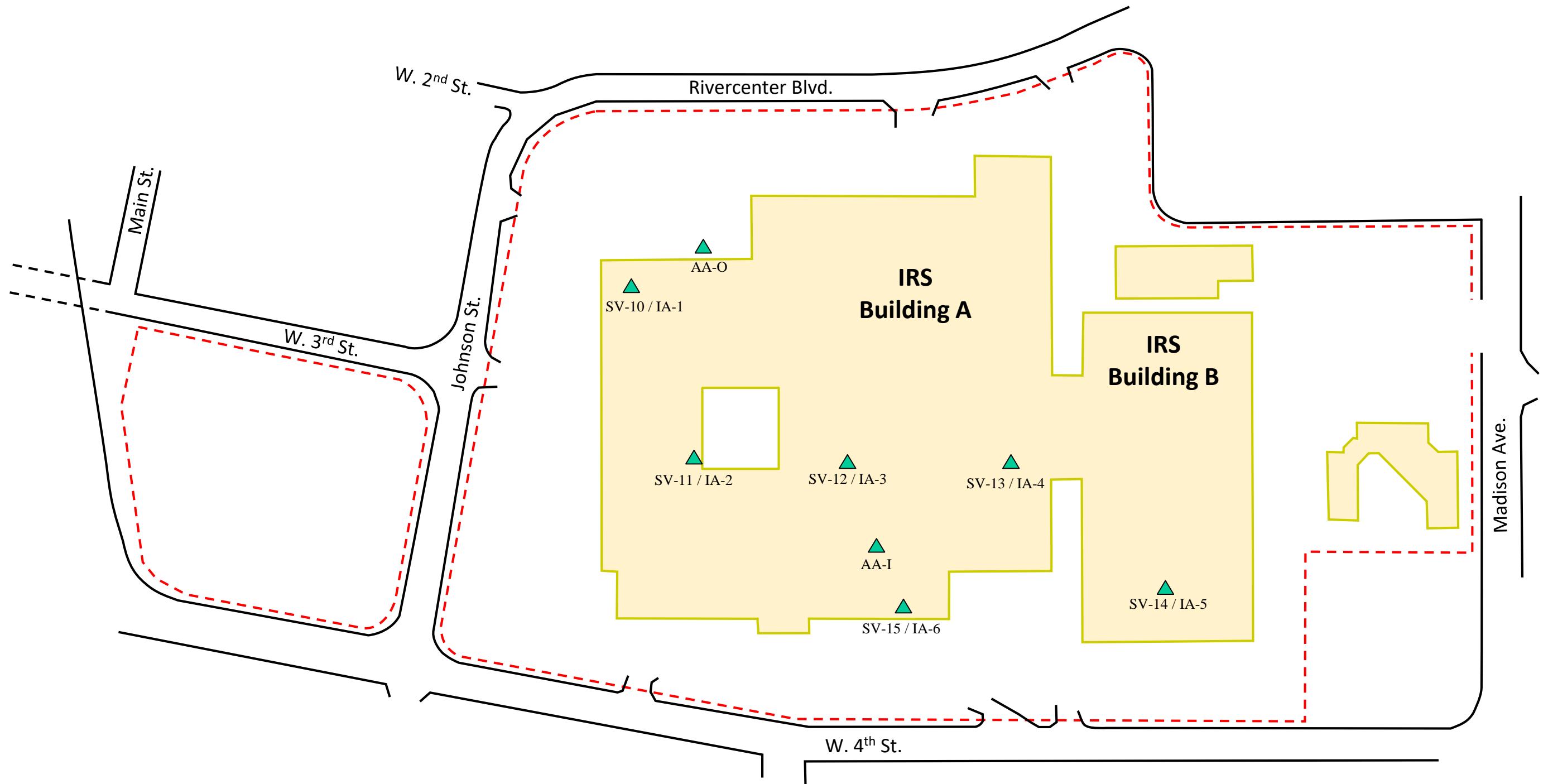
Laboratory Report – Soil and Groundwater

### Attachment E

VISL Calculations

## Figures





#### LEGEND

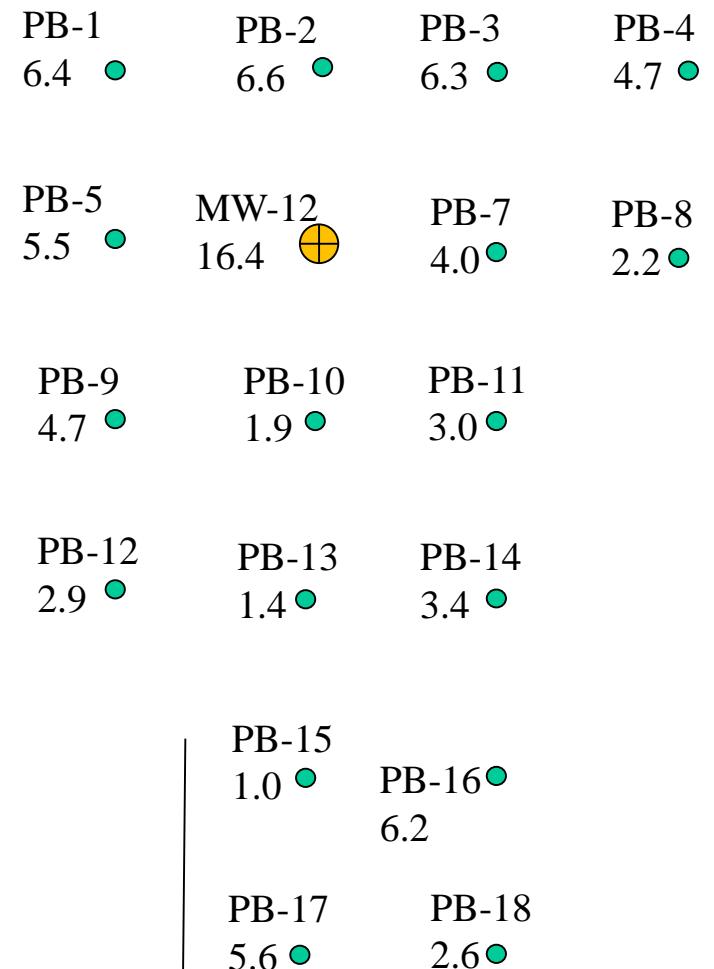
- Property boundary
- Existing building
- Sampling Location

**FIGURE 1**  
**Sub-Slab and Indoor Air Sampling**  
 Phase II ESA Addendum  
 Former Internal Revenue Service Property  
 200 West Fourth Street  
 Covington, Kenton County, Kentucky



11121 Canal Road  
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Project No: 241EN00753	Date: 10-28-20
Drawn By: MCB	Reviewed By: ML
Scale: 1" ~ 150'	



● Punch bar location and PID reading – 14" depth

⊕ Well location

All PID readings are in Parts per Million

**FIGURE 2**  
**Punch Bar Sampling Summary**  
Phase II Environmental Site Assessment  
Former Internal Revenue Service Property  
200 West Fourth Street  
Covington, Kenton County, Kentucky

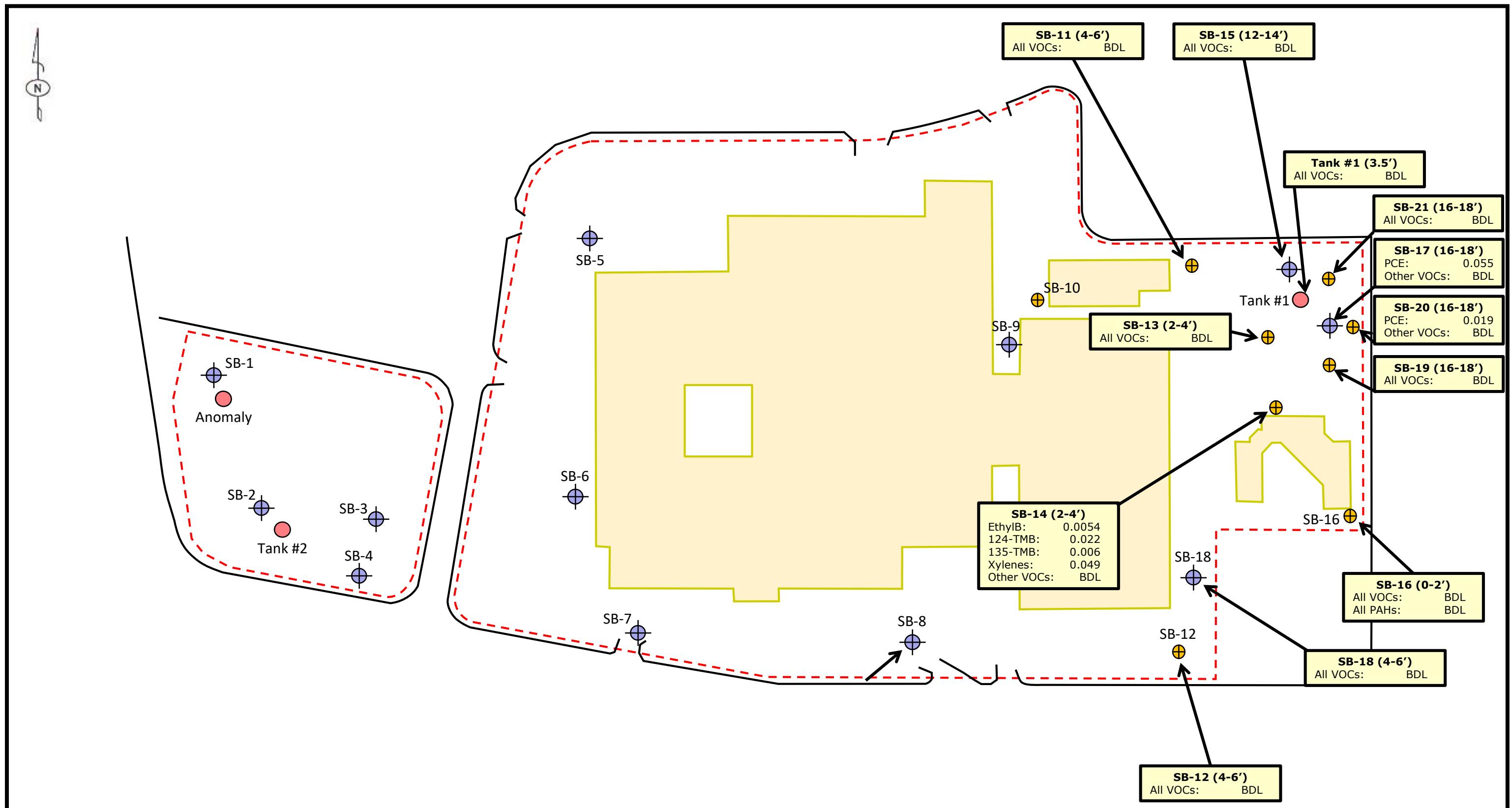


11121 Canal Road  
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Project No: EN24100715

Date: 11-09-20

Drawn By: JMO      Reviewed By: ML



### LEGEND

Legend	
Volatile Organic Compounds	
Ethylbenzene:	
Tetrachloroethene:	
1,2,4-Trimethylbenzene:	
1,3,5-Trimethylbenzene:	
VOCS	
EthylB	
PCE	
124-TMB	
135-TMB	

**Results in mg/kg**

### FIGURE 3 – SOIL ANALYTICAL RESULTS SUMMARY MAP

Phase II ESA Addendum - VOC Delineation  
Former Internal Revenue Service Property  
200 West Fourth Street  
Covington, Kenton County, Kentucky

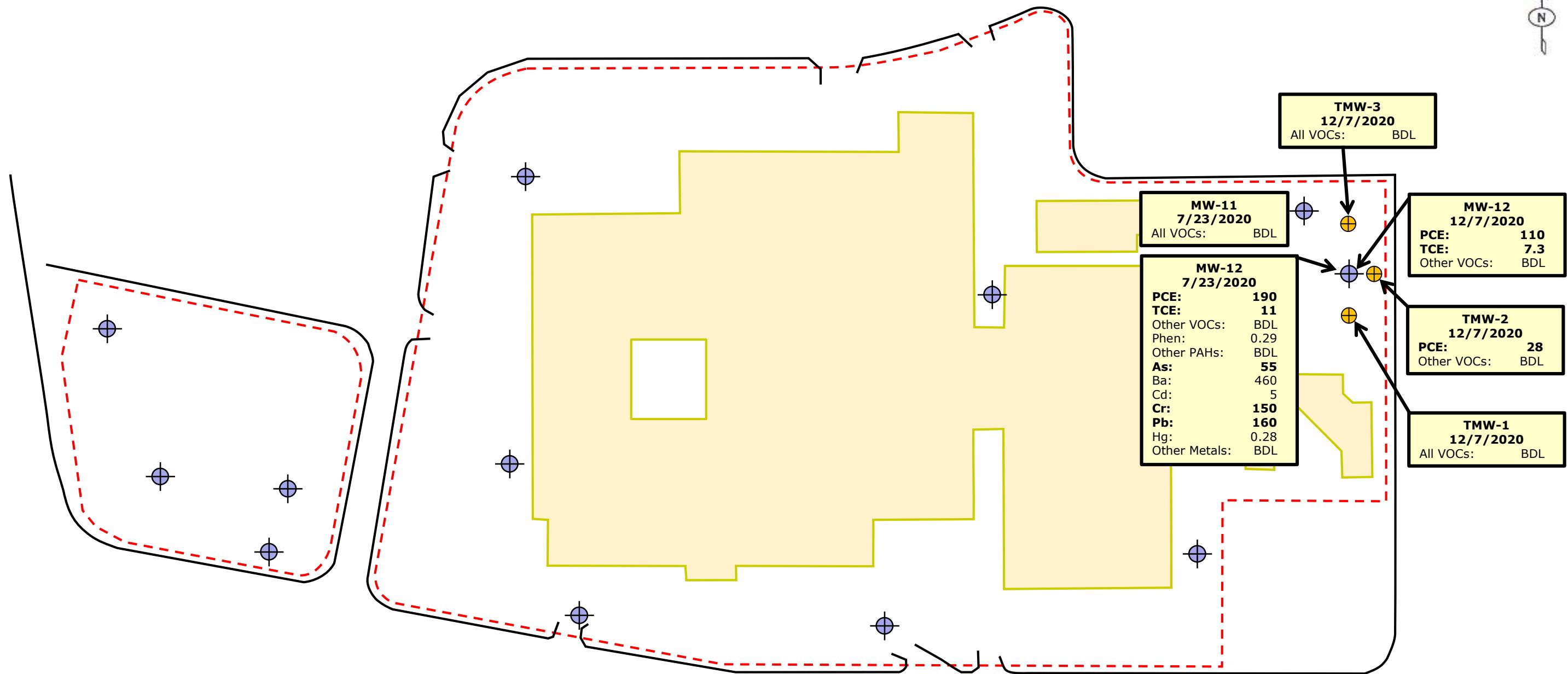


**ATC**  
AN ATLAS COMPANY

11121 Canal Road  
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(513) 771-2112

Project No: 241EN00715	Date: 12-16-20
Drawn By: MCB	Reviewed By: ML
Scale: 1" ~ 150'	

N



Legend	
Volatile Organic Compounds	VOCs
Tetrachloroethene:	PCE
Trichloroethene:	TCE

Results in  $\mu\text{g/L}$

- Property boundary
- Existing building
- Monitoring Well (7/23/20 Sampling)
- Soil Boring / Temporary Monitoring Well (12/7/20 Sampling)

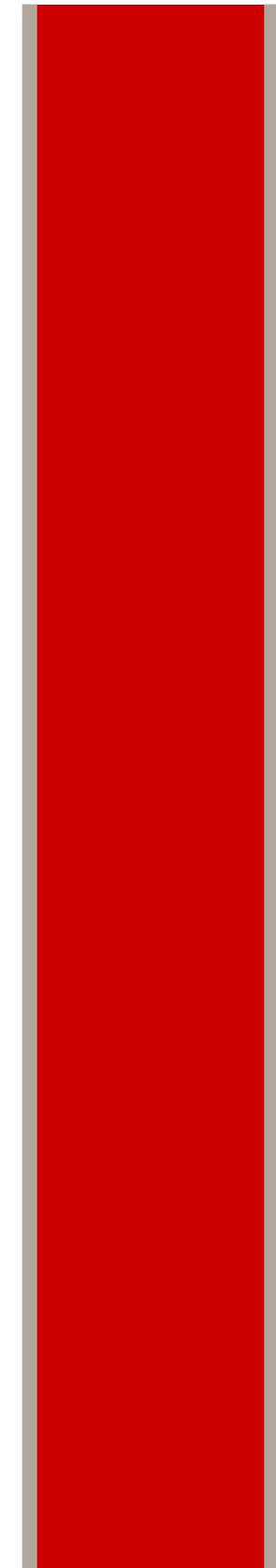
**FIGURE 4 – GROUNDWATER ANALYTICAL RESULTS SUMMARY MAP**  
Phase II Environmental Site Assessment  
Former Internal Revenue Service Property  
200 West Fourth Street  
Covington, Kenton County, Kentucky



11121 Canal Road  
Cincinnati, Ohio 45241  
(513) 771-2112

Project No: EN24100715	Date: 12-16-20
Drawn By: MCB	Reviewed By: ML
Scale: 1" ~ 150'	

## Tables



**TABLE 1 - Sub-Slab Vapor Analytical Results Summary**

Former Internal Revenue Service Property

200 West Fourth Street, Covington, KY

(results given in  $\mu\text{g}/\text{m}^3$ )

Sample ID	SV-10	SV-11	Duplicate	SV-12	SV-13	SV-14	SV-15	Maximum Concentration	USEPA VISL Sub-slab Soil Target Concentrations <sup>1</sup>		
Location	NW Corner Building A	Former SV-2 Location	Duplicate of SV-11	Center Building A	West Central Building A	South Central Building B	South Central Building A		Commercial	Residential	
Date Collected	10/28/20										
Volatile Organic Compounds (VOCs)	Acetone	59.8 E	102 E	106 E	186 E	436	25.5	177 E	436	4,510,000	1,070,000
	Benzene	2.30	0.735	<0.0540	2.88	5.49	2.20	4.12	5.49	52.4	12
	2-Butanone (MEK)	5.57	6.10	6.75	17.1	42.4	3.07	16.1	42.4	730,000	174,000
	Carbon Disulfide	<1.56	<1.56	<1.56	1.62	<1.56	<1.56	1.65	1.65	102,000	24,300
	Chloromethane	<1.03	<1.03	<1.03	<1.03	<1.03	<1.03	<1.03		13,100	3,130
	Cyclohexane	1.86	<1.72	<1.72	3.82	5.75	1.79	4.72	5.75	876,000	209,000
	Dichlorodifluoromethane	<2.47	3.02	3.26	3.86	4.95	<2.47	6.23	6.23	14,600	3,480
	Ethylbenzene	5.82	8.68	8.99	4.91	14.0	3.91	9.08	14.0	164	37.4
	Freon 113	<3.83	<3.83	<3.83	<3.83	<3.83	4.90	<3.83	4.90	NITI	NITI
	N-Heptane	5.70	2.13	2.17	8.61	16.6	7.13	15.0	16.6	58,400	13,900
	N-Hexane	5.00	2.11	2.08	7.90	11.2	5.32	12.1	12.1	102,000	24,300
	2-Hexanone (methyl butyl ketone)	<4.10	<4.10	<4.10	10.6	19.3	<4.10	5.49	19.3	4,380	1,040
	Naphthalene	1.05	1.21	1.83	2.31	<b>3.04</b>	1.83	2.04	<b>3.04</b>	12	<b>2.75</b>
	2-Propanol (isopropyl alcohol)	14.6	6.66	6.69	11.2	19.3	10.9	8.38	19.3	29,200	6,950
	4-methyl-2-pentanone (MIBK)	19.4	<4.10	<4.10	<4.10	7.46	<4.10	<4.10	19.4	438,000	104,000
	Tetrachloroethylene (PCE)	3.73	<3.39	<3.39	<3.39	<3.39	<3.39	4.41	4.41	1,570	360
	Trichloroethylene (TCE)	0.430	<0.330	<0.330	<0.330	1.40	<0.330	<0.330	1.40	99.7	15.9
	Toluene	8.03	3.73	3.62	11.3	25.7	9.53	20.0	25.7	730,000	174,000
	1,1,1-Trichloroethane	<2.73	<2.73	<2.73	47.2	<2.73	31.2	<2.73	47.2	730,000	174,000
	Trichlorofluoromethane	<2.81	<2.81	<2.81	<2.81	<2.81	4.38	3.31	4.38	NITI	NITI
	1,2,4-Trimethylbenzene	2.90	2.70	2.80	5.80	10.8	2.56	7.13	10.8	8,760	2,090
	1,3,5-Trimethylbenzene	<2.46	<2.46	<2.46	<2.46	3.69	<2.46	<2.46	3.69	8,760	2,090
	m,p-Xylene	16.6	13.5	14.2	15.0	60.1	6.77	14.6			
	o-Xylene	6.90	12.2	12.7	11.4	42.9	3.26	7.08	103	14,600 (total)	3,480 (total)
	All other VOCs	BDL	BDL	BDL	BDL	BDL	BDL	BDL			

## Detected value

**BOLD** Above Commercial or Residential VISL

BDL: Below laboratory detection limit

"E" Value above laboratory quantitation range

VISL: Vapor Intrusion Screening Levels

NITI: No Inhalation Toxicity Information

**TABLE 2 - Indoor /Outdoor Air Analytical Results Summary**  
 Former Internal Revenue Service Property  
 200 West Fourth Street, Covington, KY  
 (results given in  $\mu\text{g}/\text{m}^3$ )

Sample ID	IA-1	IA-2	IA-3	IA-4	IA-5	IA-6	AA-I	AA-O	USEPA VISL Indoor Air Target Concentrations <sup>1</sup>		
Location	SV-10	SV-11	SV-12	SV-13	SV-14	SV-15	Indoor Air	Outdoor Air	Commercial	Residential	
Date Collected	10/28/20										
Volatile Organic Compounds (VOCs)	Acetone	32.9	46.8	50.3	48.4	40.8	43.0	52.8	9.62	135,000	32,200
	Benzene	<b>0.926</b>	<b>0.767</b>	<b>0.767</b>	<b>0.767</b>	<b>0.799</b>	<b>0.767</b>	<b>0.799</b>	<b>0.735</b>	1.57	<b>0.36</b>
	2-Butanone (MEK)	<2.95	<2.95	<2.95	<2.95	<2.95	<2.95	<2.95	<2.95	21,900	5,210
	Carbon Disulfide	<1.56	<1.56	<1.56	<1.56	<1.56	<1.56	<1.56	<1.56	3,070	730
	Chloromethane	1.18	1.18	1.18	1.26	1.30	1.30	1.24	1.26	394	93.9
	Cyclohexane	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	26,300	6,260
	Dichlorodifluoromethane	<2.47	<2.47	<2.47	<2.47	<2.47	<2.47	<2.47	2.87	438	104
	Ethylbenzene	0.564	0.521	0.521	0.521	0.478	0.521	0.521	0.391	4.91	1.12
	Freon 113	<3.83	<3.83	<3.83	<3.83	<3.83	<3.83	<3.83	<3.83	NITI	NITI
	N-Heptane	<2.05	2.25	2.79	2.66	2.70	2.62	2.75	<2.05	1,750	417
	N-Hexane	2.26	4.05	4.79	4.76	5.00	4.65	4.86	<1.76	3,070	730
	2-Hexanone (methyl butyl ketone)	<4.10	<4.10	<4.10	<4.10	<4.10	<4.10	<4.10	<4.10	131	31.3
	Naphthalene	<b>&lt;0.540</b>	<b>0.577</b>	<b>&lt;0.540</b>	<b>&lt;0.540</b>	<b>1.21</b>	<b>&lt;0.540</b>	<b>0.786</b>	<b>&lt;0.540</b>	<b>0.361</b>	<b>0.083</b>
	2-Propanol (isopropyl alcohol)	7.91	9.95	11.2	11.0	7.96	7.28	11.7	<2.46	876	209
	4-methyl-2-pentanone (MIBK)	<4.10	<4.10	<4.10	<4.10	<4.10	<4.10	<4.10	<4.10	13,100	3,130
	Tetrachloroethene (PCE)	<3.39	<3.39	<3.39	<3.39	<3.39	<3.39	<3.39	<3.39	47	10.8
	Trichloroethene (TCE)	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	2.99	0.478
	Toluene	3.35	2.83	2.94	3.09	2.60	2.56	2.94	3.73	21,900	5,210
	1,1,1-Trichloroethane	<2.73	<2.73	<2.73	<2.73	<2.73	<2.73	<2.73	<2.73	21,900	5,210
	Trichlorofluoromethane	<2.81	<2.81	<2.81	<2.81	<2.81	3.37	<2.81	<2.81	NITI	NITI
	1,2,4-Trimethylbenzene	<2.46	<2.46	<2.46	<2.46	<2.46	<2.46	<2.46	<2.46	263	62.6
	1,3,5-Trimethylbenzene	<2.46	<2.46	<2.46	<2.46	<2.46	<2.46	<2.46	<2.46	263	62.6
	m,p-Xylene	<2.17	<2.17	<2.17	<2.17	<2.17	<2.17	<2.17	<2.17	438 (total)	
	o-Xylene	<2.17	<2.17	<2.17	<2.17	<2.17	<2.17	<2.17	<2.17	104 (total)	
	All other VOCs	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		

# # Detected value

**BOLD** Above Commercial or Residential VISL

BDL: Below laboratory detection limit

"E" Value above laboratory quantitation range

VISL: Vapor Intrusion Screening Levels

NITI: No Inhalation Toxicity Information

**TABLE 3 - Soil Analytical Results Summary (VOC Delineation)**

Former Internal Revenue Service Property

200 West Fourth Street, Covington, KY

(mg/kg)

Boring ID		Regional Screening Levels (RSLs) May 2020		<b>SB-17</b>	<b>SB-19</b>	<b>SB-20</b>	<b>SB-21</b>
Depth (feet)	16-18			16-18	16-18	16-18	16-18
Date	7/16/20			12/7/20	12/7/20	12/7/20	12/7/20
Location	Resident Soil	Industrial Soil	Electro Plating	Southern Delineation	Eastern Delineation	Northern Delineation	
PID (ppm)			2.1	1.8	2.2	1.7	
VOCs	Tetrachloroethene (PCE)	24	100	0.055	<0.0062	0.019	<0.0064
	All Other VOCs	---	---	BDL	BDL	BDL	BDL

BDL Below laboratory detection limit

VOCs Volatile Organic Compounds

# # Detected value

**TABLE 4 - Groundwater Analytical Results Summary**

Former Internal Revenue Service Property  
 200 West Fourth Street, Covington, KY  
 (results in µg/L)

Well / Sample ID	Location/REC	Sampling Date	VOCs		
			Tetrachloroethene (PCE)	Trichloroethene (TCE)	Other VOCs
MW-12	Electro Plating	7/23/20	<b>190</b>	<b>11</b>	BDL
		12/7/20	<b>110</b>	<b>7.3</b>	BDL
TMW-1	Southern Delineation	12/7/20	<5.0	<5.0	BDL
TMW-2	Eastern Delineation	12/7/20	<b>28</b>	<5.0	BDL
TMW-3	Northern Delineation	12/7/20	<5.0	<5.0	BDL
Regional Screening Levels (tap water) <sup>1</sup>			11	0.49	

**BOLD** Above MCLs or RSLs

BDL: Below laboratory detection limit

VOCs: Volatile Organic Compounds

1 - Effective May 2020

## **Attachment A**

### **Air Sampling Data**



## Sub-Slab Vapor Sampling Data Sheet

Site Name:	Former Internal Revenue Service Property		Date:	10/28/2020	
Site Address:	200 W 4th St., Covington KY		Project Number:	24EN100753	
Sub-Slab Vapor Point ID#:	SV-10				
Summa Canister ID #:	109984		Regulator ID #	109209	
Canister Pressure: Initial	30	(psig/inHg)	Regulator Draw	8	(calibrated hours)
Canister Pressure: Final	4	(psig/inHg)	Sub-Slab Port Installed (D/T):	10/27/2020	
Sampling Start Time:	7:30		Sub-Slab Thickness (inches):	8	
Sampling End Time:	16:40		Sub-Slab Port	Vapor Pin	
Laboratory Analytical Method:	TO-15		Sub-Slab Port Sealed and Leak Checked:	Y	
Laboratory Used:	ALS Environmental		Sub-Slab Port Install Notes:	Installed Vapor Pin day prior to sampling, water dammed overnight, no drop in hydrostatic level, O2 tested as well.	
Sample Delivery Date & Time:	10/29/20 @ 09:30				
Field Screening Info:		Field Screening Info:		Field Screening Info:	
PID (ppm)	0.00	PID (ppm)	0.00	PID (ppm)	0.00
% O <sub>2</sub>	18.5	% O <sub>2</sub>	18.5	% O <sub>2</sub>	18.5
% LEL	0.00	% LEL	0.00	% LEL	0.00
CO	0.00	CO	0.00	CO	0.00
H <sub>2</sub> S	0.00	H <sub>2</sub> S	0.00	H <sub>2</sub> S	0.00
Average Meteorological Conditions					
Temperature:	50.0				
Avg Wind Direction:	W				
Avg Wind Speed:	7				
Barometric Pressure:	29.14 in				
Avg Humidity	90%				
Observations:	IA-1	Canister ID	119414	Regulator ID	19710
	Start time	7:30	End Time	16:42	
	Initial pressure	30	Final pressure	2	
Sampler:	Michael Baumgartner		Signature:		



## Sub-Slab Vapor Sampling Data Sheet

Site Name:	Former Internal Revenue Service Property		Date:	10/28/2020	
Site Address:	200 W 4th St., Covington KY		Project Number:	24EN100753	
Sub-Slab Vapor Point ID#:	SV-11				
Summa Canister ID #:	109986		Regulator ID #	109129	
Canister Pressure: Initial	30	(psig/inHg)	Regulator Draw	8	(calibrated hours)
Canister Pressure: Final	6	(psig/inHg)	Sub-Slab Port Installed (D/T):	10/27/2020	
Sampling Start Time:	7:46		Sub-Slab Thickness (inches):	8	
Sampling End Time:	15:30		Sub-Slab Port	Vapor Pin	
Laboratory Analytical Method:	TO-15		Sub-Slab Port Sealed and Leak Checked:	Y	
Laboratory Used:	ALS Environmental		Sub-Slab Port Install Notes:	Installed Vapor Pin day prior to sampling, water dammed overnight, no drop in hydrostatic level, O2 tested as well.	
Sample Delivery Date & Time:	10/29/20 @ 09:30				
Field Screening Info:		Field Screening Info:		Field Screening Info:	
PID (ppm)	0.00	PID (ppm)	0.00	PID (ppm)	0.00
% O <sub>2</sub>	18.4	% O <sub>2</sub>	18.3	% O <sub>2</sub>	18.3
% LEL	0.00	% LEL	0.00	% LEL	0.00
CO	0.00	CO	0.00	CO	0.00
H <sub>2</sub> S	0.00	H <sub>2</sub> S	0.00	H <sub>2</sub> S	0.00
Average Meteorological Conditions					
Temperature:	50.0				
Avg Wind Direction:	W				
Avg Wind Speed:	7				
Barometric Pressure:	29.14 in				
Avg Humidity	90%				
Observations:	IA-2	Canister ID	119818	Regulator ID	109473
	Start Time	7:46	End Time	15:30	
	Initial Pressure	30	Final Pressure	6	
Sampler:	Michael Baumgartner		Signature:		



## Sub-Slab Vapor Sampling Data Sheet

Site Name:	Former Internal Revenue Service Property		Date:	10/28/2020	
Site Address:	200 W 4th St., Covington KY		Project Number:	24EN100753	
Sub-Slab Vapor Point ID#:	SV-12				
Summa Canister ID #:	101794		Regulator ID #	119046	
Canister Pressure: Initial	30	(psig/inHg)	Regulator Draw	8	(calibrated hours)
Canister Pressure: Final	5	(psig/inHg)	Sub-Slab Port Installed (D/T):	10/27/2020	
Sampling Start Time:	7:53		Sub-Slab Thickness (inches):	8	
Sampling End Time:	15:42		Sub-Slab Port	Vapor Pin	
Laboratory Analytical Method:	TO-15		Sub-Slab Port Sealed and Leak Checked:	Y	
Laboratory Used:	ALS Environmental		Sub-Slab Port Install Notes:	Installed Vapor Pin day prior to sampling, water dammed overnight, no drop in hydrostatic level, O2 tested as well.	
Sample Delivery Date & Time:	10/29/20 @ 09:30				
Field Screening Info:		Field Screening Info:		Field Screening Info:	
PID (ppm)	0.00	PID (ppm)	0.00	PID (ppm)	0.00
% O <sub>2</sub>	17.2	% O <sub>2</sub>	17.2	% O <sub>2</sub>	17.2
% LEL	0.00	% LEL	0.00	% LEL	0.00
CO	0.00	CO	0.00	CO	0.00
H <sub>2</sub> S	0.00	H <sub>2</sub> S	0.00	H <sub>2</sub> S	0.00
Average Meteorological Conditions					
Temperature:	50.0				
Avg Wind Direction:	W				
Avg Wind Speed:	7				
Barometric Pressure:	29.14 in				
Avg Humidity	90%				
Observations:	IA-3	Canister ID	109142	Regulator ID	109468
	Start Time	7:53	End Time	15:42	
	Initial Pressure	28	Final Pressure	6	
Sampler:	Michael Baumgartner			Signature:	



## Sub-Slab Vapor Sampling Data Sheet

Site Name:	Former Internal Revenue Service Property		Date:	10/28/2020	
Site Address:	200 W 4th St., Covington KY		Project Number:	24EN100753	
Sub-Slab Vapor Point ID#:	SV-13				
Summa Canister ID #:	109966		Regulator ID #	119040	
Canister Pressure: Initial	30	(psig/inHg)	Regulator Draw	8	(calibrated hours)
Canister Pressure: Final	6	(psig/inHg)	Sub-Slab Port Installed (D/T):	10/27/2020	
Sampling Start Time:	8:02		Sub-Slab Thickness (inches):	8	
Sampling End Time:	15:52		Sub-Slab Port	Vapor Pin	
Laboratory Analytical Method:	TO-15		Sub-Slab Port Sealed and Leak Checked:	Y	
Laboratory Used:	ALS Environmental		Sub-Slab Port Install Notes:	Installed Vapor Pin day prior to sampling, water dammed overnight, no drop in hydrostatic level, O2 tested as well.	
Sample Delivery Date & Time:	10/29/20 @ 09:30				
Field Screening Info:		Field Screening Info:		Field Screening Info:	
PID (ppm)	0.00	PID (ppm)	0.00	PID (ppm)	0.00
% O <sub>2</sub>	15.4	% O <sub>2</sub>	15.4	% O <sub>2</sub>	15.4
% LEL	0.00	% LEL	0.00	% LEL	0.00
CO	0.00	CO	0.00	CO	0.00
H <sub>2</sub> S	0.00	H <sub>2</sub> S	0.00	H <sub>2</sub> S	0.00
Average Meteorological Conditions					
Temperature:	50.0				
Avg Wind Direction:	W				
Avg Wind Speed:	7				
Barometric Pressure:	29.14 in				
Avg Humidity	90%				
Observations:	IA-4	Canister ID	109157	Regulator ID	119617
	Start Time	8:02	End Time	15:54	
	Initial Pressure	25	Final Pressure	3	
Sampler:	Michael Baumgartner		Signature:		



## Sub-Slab Vapor Sampling Data Sheet

Site Name:	Former Internal Revenue Service Property		Date:	10/28/2020	
Site Address:	200 W 4th St., Covington KY		Project Number:	24EN100753	
Sub-Slab Vapor Point ID#:	SV-14				
Summa Canister ID #:	109985		Regulator ID #	107052	
Canister Pressure: Initial	25	(psig/inHg)	Regulator Draw	8	(calibrated hours)
Canister Pressure: Final	8	(psig/inHg)	Sub-Slab Port Installed (D/T):	10/27/2020	
Sampling Start Time:	8:10		Sub-Slab Thickness (inches):	8	
Sampling End Time:	16:02		Sub-Slab Port	Vapor Pin	
Laboratory Analytical Method:	TO-15		Sub-Slab Port Sealed and Leak Checked:	Y	
Laboratory Used:	ALS Environmental		Sub-Slab Port Install Notes:	Installed Vapor Pin day prior to sampling, water dammed overnight, no drop in hydrostatic level, O2 tested as well.	
Sample Delivery Date & Time:	10/29/20 @ 09:30				
Field Screening Info:		Field Screening Info:		Field Screening Info:	
PID (ppm)	0.00	PID (ppm)	0.00	PID (ppm)	0.00
% O <sub>2</sub>	14.8	% O <sub>2</sub>	14.6	% O <sub>2</sub>	14.6
% LEL	0.00	% LEL	0.00	% LEL	0.00
CO	0.00	CO	0.00	CO	0.00
H <sub>2</sub> S	0.00	H <sub>2</sub> S	0.00	H <sub>2</sub> S	0.00
Average Meteorological Conditions					
Temperature:	50.0				
Avg Wind Direction:	W				
Avg Wind Speed:	7				
Barometric Pressure:	29.14 in				
Avg Humidity	90%				
Observations:	IA-5	Canister ID	109153	Regulator ID	108787
	Start Time	8:10	End Time	16:00	
	Initial Pressure	29	Final Pressure	4	
Sampler:	Michael Baumgartner			Signature:	



## Sub-Slab Vapor Sampling Data Sheet

Site Name:	Former Internal Revenue Service Property		Date:	10/28/2020	
Site Address:	200 W 4th St., Covington KY		Project Number:	24EN100753	
Sub-Slab Vapor Point ID#:	SV-15				
Summa Canister ID #:	109968		Regulator ID #	119608	
Canister Pressure: Initial	30	(psig/inHg)	Regulator Draw	8	(calibrated hours)
Canister Pressure: Final	5	(psig/inHg)	Sub-Slab Port Installed (D/T):	10/27/2020	
Sampling Start Time:	8:18		Sub-Slab Thickness (inches):	8	
Sampling End Time:	16:20		Sub-Slab Port	Vapor Pin	
Laboratory Analytical Method:	TO-15		Sub-Slab Port Sealed and Leak Checked:	Y	
Laboratory Used:	ALS Environmental		Sub-Slab Port Install Notes:	Installed Vapor Pin day prior to sampling, water dammed overnight, no drop in hydrostatic level, O2 tested as well.	
Sample Delivery Date & Time:	10/29/20 @ 09:30				
Field Screening Info:		Field Screening Info:		Field Screening Info:	
PID (ppm)	0.00	PID (ppm)	0.00	PID (ppm)	0.00
% O <sub>2</sub>	17.9	% O <sub>2</sub>	17.9	% O <sub>2</sub>	17.9
% LEL	0.00	% LEL	0.00	% LEL	0.00
CO	0.00	CO	0.00	CO	0.00
H <sub>2</sub> S	0.00	H <sub>2</sub> S	0.00	H <sub>2</sub> S	0.00
Average Meteorological Conditions					
Temperature:	50.0				
Avg Wind Direction:	W				
Avg Wind Speed:	7				
Barometric Pressure:	29.14 in				
Avg Humidity	90%				
Observations:	IA-6	Canister ID	109976	Regulator ID	119007
	Start Time	8:18	End Time	16:20	
	Initial Pressure	30	Final Pressure	5	
Sampler:	Michael Baumgartner			Signature:	



## Ambient Air Sampling Data Sheet

Site Name:	Former Internal Revenue Service Property	Date:	10/28/2020
Site Address:	200 W 4th St., Covington KY	Project Number:	24EN100753
Sub-Slab Vapor Point ID#:	AA-I		
Summa Canister ID #:	109983	Regulator ID #	119709
Canister Pressure: Initial	29 (psig/inHg)	Regulator Draw	8 (calibrated hours)
Canister Pressure: Final	7 (psig/inHg)	Sub-Slab Port Installed (D/T):	N/A
Sampling Start Time:	7:50	Sub-Slab Thickness (inches):	N/A
Sampling End Time:	15:47	Sub-Slab Port	N/A
Laboratory Analytical Method:	TO-15	Sub-Slab Port Sealed and Leak Checked:	N/A
Laboratory Used:	ALS Environmental	Sub-Slab Port Install Notes:	N/A
Sample Delivery Date & Time:	10/29/20 @ 09:30		
Field Screening Info:	Field Screening Info:	Field Screening Info:	Field Screening Info:
PID (ppm)	PID (ppm)	PID (ppm)	PID (ppm)
% O <sub>2</sub>	% O <sub>2</sub>	% O <sub>2</sub>	% O <sub>2</sub>
% LEL	% LEL	% LEL	% LEL
CO	CO	CO	CO
H <sub>2</sub> S	H <sub>2</sub> S	H <sub>2</sub> S	H <sub>2</sub> S
Average Meteorological Conditions			
Temperature:	50.0		
Avg Wind Direction:	W		
Avg Wind Speed:	7		
Barometric Pressure:	29.14 in		
Avg Humidity	90%		
Observations:			
Sampler:	Michael Baumgartner	Signature:	



## Ambient Air Sampling Data Sheet

Site Name:	Former Internal Revenue Service Property	Date:	10/28/2020
Site Address:	200 W 4th St., Covington KY	Project Number:	24EN100753
Sub-Slab Vapor Point ID#:	AA-O		
Summa Canister ID #:	109997	Regulator ID #	119609
Canister Pressure: Initial	30 (psig/inHg)	Regulator Draw	8 (calibrated hours)
Canister Pressure: Final	6 (psig/inHg)	Sub-Slab Port Installed (D/T):	N/A
Sampling Start Time:	8:25	Sub-Slab Thickness (inches):	N/A
Sampling End Time:	16:30	Sub-Slab Port	N/A
Laboratory Analytical Method:	TO-15	Sub-Slab Port Sealed and Leak Checked:	N/A
Laboratory Used:	ALS Environmental	Sub-Slab Port Install Notes:	N/A
Sample Delivery Date & Time:	10/29/20 @ 09:30		
Field Screening Info:	Field Screening Info:	Field Screening Info:	Field Screening Info:
PID (ppm)	PID (ppm)	PID (ppm)	PID (ppm)
% O <sub>2</sub>	% O <sub>2</sub>	% O <sub>2</sub>	% O <sub>2</sub>
% LEL	% LEL	% LEL	% LEL
CO	CO	CO	CO
H <sub>2</sub> S	H <sub>2</sub> S	H <sub>2</sub> S	H <sub>2</sub> S
Average Meteorological Conditions			
Temperature:	50.0		
Avg Wind Direction:	W		
Avg Wind Speed:	7		
Barometric Pressure:	29.14 in		
Avg Humidity	90%		
Observations:			
Sampler:	Michael Baumgartner	Signature:	

## **Attachment B**

### **Boring/Temporary Well Logs**

CLIENT Graydon Head & Ritchey BORING # SB-19  
 PROJECT NAME Former IRS Building JOB # 241EN00753  
 PROJECT ADDRESS 100 W 4th Street DRAWN BY M. Baumgartner  
 PROJECT LOCATION Covington, KY APPROVED BY M. Luessen

**DRILLING and SAMPLING INFORMATION**

Date Started 12/7/2020 Hammer Wt. NA lbs.  
 Date Completed 12/7/2020 Hammer Drop \_\_\_\_\_ in.  
 Drill Foreman EnviroCore Spoon Sampler OD \_\_\_\_\_ in.  
 Geologist M. Baumgartner Rock Core Dia. \_\_\_\_\_ in.  
 Boring Method HA/HP Shelby Tube OD \_\_\_\_\_ in.

SOIL DESCRIPTION				Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics Recovery %	Groundwater	Moisture Content	Standard Penetration Test N, Blows/6 inches	Total Photoionizable Vapors (ppm)	Remarks
SURFACE ELEVATION													
ASPHALT				0.5		0-2	HA	100		D	NA	1.4	
FILL Crushed Aggregate Base				1.0			HA	100		M	NA	1.6	
CLAY (CL) silty with fine sand, stiff, moist, brown					2-4		HA	100		M	NA	2.4	
					4-6		DT	100		M	NA	3.8	
					6-8		DT	50		M	NA	0.5	
					8-10		DT	50		M	NA	1.9	
					10		DT	8		M	NA	1.7	
					10-12		DT	8		M	NA	1.7	
Low Recovery 12-16'				12.0		12-14	DT	92		M	NA	1.8	* Sample submitted for analysis
					14-16		DT	92		M	NA	1.2	
... CLAY as above, medium stiff, increased moisture					16.0		DT	83	▽	W	NA	1.3	
					16-18*		DT	83		W	NA	0.9	
SILT (ML) with fine sand, medium stiff, very moist, gray					18-20		DT						
					20.0		DT						
					20-22		DT						
					22-24		DT						
... SILT as above, WET, gray with brown mottling				24.0									
Boring terminated at 24'													
Temporary Monitoring Well (TMW-1) set with 10' of 0.010 slot screen.													

Sample Type      Moisture Content  
 SS - Driven Split Spoon      D = Dry  
 ST - Pressed Shelby Tube      M = Moist  
 HA - Hand Auger      W = Wet  
 RC - Rock Core  
 DT - Dual Tube  
 CT - Continuous Tube  
 MC - Macrocore

Noted on Drilling Tools \_\_\_\_\_ ft.  
 Water in Sample \_\_\_\_\_ ft.  
 At Completion (TMW-1) **20.0** ft.  
 After \_\_\_\_\_ hours \_\_\_\_\_ ft.  
 After \_\_\_\_\_ hours \_\_\_\_\_ ft.  
 Cave Depth \_\_\_\_\_ ft.

Boring Method  
 HSA - Hollow Stem Augers  
 CFA - Continuous Flight Augers  
 DC - Driving Casing  
 MD - Mud Drilling  
 HA - Hand Auger  
 DP - Direct Push

CLIENT Graydon Head & Ritchey BORING # SB-20  
 PROJECT NAME Former IRS Building JOB # 241EN00753  
 PROJECT ADDRESS 100 W 4th Street DRAWN BY M. Baumgartner  
 PROJECT LOCATION Covington, KY APPROVED BY M. Luessen

**DRILLING and SAMPLING INFORMATION**

Date Started 12/7/2020 Hammer Wt. NA lbs.  
 Date Completed 12/7/2020 Hammer Drop \_\_\_\_\_ in.  
 Drill Foreman EnviroCore Spoon Sampler OD \_\_\_\_\_ in.  
 Geologist M. Baumgartner Rock Core Dia. \_\_\_\_\_ in.  
 Boring Method HA/HP Shelby Tube OD \_\_\_\_\_ in.

SOIL DESCRIPTION				Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics Recovery Graphics	Recovery %	Groundwater	Moisture Content	Standard Penetration Test N, Blows/6 inches	Total Photoionizable Vapors (ppm)	Remarks
SURFACE ELEVATION														
ASPHALT				0.5		0-2	HA		100		D	NA	0.9	
FILL Crushed Aggregate Base				1.0			HA		100		M	NA	0.9	
CLAY (CL) silty with fine sand, stiff, moist, brown					2-4		HA		100		M	NA	1.6	
					4-6		HA		92		M	NA	3.2	
					6-8		DT		83		M	NA	1.6	
					8-10		DT		83		M	NA	1.8	
					10		DT		92		M	NA	1.8	
					10-12		DT		92		M	NA	1.9	
					12.0		DT		100		M	NA	2.2	* Sample submitted for analysis
SILT (ML) with fine sand, medium stiff, very moist, brown					14-16		DT		92		M	NA	2.0	
					16-18*		DT		100		M	NA	1.3	
					18-20		DT		100		M	NA	1.0	
					20.0		DT		92	▽	W	NA		
					20-22		DT		92		W	NA		
					22-24		DT		92		W	NA		
Boring terminated at 24'														
Temporary Monitoring Well (TMW-2) set with 10' of 0.010 slot screen.														

Sample Type	Moisture Content	Depth to Groundwater	Boring Method
SS - Driven Split Spoon	D = Dry	Noted on Drilling Tools	HSA - Hollow Stem Augers
ST - Pressed Shelby Tube	M = Moist	○ Water in Sample	CFA - Continuous Flight Augers
HA - Hand Auger	W = Wet	▽ At Completion (TMW-2) <b>20.0</b> ft.	DC - Driving Casing
RC - Rock Core		▼ After _____ hours _____ ft.	MD - Mud Drilling
DT - Dual Tube		▼ After _____ hours _____ ft.	HA - Hand Auger
CT - Continuous Tube		▼ After _____ hours _____ ft.	DP - Direct Push
MC - Macrocore		▀ Cave Depth _____ ft.	

Noted on Drilling Tools \_\_\_\_\_ ft.  
 ○ Water in Sample \_\_\_\_\_ ft.  
 ▽ At Completion (TMW-2) **20.0** ft.  
 ▼ After \_\_\_\_\_ hours \_\_\_\_\_ ft.  
 ▼ After \_\_\_\_\_ hours \_\_\_\_\_ ft.  
 ▀ Cave Depth \_\_\_\_\_ ft.

CLIENT Graydon Head & Ritchey BORING # SB-21  
 PROJECT NAME Former IRS Building JOB # 241EN00753  
 PROJECT ADDRESS 100 W 4th Street DRAWN BY M. Baumgartner  
 PROJECT LOCATION Covington, KY APPROVED BY M. Luessen

**DRILLING and SAMPLING INFORMATION**

Date Started 12/7/2020 Hammer Wt. NA lbs.  
 Date Completed 12/7/2020 Hammer Drop \_\_\_\_\_ in.  
 Drill Foreman EnviroCore Spoon Sampler OD \_\_\_\_\_ in.  
 Geologist M. Baumgartner Rock Core Dia. \_\_\_\_\_ in.  
 Boring Method HA/HP Shelby Tube OD \_\_\_\_\_ in.

SOIL DESCRIPTION		Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics Recovery Graphics	Recovery %	Groundwater	Moisture Content	Standard Penetration Test N, Blows/6 inches	Total Photoionizable Vapors (ppm)	Remarks
SURFACE ELEVATION												
ASPHALT		0.5		0-2	HA		100		D	NA	0.9	
FILL Crushed Aggregate Base		1.0			HA		100		M	NA	1.1	
CLAY (CL) silty with fine sand, stiff, moist, brown				2-4	HA		100		M	NA	1.5	
				4-6	HA		100		M	NA	1.6	
				6-8	DT		83		M	NA	1.4	
				8-10	DT		92		M	NA	1.5	
				10-12	DT		92		M	NA	1.8	
				12-14	DT		83		M	NA	1.4	
				14-16	DT		83		M	NA	1.7	* Sample submitted for analysis
				16-18*	DT		92		M	NA	1.7	
SILT (ML) with fine sand, medium stiff, very moist, brown		16.0		18-20	DT		92		M	NA	1.7	
				20-22	DT		100		M	NA	1.3	
				22-24	DT		100	▽	M	NA	1.4	
				24-26	DT		83		W	NA	1.4	
				26-28	DT		83		W	NA	1.4	
Boring terminated at 28'		24.0										
Temporary Monitoring Well (TMW-3) set with 10' of 0.010 slot screen.		28.0										

Sample Type	Moisture Content
SS - Driven Split Spoon	D = Dry
ST - Pressed Shelby Tube	M = Moist
HA - Hand Auger	W = Wet
RC - Rock Core	
DT - Dual Tube	
CT - Continuous Tube	
MC - Macrocore	

● Noted on Drilling Tools	ft.
○ Water in Sample	ft.
▽ At Completion (TMW-3)	22.0 ft.
▼ After _____ hours	ft.
▼ After _____ hours	ft.
▣ Cave Depth	ft.

HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
DC - Driving Casing
MD - Mud Drilling
HA - Hand Auger
DP - Direct Push

## **Attachment C**

### **Laboratory Report - Air**



20-Nov-2020

Mike Luessen  
ATC Group Services LLC  
11121 Canal Road  
Cincinnati, OH 45241-1861

Re: **FORMER IRS PROPERTY COVINGTON, KY; 241EN00715**      Work Order: **20101133**

Dear Mike,

ALS Environmental received 15 samples on 29-Oct-2020 09:47 AM for the analyses presented in the following report.

This is a REVISED REPORT. The Case Narrative provides information discussing the reason for issuing a revised report. The total number of pages in this revision is 75.

If you have any questions regarding these test results, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Rob Nieman".

Electronically approved by: Danielle Strasinger

Rob Nieman  
Project Manager

### Report of Laboratory Analysis

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

**Client:** ATC Group Services LLC  
**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN00  
**Work Order:** 20101133

**Work Order Sample Summary**

<b>Lab Samp ID</b>	<b>Client Sample ID</b>	<b>Matrix</b>	<b>Tag Number</b>	<b>Collection Date</b>	<b>Date Received</b>	<b>Hold</b>
20101133-01	SV-10	Air		10/28/2020	10/29/2020 09:47	<input type="checkbox"/>
20101133-02	IA-1	Air		10/28/2020	10/29/2020 09:47	<input type="checkbox"/>
20101133-03	SV-11	Air		10/28/2020	10/29/2020 09:47	<input type="checkbox"/>
20101133-04	IA-2	Air		10/28/2020	10/29/2020 09:47	<input type="checkbox"/>
20101133-05	SV-12	Air		10/28/2020	10/29/2020 09:47	<input type="checkbox"/>
20101133-06	IA-3	Air		10/28/2020	10/29/2020 09:47	<input type="checkbox"/>
20101133-07	SV-13	Air		10/28/2020	10/29/2020 09:47	<input type="checkbox"/>
20101133-08	IA-4	Air		10/28/2020	10/29/2020 09:47	<input type="checkbox"/>
20101133-09	SV-14	Air		10/28/2020	10/29/2020 09:47	<input type="checkbox"/>
20101133-10	IA-5	Air		10/28/2020	10/29/2020 09:47	<input type="checkbox"/>
20101133-11	SV-15	Air		10/28/2020	10/29/2020 09:47	<input type="checkbox"/>
20101133-12	IA-6	Air		10/28/2020	10/29/2020 09:47	<input type="checkbox"/>
20101133-13	AA-I	Air		10/28/2020	10/29/2020 09:47	<input type="checkbox"/>
20101133-14	AA-0	Air		10/28/2020	10/29/2020 09:47	<input type="checkbox"/>
20101133-15	DUPLICATE	Air		10/28/2020	10/29/2020 09:47	<input type="checkbox"/>

**Client:** ATC Group Services LLC  
**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN00  
**Work Order:** 20101133

**Case Narrative**

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Results relate only to the items tested and are not blank corrected unless indicated.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

Report revised 11/2/20 to have benzene, ethylbenzene, naphthalene & TCE reported to the MDL per client request.

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** SV-10

Lab ID: 20101133-01

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>TO-15 BY GC/MS</b>			<b>ETO-15</b>			<b>Analyst: MRJ</b>
1,1,1-Trichloroethane	ND		0.50	ppbv	1	11/9/2020 03:18 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	11/9/2020 03:18 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	11/9/2020 03:18 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	11/9/2020 03:18 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 03:18 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	11/9/2020 03:18 PM
<b>1,2,4-Trimethylbenzene</b>	<b>0.59</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 03:18 PM
1,2-Dibromoethane	ND		0.20	ppbv	1	11/9/2020 03:18 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	11/9/2020 03:18 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	11/9/2020 03:18 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	11/9/2020 03:18 PM
1,3,5-Trimethylbenzene	ND		0.50	ppbv	1	11/9/2020 03:18 PM
1,3-Butadiene	ND		0.50	ppbv	1	11/9/2020 03:18 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	1	11/9/2020 03:18 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	1	11/9/2020 03:18 PM
1,4-Dioxane	ND		1.0	ppbv	1	11/9/2020 03:18 PM
<b>2-Butanone</b>	<b>1.9</b>		<b>1.0</b>	<b>ppbv</b>	1	11/9/2020 03:18 PM
2-Hexanone	ND		1.0	ppbv	1	11/9/2020 03:18 PM
<b>2-Propanol</b>	<b>5.9</b>		<b>1.0</b>	<b>ppbv</b>	1	11/9/2020 03:18 PM
4-Ethyltoluene	ND		0.50	ppbv	1	11/9/2020 03:18 PM
<b>4-Methyl-2-pentanone</b>	<b>4.7</b>		<b>1.0</b>	<b>ppbv</b>	1	11/9/2020 03:18 PM
<b>Acetone</b>	<b>25</b>	E	<b>1.0</b>	<b>ppbv</b>	1	11/9/2020 03:18 PM
<b>Benzene</b>	<b>0.72</b>		<b>0.017</b>	<b>ppbv</b>	1	11/9/2020 03:18 PM
Benzyl chloride	ND		1.0	ppbv	1	11/9/2020 03:18 PM
Bromodichloromethane	ND		0.50	ppbv	1	11/9/2020 03:18 PM
Bromoform	ND		0.50	ppbv	1	11/9/2020 03:18 PM
Bromomethane	ND		0.50	ppbv	1	11/9/2020 03:18 PM
Carbon disulfide	ND		0.50	ppbv	1	11/9/2020 03:18 PM
Carbon tetrachloride	ND		0.50	ppbv	1	11/9/2020 03:18 PM
Chlorobenzene	ND		0.50	ppbv	1	11/9/2020 03:18 PM
Chloroethane	ND		0.50	ppbv	1	11/9/2020 03:18 PM
Chloroform	ND		0.20	ppbv	1	11/9/2020 03:18 PM
Chloromethane	ND		0.50	ppbv	1	11/9/2020 03:18 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 03:18 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	11/9/2020 03:18 PM
Cumene	ND		0.50	ppbv	1	11/9/2020 03:18 PM
<b>Cyclohexane</b>	<b>0.54</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 03:18 PM
Dibromochloromethane	ND		0.50	ppbv	1	11/9/2020 03:18 PM
Dichlorodifluoromethane	ND		0.50	ppbv	1	11/9/2020 03:18 PM

### Note:

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** SV-10

Lab ID: 20101133-01

**Collection Date:** 10/28/2020

## Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	11/9/2020 03:18 PM
<b>Ethylbenzene</b>	<b>1.3</b>		<b>0.070</b>	<b>ppbv</b>	1	11/9/2020 03:18 PM
Freon 113	ND		0.50	ppbv	1	11/9/2020 03:18 PM
Freon 114	ND		0.50	ppbv	1	11/9/2020 03:18 PM
<b>Heptane</b>	<b>1.4</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 03:18 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	11/9/2020 03:18 PM
<b>Hexane</b>	<b>1.4</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 03:18 PM
<b>m,p-Xylene</b>	<b>3.8</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 03:18 PM
Methylene chloride	ND		2.0	ppbv	1	11/9/2020 03:18 PM
MTBE	ND		0.50	ppbv	1	11/9/2020 03:18 PM
<b>Naphthalene</b>	<b>0.20</b>	B	<b>0.10</b>	<b>ppbv</b>	1	11/9/2020 03:18 PM
<b>o-Xylene</b>	<b>1.6</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 03:18 PM
Propene	ND		0.50	ppbv	1	11/9/2020 03:18 PM
Styrene	ND		0.50	ppbv	1	11/9/2020 03:18 PM
<b>Tetrachloroethene</b>	<b>0.55</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 03:18 PM
Tetrahydrofuran	ND		0.50	ppbv	1	11/9/2020 03:18 PM
<b>Toluene</b>	<b>2.1</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 03:18 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 03:18 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	11/9/2020 03:18 PM
<b>Trichloroethene</b>	<b>0.080</b>		<b>0.062</b>	<b>ppbv</b>	1	11/9/2020 03:18 PM
Trichlorofluoromethane	ND		0.50	ppbv	1	11/9/2020 03:18 PM
Vinyl acetate	ND		0.50	ppbv	1	11/9/2020 03:18 PM
Vinyl chloride	ND		0.50	ppbv	1	11/9/2020 03:18 PM
Surr: Bromofluorobenzene	102		60-140	%REC	1	11/9/2020 03:18 PM
<b>TO-15 BY GC/MS</b>			<b>ETO-15</b>			<b>Analyst: MRJ</b>
1,1,1-Trichloroethane	ND		2.73	µg/m3	1	11/9/2020 03:18 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	11/9/2020 03:18 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	11/9/2020 03:18 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	11/9/2020 03:18 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 03:18 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	11/9/2020 03:18 PM
<b>1,2,4-Trimethylbenzene</b>	<b>2.90</b>		<b>2.46</b>	<b>µg/m3</b>	1	11/9/2020 03:18 PM
1,2-Dibromoethane	ND		1.54	µg/m3	1	11/9/2020 03:18 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	11/9/2020 03:18 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	11/9/2020 03:18 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	11/9/2020 03:18 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m3	1	11/9/2020 03:18 PM
1,3-Butadiene	ND		1.11	µg/m3	1	11/9/2020 03:18 PM
1,3-Dichlorobenzene	ND		6.01	µg/m3	1	11/9/2020 03:18 PM
1,4-Dichlorobenzene	ND		6.01	µg/m3	1	11/9/2020 03:18 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** SV-10

Lab ID: 20101133-01

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	11/9/2020 03:18 PM
<b>2-Butanone</b>	<b>5.57</b>		<b>2.95</b>	<b>µg/m3</b>	1	11/9/2020 03:18 PM
2-Hexanone	ND		4.10	µg/m3	1	11/9/2020 03:18 PM
<b>2-Propanol</b>	<b>14.6</b>		<b>2.46</b>	<b>µg/m3</b>	1	11/9/2020 03:18 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	11/9/2020 03:18 PM
<b>4-Methyl-2-pentanone</b>	<b>19.4</b>		<b>4.10</b>	<b>µg/m3</b>	1	11/9/2020 03:18 PM
<b>Acetone</b>	<b>59.8</b>	E	<b>2.38</b>	<b>µg/m3</b>	1	11/9/2020 03:18 PM
<b>Benzene</b>	<b>2.30</b>		<b>0.0540</b>	<b>µg/m3</b>	1	11/9/2020 03:18 PM
Benzyl chloride	ND		5.18	µg/m3	1	11/9/2020 03:18 PM
Bromodichloromethane	ND		3.35	µg/m3	1	11/9/2020 03:18 PM
Bromoform	ND		5.17	µg/m3	1	11/9/2020 03:18 PM
Bromomethane	ND		1.94	µg/m3	1	11/9/2020 03:18 PM
Carbon disulfide	ND		1.56	µg/m3	1	11/9/2020 03:18 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	11/9/2020 03:18 PM
Chlorobenzene	ND		2.30	µg/m3	1	11/9/2020 03:18 PM
Chloroethane	ND		1.32	µg/m3	1	11/9/2020 03:18 PM
Chloroform	ND		0.976	µg/m3	1	11/9/2020 03:18 PM
Chloromethane	ND		1.03	µg/m3	1	11/9/2020 03:18 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 03:18 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/9/2020 03:18 PM
Cumene	ND		2.46	µg/m3	1	11/9/2020 03:18 PM
<b>Cyclohexane</b>	<b>1.86</b>		<b>1.72</b>	<b>µg/m3</b>	1	11/9/2020 03:18 PM
Dibromochloromethane	ND		4.26	µg/m3	1	11/9/2020 03:18 PM
Dichlorodifluoromethane	ND		2.47	µg/m3	1	11/9/2020 03:18 PM
Ethyl acetate	ND		1.80	µg/m3	1	11/9/2020 03:18 PM
<b>Ethylbenzene</b>	<b>5.82</b>		<b>0.300</b>	<b>µg/m3</b>	1	11/9/2020 03:18 PM
Freon 113	ND		3.83	µg/m3	1	11/9/2020 03:18 PM
Freon 114	ND		3.50	µg/m3	1	11/9/2020 03:18 PM
<b>Heptane</b>	<b>5.70</b>		<b>2.05</b>	<b>µg/m3</b>	1	11/9/2020 03:18 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	11/9/2020 03:18 PM
<b>Hexane</b>	<b>5.00</b>		<b>1.76</b>	<b>µg/m3</b>	1	11/9/2020 03:18 PM
<b>m,p-Xylene</b>	<b>16.6</b>		<b>2.17</b>	<b>µg/m3</b>	1	11/9/2020 03:18 PM
Methylene chloride	ND		7.00	µg/m3	1	11/9/2020 03:18 PM
MTBE	ND		1.80	µg/m3	1	11/9/2020 03:18 PM
<b>Naphthalene</b>	<b>1.05</b>		<b>0.540</b>	<b>µg/m3</b>	1	11/9/2020 03:18 PM
<b>o-Xylene</b>	<b>6.90</b>		<b>2.17</b>	<b>µg/m3</b>	1	11/9/2020 03:18 PM
Propene	ND		0.861	µg/m3	1	11/9/2020 03:18 PM
Styrene	ND		2.13	µg/m3	1	11/9/2020 03:18 PM
<b>Tetrachloroethene</b>	<b>3.73</b>		<b>3.39</b>	<b>µg/m3</b>	1	11/9/2020 03:18 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	11/9/2020 03:18 PM

### Note:

ALS Environmental

Date: 20-Nov-20

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** SV-10

Lab ID: 20101133-01

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	8.03		1.88	µg/m3	1	11/9/2020 03:18 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 03:18 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/9/2020 03:18 PM
Trichloroethene	0.430		0.330	µg/m3	1	11/9/2020 03:18 PM
Trichlorofluoromethane	ND		2.81	µg/m3	1	11/9/2020 03:18 PM
Vinyl acetate	ND		1.76	µg/m3	1	11/9/2020 03:18 PM
Vinyl chloride	ND		1.28	µg/m3	1	11/9/2020 03:18 PM
<i>Surr:</i> Bromofluorobenzene	102		60-140	%REC	1	11/9/2020 03:18 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** IA-1

Lab ID: 20101133-02

**Collection Date:** 10/28/2020

## Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>TO-15 BY GC/MS</b>			<b>ETO-15</b>			Analyst: <b>MRJ</b>
1,1,1-Trichloroethane	ND		0.50	ppbv	1	11/9/2020 04:02 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	11/9/2020 04:02 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	11/9/2020 04:02 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	11/9/2020 04:02 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 04:02 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	11/9/2020 04:02 PM
1,2,4-Trimethylbenzene	ND		0.50	ppbv	1	11/9/2020 04:02 PM
1,2-Dibromoethane	ND		0.20	ppbv	1	11/9/2020 04:02 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	11/9/2020 04:02 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	11/9/2020 04:02 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	11/9/2020 04:02 PM
1,3,5-Trimethylbenzene	ND		0.50	ppbv	1	11/9/2020 04:02 PM
1,3-Butadiene	ND		0.50	ppbv	1	11/9/2020 04:02 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	1	11/9/2020 04:02 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	1	11/9/2020 04:02 PM
1,4-Dioxane	ND		1.0	ppbv	1	11/9/2020 04:02 PM
2-Butanone	ND		1.0	ppbv	1	11/9/2020 04:02 PM
2-Hexanone	ND		1.0	ppbv	1	11/9/2020 04:02 PM
<b>2-Propanol</b>	<b>3.2</b>		<b>1.0</b>	<b>ppbv</b>	1	11/9/2020 04:02 PM
4-Ethyltoluene	ND		0.50	ppbv	1	11/9/2020 04:02 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	11/9/2020 04:02 PM
<b>Acetone</b>	<b>14</b>		<b>1.0</b>	<b>ppbv</b>	1	11/9/2020 04:02 PM
<b>Benzene</b>	<b>0.29</b>		<b>0.017</b>	<b>ppbv</b>	1	11/9/2020 04:02 PM
Benzyl chloride	ND		1.0	ppbv	1	11/9/2020 04:02 PM
Bromodichloromethane	ND		0.50	ppbv	1	11/9/2020 04:02 PM
Bromoform	ND		0.50	ppbv	1	11/9/2020 04:02 PM
Bromomethane	ND		0.50	ppbv	1	11/9/2020 04:02 PM
Carbon disulfide	ND		0.50	ppbv	1	11/9/2020 04:02 PM
Carbon tetrachloride	ND		0.50	ppbv	1	11/9/2020 04:02 PM
Chlorobenzene	ND		0.50	ppbv	1	11/9/2020 04:02 PM
Chloroethane	ND		0.50	ppbv	1	11/9/2020 04:02 PM
Chloroform	ND		0.20	ppbv	1	11/9/2020 04:02 PM
<b>Chloromethane</b>	<b>0.57</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 04:02 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 04:02 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	11/9/2020 04:02 PM
Cumene	ND		0.50	ppbv	1	11/9/2020 04:02 PM
Cyclohexane	ND		0.50	ppbv	1	11/9/2020 04:02 PM
Dibromochloromethane	ND		0.50	ppbv	1	11/9/2020 04:02 PM
Dichlorodifluoromethane	ND		0.50	ppbv	1	11/9/2020 04:02 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** IA-1

Lab ID: 20101133-02

**Collection Date:** 10/28/2020

## Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	11/9/2020 04:02 PM
<b>Ethylbenzene</b>	<b>0.13</b>		<b>0.070</b>	<b>ppbv</b>	1	11/9/2020 04:02 PM
Freon 113	ND		0.50	ppbv	1	11/9/2020 04:02 PM
Freon 114	ND		0.50	ppbv	1	11/9/2020 04:02 PM
Heptane	ND		0.50	ppbv	1	11/9/2020 04:02 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	11/9/2020 04:02 PM
<b>Hexane</b>	<b>0.64</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 04:02 PM
m,p-Xylene	ND		0.50	ppbv	1	11/9/2020 04:02 PM
Methylene chloride	ND		2.0	ppbv	1	11/9/2020 04:02 PM
MTBE	ND		0.50	ppbv	1	11/9/2020 04:02 PM
Naphthalene	ND		0.10	ppbv	1	11/9/2020 04:02 PM
o-Xylene	ND		0.50	ppbv	1	11/9/2020 04:02 PM
Propene	ND		0.50	ppbv	1	11/9/2020 04:02 PM
Styrene	ND		0.50	ppbv	1	11/9/2020 04:02 PM
Tetrachloroethene	ND		0.50	ppbv	1	11/9/2020 04:02 PM
Tetrahydrofuran	ND		0.50	ppbv	1	11/9/2020 04:02 PM
<b>Toluene</b>	<b>0.89</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 04:02 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 04:02 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	11/9/2020 04:02 PM
Trichloroethene	ND		0.062	ppbv	1	11/9/2020 04:02 PM
Trichlorofluoromethane	ND		0.50	ppbv	1	11/9/2020 04:02 PM
Vinyl acetate	ND		0.50	ppbv	1	11/9/2020 04:02 PM
Vinyl chloride	ND		0.50	ppbv	1	11/9/2020 04:02 PM
Surr: Bromofluorobenzene	102		60-140	%REC	1	11/9/2020 04:02 PM
<b>TO-15 BY GC/MS</b>		<b>ETO-15</b>		Analyst: <b>MRJ</b>		
1,1,1-Trichloroethane	ND		2.73	µg/m3	1	11/9/2020 04:02 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	11/9/2020 04:02 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	11/9/2020 04:02 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	11/9/2020 04:02 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 04:02 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	11/9/2020 04:02 PM
1,2,4-Trimethylbenzene	ND		2.46	µg/m3	1	11/9/2020 04:02 PM
1,2-Dibromoethane	ND		1.54	µg/m3	1	11/9/2020 04:02 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	11/9/2020 04:02 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	11/9/2020 04:02 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	11/9/2020 04:02 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m3	1	11/9/2020 04:02 PM
1,3-Butadiene	ND		1.11	µg/m3	1	11/9/2020 04:02 PM
1,3-Dichlorobenzene	ND		6.01	µg/m3	1	11/9/2020 04:02 PM
1,4-Dichlorobenzene	ND		6.01	µg/m3	1	11/9/2020 04:02 PM

### Note:

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** IA-1

Lab ID: 20101133-02

**Collection Date:** 10/28/2020

## Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	11/9/2020 04:02 PM
2-Butanone	ND		2.95	µg/m3	1	11/9/2020 04:02 PM
2-Hexanone	ND		4.10	µg/m3	1	11/9/2020 04:02 PM
<b>2-Propanol</b>	<b>7.91</b>		<b>2.46</b>	<b>µg/m3</b>	1	11/9/2020 04:02 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	11/9/2020 04:02 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	11/9/2020 04:02 PM
<b>Acetone</b>	<b>32.9</b>		<b>2.38</b>	<b>µg/m3</b>	1	11/9/2020 04:02 PM
<b>Benzene</b>	<b>0.926</b>		<b>0.0540</b>	<b>µg/m3</b>	1	11/9/2020 04:02 PM
Benzyl chloride	ND		5.18	µg/m3	1	11/9/2020 04:02 PM
Bromodichloromethane	ND		3.35	µg/m3	1	11/9/2020 04:02 PM
Bromoform	ND		5.17	µg/m3	1	11/9/2020 04:02 PM
Bromomethane	ND		1.94	µg/m3	1	11/9/2020 04:02 PM
Carbon disulfide	ND		1.56	µg/m3	1	11/9/2020 04:02 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	11/9/2020 04:02 PM
Chlorobenzene	ND		2.30	µg/m3	1	11/9/2020 04:02 PM
Chloroethane	ND		1.32	µg/m3	1	11/9/2020 04:02 PM
Chloroform	ND		0.976	µg/m3	1	11/9/2020 04:02 PM
<b>Chloromethane</b>	<b>1.18</b>		<b>1.03</b>	<b>µg/m3</b>	1	11/9/2020 04:02 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 04:02 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/9/2020 04:02 PM
Cumene	ND		2.46	µg/m3	1	11/9/2020 04:02 PM
Cyclohexane	ND		1.72	µg/m3	1	11/9/2020 04:02 PM
Dibromochloromethane	ND		4.26	µg/m3	1	11/9/2020 04:02 PM
Dichlorodifluoromethane	ND		2.47	µg/m3	1	11/9/2020 04:02 PM
Ethyl acetate	ND		1.80	µg/m3	1	11/9/2020 04:02 PM
<b>Ethylbenzene</b>	<b>0.564</b>		<b>0.300</b>	<b>µg/m3</b>	1	11/9/2020 04:02 PM
Freon 113	ND		3.83	µg/m3	1	11/9/2020 04:02 PM
Freon 114	ND		3.50	µg/m3	1	11/9/2020 04:02 PM
Heptane	ND		2.05	µg/m3	1	11/9/2020 04:02 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	11/9/2020 04:02 PM
<b>Hexane</b>	<b>2.26</b>		<b>1.76</b>	<b>µg/m3</b>	1	11/9/2020 04:02 PM
m,p-Xylene	ND		2.17	µg/m3	1	11/9/2020 04:02 PM
Methylene chloride	ND		7.00	µg/m3	1	11/9/2020 04:02 PM
MTBE	ND		1.80	µg/m3	1	11/9/2020 04:02 PM
Naphthalene	ND		0.540	µg/m3	1	11/9/2020 04:02 PM
o-Xylene	ND		2.17	µg/m3	1	11/9/2020 04:02 PM
Propene	ND		0.861	µg/m3	1	11/9/2020 04:02 PM
Styrene	ND		2.13	µg/m3	1	11/9/2020 04:02 PM
Tetrachloroethene	ND		3.39	µg/m3	1	11/9/2020 04:02 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	11/9/2020 04:02 PM

### Note:

ALS Environmental

Date: 20-Nov-20

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** IA-1

Lab ID: 20101133-02

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	3.35		1.88	µg/m3	1	11/9/2020 04:02 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 04:02 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/9/2020 04:02 PM
Trichloroethene	ND		0.330	µg/m3	1	11/9/2020 04:02 PM
Trichlorofluoromethane	ND		2.81	µg/m3	1	11/9/2020 04:02 PM
Vinyl acetate	ND		1.76	µg/m3	1	11/9/2020 04:02 PM
Vinyl chloride	ND		1.28	µg/m3	1	11/9/2020 04:02 PM
<i>Surr: Bromofluorobenzene</i>	102		60-140	%REC	1	11/9/2020 04:02 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** SV-1

Lab ID: 20101133-03

**Collection Date:** 10/28/2020

## Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>TO-15 BY GC/MS</b>			<b>ETO-15</b>			Analyst: <b>MRJ</b>
1,1,1-Trichloroethane	ND		0.50	ppbv	1	11/9/2020 04:47 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	11/9/2020 04:47 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	11/9/2020 04:47 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	11/9/2020 04:47 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 04:47 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	11/9/2020 04:47 PM
<b>1,2,4-Trimethylbenzene</b>	<b>0.55</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 04:47 PM
1,2-Dibromoethane	ND		0.20	ppbv	1	11/9/2020 04:47 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	11/9/2020 04:47 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	11/9/2020 04:47 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	11/9/2020 04:47 PM
1,3,5-Trimethylbenzene	ND		0.50	ppbv	1	11/9/2020 04:47 PM
1,3-Butadiene	ND		0.50	ppbv	1	11/9/2020 04:47 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	1	11/9/2020 04:47 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	1	11/9/2020 04:47 PM
1,4-Dioxane	ND		1.0	ppbv	1	11/9/2020 04:47 PM
<b>2-Butanone</b>	<b>2.1</b>		<b>1.0</b>	<b>ppbv</b>	1	11/9/2020 04:47 PM
2-Hexanone	ND		1.0	ppbv	1	11/9/2020 04:47 PM
<b>2-Propanol</b>	<b>2.7</b>		<b>1.0</b>	<b>ppbv</b>	1	11/9/2020 04:47 PM
4-Ethyltoluene	ND		0.50	ppbv	1	11/9/2020 04:47 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	11/9/2020 04:47 PM
<b>Acetone</b>	<b>43</b>	E	<b>1.0</b>	<b>ppbv</b>	1	11/9/2020 04:47 PM
<b>Benzene</b>	<b>0.23</b>		<b>0.017</b>	<b>ppbv</b>	1	11/9/2020 04:47 PM
Benzyl chloride	ND		1.0	ppbv	1	11/9/2020 04:47 PM
Bromodichloromethane	ND		0.50	ppbv	1	11/9/2020 04:47 PM
Bromoform	ND		0.50	ppbv	1	11/9/2020 04:47 PM
Bromomethane	ND		0.50	ppbv	1	11/9/2020 04:47 PM
Carbon disulfide	ND		0.50	ppbv	1	11/9/2020 04:47 PM
Carbon tetrachloride	ND		0.50	ppbv	1	11/9/2020 04:47 PM
Chlorobenzene	ND		0.50	ppbv	1	11/9/2020 04:47 PM
Chloroethane	ND		0.50	ppbv	1	11/9/2020 04:47 PM
Chloroform	ND		0.20	ppbv	1	11/9/2020 04:47 PM
Chloromethane	ND		0.50	ppbv	1	11/9/2020 04:47 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 04:47 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	11/9/2020 04:47 PM
Cumene	ND		0.50	ppbv	1	11/9/2020 04:47 PM
Cyclohexane	ND		0.50	ppbv	1	11/9/2020 04:47 PM
Dibromochloromethane	ND		0.50	ppbv	1	11/9/2020 04:47 PM
<b>Dichlorodifluoromethane</b>	<b>0.61</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 04:47 PM

### Note:

ALS Environmental

Date: 20-Nov-20

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** SV-11

Lab ID: 20101133-03

**Collection Date:** 10/28/2020

## **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	11/9/2020 04:47 PM
<b>Ethylbenzene</b>	<b>2.0</b>		<b>0.070</b>	<b>ppbv</b>	1	11/9/2020 04:47 PM
Freon 113	ND		0.50	ppbv	1	11/9/2020 04:47 PM
Freon 114	ND		0.50	ppbv	1	11/9/2020 04:47 PM
<b>Heptane</b>	<b>0.52</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 04:47 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	11/9/2020 04:47 PM
<b>Hexane</b>	<b>0.60</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 04:47 PM
<b>m,p-Xylene</b>	<b>3.1</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 04:47 PM
Methylene chloride	ND		2.0	ppbv	1	11/9/2020 04:47 PM
MTBE	ND		0.50	ppbv	1	11/9/2020 04:47 PM
<b>Naphthalene</b>	<b>0.23</b>	B	<b>0.10</b>	<b>ppbv</b>	1	11/9/2020 04:47 PM
<b>o-Xylene</b>	<b>2.8</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 04:47 PM
Propene	ND		0.50	ppbv	1	11/9/2020 04:47 PM
Styrene	ND		0.50	ppbv	1	11/9/2020 04:47 PM
Tetrachloroethene	ND		0.50	ppbv	1	11/9/2020 04:47 PM
Tetrahydrofuran	ND		0.50	ppbv	1	11/9/2020 04:47 PM
<b>Toluene</b>	<b>0.99</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 04:47 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 04:47 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	11/9/2020 04:47 PM
Trichloroethene	ND		0.062	ppbv	1	11/9/2020 04:47 PM
Trichlorofluoromethane	ND		0.50	ppbv	1	11/9/2020 04:47 PM
Vinyl acetate	ND		0.50	ppbv	1	11/9/2020 04:47 PM
Vinyl chloride	ND		0.50	ppbv	1	11/9/2020 04:47 PM
Surr: Bromofluorobenzene	102		60-140	%REC	1	11/9/2020 04:47 PM
<b>TO-15 BY GC/MS</b>			<b>ETO-15</b>			<b>Analyst: MRJ</b>
1,1,1-Trichloroethane	ND		2.73	µg/m3	1	11/9/2020 04:47 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	11/9/2020 04:47 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	11/9/2020 04:47 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	11/9/2020 04:47 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 04:47 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	11/9/2020 04:47 PM
<b>1,2,4-Trimethylbenzene</b>	<b>2.70</b>		<b>2.46</b>	<b>µg/m3</b>	1	11/9/2020 04:47 PM
1,2-Dibromoethane	ND		1.54	µg/m3	1	11/9/2020 04:47 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	11/9/2020 04:47 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	11/9/2020 04:47 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	11/9/2020 04:47 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m3	1	11/9/2020 04:47 PM
1,3-Butadiene	ND		1.11	µg/m3	1	11/9/2020 04:47 PM
1,3-Dichlorobenzene	ND		6.01	µg/m3	1	11/9/2020 04:47 PM
1,4-Dichlorobenzene	ND		6.01	µg/m3	1	11/9/2020 04:47 PM

### Note:

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** SV-11

Lab ID: 20101133-03

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	11/9/2020 04:47 PM
<b>2-Butanone</b>	<b>6.10</b>		<b>2.95</b>	<b>µg/m3</b>	1	11/9/2020 04:47 PM
2-Hexanone	ND		4.10	µg/m3	1	11/9/2020 04:47 PM
<b>2-Propanol</b>	<b>6.66</b>		<b>2.46</b>	<b>µg/m3</b>	1	11/9/2020 04:47 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	11/9/2020 04:47 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	11/9/2020 04:47 PM
<b>Acetone</b>	<b>102</b>	E	<b>2.38</b>	<b>µg/m3</b>	1	11/9/2020 04:47 PM
<b>Benzene</b>	<b>0.735</b>		<b>0.0540</b>	<b>µg/m3</b>	1	11/9/2020 04:47 PM
Benzyl chloride	ND		5.18	µg/m3	1	11/9/2020 04:47 PM
Bromodichloromethane	ND		3.35	µg/m3	1	11/9/2020 04:47 PM
Bromoform	ND		5.17	µg/m3	1	11/9/2020 04:47 PM
Bromomethane	ND		1.94	µg/m3	1	11/9/2020 04:47 PM
Carbon disulfide	ND		1.56	µg/m3	1	11/9/2020 04:47 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	11/9/2020 04:47 PM
Chlorobenzene	ND		2.30	µg/m3	1	11/9/2020 04:47 PM
Chloroethane	ND		1.32	µg/m3	1	11/9/2020 04:47 PM
Chloroform	ND		0.976	µg/m3	1	11/9/2020 04:47 PM
Chloromethane	ND		1.03	µg/m3	1	11/9/2020 04:47 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 04:47 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/9/2020 04:47 PM
Cumene	ND		2.46	µg/m3	1	11/9/2020 04:47 PM
Cyclohexane	ND		1.72	µg/m3	1	11/9/2020 04:47 PM
Dibromochloromethane	ND		4.26	µg/m3	1	11/9/2020 04:47 PM
<b>Dichlorodifluoromethane</b>	<b>3.02</b>		<b>2.47</b>	<b>µg/m3</b>	1	11/9/2020 04:47 PM
Ethyl acetate	ND		1.80	µg/m3	1	11/9/2020 04:47 PM
<b>Ethylbenzene</b>	<b>8.68</b>		<b>0.300</b>	<b>µg/m3</b>	1	11/9/2020 04:47 PM
Freon 113	ND		3.83	µg/m3	1	11/9/2020 04:47 PM
Freon 114	ND		3.50	µg/m3	1	11/9/2020 04:47 PM
<b>Heptane</b>	<b>2.13</b>		<b>2.05</b>	<b>µg/m3</b>	1	11/9/2020 04:47 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	11/9/2020 04:47 PM
<b>Hexane</b>	<b>2.11</b>		<b>1.76</b>	<b>µg/m3</b>	1	11/9/2020 04:47 PM
<b>m,p-Xylene</b>	<b>13.5</b>		<b>2.17</b>	<b>µg/m3</b>	1	11/9/2020 04:47 PM
Methylene chloride	ND		7.00	µg/m3	1	11/9/2020 04:47 PM
MTBE	ND		1.80	µg/m3	1	11/9/2020 04:47 PM
<b>Naphthalene</b>	<b>1.21</b>		<b>0.540</b>	<b>µg/m3</b>	1	11/9/2020 04:47 PM
<b>o-Xylene</b>	<b>12.2</b>		<b>2.17</b>	<b>µg/m3</b>	1	11/9/2020 04:47 PM
Propene	ND		0.861	µg/m3	1	11/9/2020 04:47 PM
Styrene	ND		2.13	µg/m3	1	11/9/2020 04:47 PM
Tetrachloroethene	ND		3.39	µg/m3	1	11/9/2020 04:47 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	11/9/2020 04:47 PM

### Note:

ALS Environmental

Date: 20-Nov-20

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** SV-11

Lab ID: 20101133-03

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	3.73		1.88	µg/m3	1	11/9/2020 04:47 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 04:47 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/9/2020 04:47 PM
Trichloroethene	ND		0.330	µg/m3	1	11/9/2020 04:47 PM
Trichlorofluoromethane	ND		2.81	µg/m3	1	11/9/2020 04:47 PM
Vinyl acetate	ND		1.76	µg/m3	1	11/9/2020 04:47 PM
Vinyl chloride	ND		1.28	µg/m3	1	11/9/2020 04:47 PM
<i>Surr: Bromofluorobenzene</i>	102		60-140	%REC	1	11/9/2020 04:47 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** IA-2

Lab ID: 20101133-04

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>TO-15 BY GC/MS</b>			<b>ETO-15</b>			Analyst: <b>MRJ</b>
1,1,1-Trichloroethane	ND		0.50	ppbv	1	11/9/2020 05:32 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	11/9/2020 05:32 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	11/9/2020 05:32 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	11/9/2020 05:32 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 05:32 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	11/9/2020 05:32 PM
1,2,4-Trimethylbenzene	ND		0.50	ppbv	1	11/9/2020 05:32 PM
1,2-Dibromoethane	ND		0.20	ppbv	1	11/9/2020 05:32 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	11/9/2020 05:32 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	11/9/2020 05:32 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	11/9/2020 05:32 PM
1,3,5-Trimethylbenzene	ND		0.50	ppbv	1	11/9/2020 05:32 PM
1,3-Butadiene	ND		0.50	ppbv	1	11/9/2020 05:32 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	1	11/9/2020 05:32 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	1	11/9/2020 05:32 PM
1,4-Dioxane	ND		1.0	ppbv	1	11/9/2020 05:32 PM
2-Butanone	ND		1.0	ppbv	1	11/9/2020 05:32 PM
2-Hexanone	ND		1.0	ppbv	1	11/9/2020 05:32 PM
<b>2-Propanol</b>	<b>4.0</b>		<b>1.0</b>	<b>ppbv</b>	1	11/9/2020 05:32 PM
4-Ethyltoluene	ND		0.50	ppbv	1	11/9/2020 05:32 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	11/9/2020 05:32 PM
<b>Acetone</b>	<b>20</b>		<b>1.0</b>	<b>ppbv</b>	1	11/9/2020 05:32 PM
<b>Benzene</b>	<b>0.24</b>		<b>0.017</b>	<b>ppbv</b>	1	11/9/2020 05:32 PM
Benzyl chloride	ND		1.0	ppbv	1	11/9/2020 05:32 PM
Bromodichloromethane	ND		0.50	ppbv	1	11/9/2020 05:32 PM
Bromoform	ND		0.50	ppbv	1	11/9/2020 05:32 PM
Bromomethane	ND		0.50	ppbv	1	11/9/2020 05:32 PM
Carbon disulfide	ND		0.50	ppbv	1	11/9/2020 05:32 PM
Carbon tetrachloride	ND		0.50	ppbv	1	11/9/2020 05:32 PM
Chlorobenzene	ND		0.50	ppbv	1	11/9/2020 05:32 PM
Chloroethane	ND		0.50	ppbv	1	11/9/2020 05:32 PM
Chloroform	ND		0.20	ppbv	1	11/9/2020 05:32 PM
<b>Chloromethane</b>	<b>0.57</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 05:32 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 05:32 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	11/9/2020 05:32 PM
Cumene	ND		0.50	ppbv	1	11/9/2020 05:32 PM
Cyclohexane	ND		0.50	ppbv	1	11/9/2020 05:32 PM
Dibromochloromethane	ND		0.50	ppbv	1	11/9/2020 05:32 PM
Dichlorodifluoromethane	ND		0.50	ppbv	1	11/9/2020 05:32 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** IA-2

Lab ID: 20101133-04

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	11/9/2020 05:32 PM
<b>Ethylbenzene</b>	<b>0.12</b>		<b>0.070</b>	<b>ppbv</b>	1	11/9/2020 05:32 PM
Freon 113	ND		0.50	ppbv	1	11/9/2020 05:32 PM
Freon 114	ND		0.50	ppbv	1	11/9/2020 05:32 PM
<b>Heptane</b>	<b>0.55</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 05:32 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	11/9/2020 05:32 PM
<b>Hexane</b>	<b>1.2</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 05:32 PM
m,p-Xylene	ND		0.50	ppbv	1	11/9/2020 05:32 PM
Methylene chloride	ND		2.0	ppbv	1	11/9/2020 05:32 PM
MTBE	ND		0.50	ppbv	1	11/9/2020 05:32 PM
<b>Naphthalene</b>	<b>0.11</b>	B	<b>0.10</b>	<b>ppbv</b>	1	11/9/2020 05:32 PM
o-Xylene	ND		0.50	ppbv	1	11/9/2020 05:32 PM
Propene	ND		0.50	ppbv	1	11/9/2020 05:32 PM
Styrene	ND		0.50	ppbv	1	11/9/2020 05:32 PM
Tetrachloroethene	ND		0.50	ppbv	1	11/9/2020 05:32 PM
Tetrahydrofuran	ND		0.50	ppbv	1	11/9/2020 05:32 PM
<b>Toluene</b>	<b>0.75</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 05:32 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 05:32 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	11/9/2020 05:32 PM
Trichloroethene	ND		0.062	ppbv	1	11/9/2020 05:32 PM
Trichlorofluoromethane	ND		0.50	ppbv	1	11/9/2020 05:32 PM
Vinyl acetate	ND		0.50	ppbv	1	11/9/2020 05:32 PM
Vinyl chloride	ND		0.50	ppbv	1	11/9/2020 05:32 PM
Surr: Bromofluorobenzene	102		60-140	%REC	1	11/9/2020 05:32 PM
<b>TO-15 BY GC/MS</b>			<b>ETO-15</b>			<b>Analyst: MRJ</b>
1,1,1-Trichloroethane	ND		2.73	µg/m3	1	11/9/2020 05:32 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	11/9/2020 05:32 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	11/9/2020 05:32 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	11/9/2020 05:32 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 05:32 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	11/9/2020 05:32 PM
1,2,4-Trimethylbenzene	ND		2.46	µg/m3	1	11/9/2020 05:32 PM
1,2-Dibromoethane	ND		1.54	µg/m3	1	11/9/2020 05:32 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	11/9/2020 05:32 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	11/9/2020 05:32 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	11/9/2020 05:32 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m3	1	11/9/2020 05:32 PM
1,3-Butadiene	ND		1.11	µg/m3	1	11/9/2020 05:32 PM
1,3-Dichlorobenzene	ND		6.01	µg/m3	1	11/9/2020 05:32 PM
1,4-Dichlorobenzene	ND		6.01	µg/m3	1	11/9/2020 05:32 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** IA-2

Lab ID: 20101133-04

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	11/9/2020 05:32 PM
2-Butanone	ND		2.95	µg/m3	1	11/9/2020 05:32 PM
2-Hexanone	ND		4.10	µg/m3	1	11/9/2020 05:32 PM
<b>2-Propanol</b>	<b>9.95</b>		<b>2.46</b>	<b>µg/m3</b>	1	11/9/2020 05:32 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	11/9/2020 05:32 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	11/9/2020 05:32 PM
<b>Acetone</b>	<b>46.8</b>		<b>2.38</b>	<b>µg/m3</b>	1	11/9/2020 05:32 PM
<b>Benzene</b>	<b>0.767</b>		<b>0.0540</b>	<b>µg/m3</b>	1	11/9/2020 05:32 PM
Benzyl chloride	ND		5.18	µg/m3	1	11/9/2020 05:32 PM
Bromodichloromethane	ND		3.35	µg/m3	1	11/9/2020 05:32 PM
Bromoform	ND		5.17	µg/m3	1	11/9/2020 05:32 PM
Bromomethane	ND		1.94	µg/m3	1	11/9/2020 05:32 PM
Carbon disulfide	ND		1.56	µg/m3	1	11/9/2020 05:32 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	11/9/2020 05:32 PM
Chlorobenzene	ND		2.30	µg/m3	1	11/9/2020 05:32 PM
Chloroethane	ND		1.32	µg/m3	1	11/9/2020 05:32 PM
Chloroform	ND		0.976	µg/m3	1	11/9/2020 05:32 PM
<b>Chloromethane</b>	<b>1.18</b>		<b>1.03</b>	<b>µg/m3</b>	1	11/9/2020 05:32 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 05:32 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/9/2020 05:32 PM
Cumene	ND		2.46	µg/m3	1	11/9/2020 05:32 PM
Cyclohexane	ND		1.72	µg/m3	1	11/9/2020 05:32 PM
Dibromochloromethane	ND		4.26	µg/m3	1	11/9/2020 05:32 PM
Dichlorodifluoromethane	ND		2.47	µg/m3	1	11/9/2020 05:32 PM
Ethyl acetate	ND		1.80	µg/m3	1	11/9/2020 05:32 PM
<b>Ethylbenzene</b>	<b>0.521</b>		<b>0.300</b>	<b>µg/m3</b>	1	11/9/2020 05:32 PM
Freon 113	ND		3.83	µg/m3	1	11/9/2020 05:32 PM
Freon 114	ND		3.50	µg/m3	1	11/9/2020 05:32 PM
<b>Heptane</b>	<b>2.25</b>		<b>2.05</b>	<b>µg/m3</b>	1	11/9/2020 05:32 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	11/9/2020 05:32 PM
<b>Hexane</b>	<b>4.05</b>		<b>1.76</b>	<b>µg/m3</b>	1	11/9/2020 05:32 PM
m,p-Xylene	ND		2.17	µg/m3	1	11/9/2020 05:32 PM
Methylene chloride	ND		7.00	µg/m3	1	11/9/2020 05:32 PM
MTBE	ND		1.80	µg/m3	1	11/9/2020 05:32 PM
<b>Naphthalene</b>	<b>0.577</b>		<b>0.540</b>	<b>µg/m3</b>	1	11/9/2020 05:32 PM
o-Xylene	ND		2.17	µg/m3	1	11/9/2020 05:32 PM
Propene	ND		0.861	µg/m3	1	11/9/2020 05:32 PM
Styrene	ND		2.13	µg/m3	1	11/9/2020 05:32 PM
Tetrachloroethene	ND		3.39	µg/m3	1	11/9/2020 05:32 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	11/9/2020 05:32 PM

### Note:

ALS Environmental

Date: 20-Nov-20

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** IA-2

Lab ID: 20101133-04

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	2.83		1.88	µg/m3	1	11/9/2020 05:32 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 05:32 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/9/2020 05:32 PM
Trichloroethene	ND		0.330	µg/m3	1	11/9/2020 05:32 PM
Trichlorofluoromethane	ND		2.81	µg/m3	1	11/9/2020 05:32 PM
Vinyl acetate	ND		1.76	µg/m3	1	11/9/2020 05:32 PM
Vinyl chloride	ND		1.28	µg/m3	1	11/9/2020 05:32 PM
<i>Surr: Bromofluorobenzene</i>	102		60-140	%REC	1	11/9/2020 05:32 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** SV-12

Lab ID: 20101133-05

**Collection Date:** 10/28/2020

## Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>TO-15 BY GC/MS</b>			<b>ETO-15</b>			Analyst: <b>MRJ</b>
1,1,1-Trichloroethane	<b>8.6</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 05:40 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	11/10/2020 05:40 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	11/10/2020 05:40 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	11/10/2020 05:40 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	11/10/2020 05:40 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	11/10/2020 05:40 PM
<b>1,2,4-Trimethylbenzene</b>	<b>1.2</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 05:40 PM
1,2-Dibromoethane	ND		0.20	ppbv	1	11/10/2020 05:40 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	11/10/2020 05:40 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	11/10/2020 05:40 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	11/10/2020 05:40 PM
1,3,5-Trimethylbenzene	ND		0.50	ppbv	1	11/10/2020 05:40 PM
1,3-Butadiene	ND		0.50	ppbv	1	11/10/2020 05:40 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	1	11/10/2020 05:40 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	1	11/10/2020 05:40 PM
1,4-Dioxane	ND		1.0	ppbv	1	11/10/2020 05:40 PM
<b>2-Butanone</b>	<b>5.8</b>		<b>1.0</b>	<b>ppbv</b>	1	11/10/2020 05:40 PM
<b>2-Hexanone</b>	<b>2.6</b>		<b>1.0</b>	<b>ppbv</b>	1	11/10/2020 05:40 PM
<b>2-Propanol</b>	<b>4.6</b>		<b>1.0</b>	<b>ppbv</b>	1	11/10/2020 05:40 PM
4-Ethyltoluene	ND		0.50	ppbv	1	11/10/2020 05:40 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	11/10/2020 05:40 PM
<b>Acetone</b>	<b>78</b>	E	<b>1.0</b>	<b>ppbv</b>	1	11/10/2020 05:40 PM
<b>Benzene</b>	<b>0.90</b>		<b>0.017</b>	<b>ppbv</b>	1	11/10/2020 05:40 PM
Benzyl chloride	ND		1.0	ppbv	1	11/10/2020 05:40 PM
Bromodichloromethane	ND		0.50	ppbv	1	11/10/2020 05:40 PM
Bromoform	ND		0.50	ppbv	1	11/10/2020 05:40 PM
Bromomethane	ND		0.50	ppbv	1	11/10/2020 05:40 PM
<b>Carbon disulfide</b>	<b>0.52</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 05:40 PM
Carbon tetrachloride	ND		0.50	ppbv	1	11/10/2020 05:40 PM
Chlorobenzene	ND		0.50	ppbv	1	11/10/2020 05:40 PM
Chloroethane	ND		0.50	ppbv	1	11/10/2020 05:40 PM
Chloroform	ND		0.20	ppbv	1	11/10/2020 05:40 PM
Chloromethane	ND		0.50	ppbv	1	11/10/2020 05:40 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	11/10/2020 05:40 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	11/10/2020 05:40 PM
Cumene	ND		0.50	ppbv	1	11/10/2020 05:40 PM
<b>Cyclohexane</b>	<b>1.1</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 05:40 PM
Dibromochloromethane	ND		0.50	ppbv	1	11/10/2020 05:40 PM
<b>Dichlorodifluoromethane</b>	<b>0.78</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 05:40 PM

### Note:

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** SV-12

Lab ID: 20101133-05

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	11/10/2020 05:40 PM
<b>Ethylbenzene</b>	<b>1.1</b>		<b>0.070</b>	<b>ppbv</b>	1	11/10/2020 05:40 PM
Freon 113	ND		0.50	ppbv	1	11/10/2020 05:40 PM
Freon 114	ND		0.50	ppbv	1	11/10/2020 05:40 PM
<b>Heptane</b>	<b>2.1</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 05:40 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	11/10/2020 05:40 PM
<b>Hexane</b>	<b>2.2</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 05:40 PM
<b>m,p-Xylene</b>	<b>3.5</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 05:40 PM
Methylene chloride	ND		2.0	ppbv	1	11/10/2020 05:40 PM
MTBE	ND		0.50	ppbv	1	11/10/2020 05:40 PM
<b>Naphthalene</b>	<b>0.44</b>		<b>0.10</b>	<b>ppbv</b>	1	11/10/2020 05:40 PM
<b>o-Xylene</b>	<b>2.6</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 05:40 PM
Propene	ND		0.50	ppbv	1	11/10/2020 05:40 PM
Styrene	ND		0.50	ppbv	1	11/10/2020 05:40 PM
Tetrachloroethene	ND		0.50	ppbv	1	11/10/2020 05:40 PM
Tetrahydrofuran	ND		0.50	ppbv	1	11/10/2020 05:40 PM
<b>Toluene</b>	<b>3.0</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 05:40 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	11/10/2020 05:40 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	11/10/2020 05:40 PM
Trichloroethene	ND		0.062	ppbv	1	11/10/2020 05:40 PM
Trichlorofluoromethane	ND		0.50	ppbv	1	11/10/2020 05:40 PM
Vinyl acetate	ND		0.50	ppbv	1	11/10/2020 05:40 PM
Vinyl chloride	ND		0.50	ppbv	1	11/10/2020 05:40 PM
Surr: Bromofluorobenzene	104		60-140	%REC	1	11/10/2020 05:40 PM
<b>TO-15 BY GC/MS</b>						
			<b>ETO-15</b>			<b>Analyst: MRJ</b>
<b>1,1,1-Trichloroethane</b>	<b>47.2</b>		<b>2.73</b>	<b>µg/m³</b>	1	11/10/2020 05:40 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m³	1	11/10/2020 05:40 PM
1,1,2-Trichloroethane	ND		2.73	µg/m³	1	11/10/2020 05:40 PM
1,1-Dichloroethane	ND		2.02	µg/m³	1	11/10/2020 05:40 PM
1,1-Dichloroethene	ND		1.98	µg/m³	1	11/10/2020 05:40 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m³	1	11/10/2020 05:40 PM
<b>1,2,4-Trimethylbenzene</b>	<b>5.80</b>		<b>2.46</b>	<b>µg/m³</b>	1	11/10/2020 05:40 PM
1,2-Dibromoethane	ND		1.54	µg/m³	1	11/10/2020 05:40 PM
1,2-Dichlorobenzene	ND		3.01	µg/m³	1	11/10/2020 05:40 PM
1,2-Dichloroethane	ND		2.02	µg/m³	1	11/10/2020 05:40 PM
1,2-Dichloropropane	ND		2.31	µg/m³	1	11/10/2020 05:40 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m³	1	11/10/2020 05:40 PM
1,3-Butadiene	ND		1.11	µg/m³	1	11/10/2020 05:40 PM
1,3-Dichlorobenzene	ND		6.01	µg/m³	1	11/10/2020 05:40 PM
1,4-Dichlorobenzene	ND		6.01	µg/m³	1	11/10/2020 05:40 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** SV-12

Lab ID: 20101133-05

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	11/10/2020 05:40 PM
<b>2-Butanone</b>	<b>17.1</b>		<b>2.95</b>	<b>µg/m3</b>	1	11/10/2020 05:40 PM
<b>2-Hexanone</b>	<b>10.6</b>		<b>4.10</b>	<b>µg/m3</b>	1	11/10/2020 05:40 PM
<b>2-Propanol</b>	<b>11.2</b>		<b>2.46</b>	<b>µg/m3</b>	1	11/10/2020 05:40 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	11/10/2020 05:40 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	11/10/2020 05:40 PM
<b>Acetone</b>	<b>186</b>	E	<b>2.38</b>	<b>µg/m3</b>	1	11/10/2020 05:40 PM
<b>Benzene</b>	<b>2.88</b>		<b>0.0540</b>	<b>µg/m3</b>	1	11/10/2020 05:40 PM
Benzyl chloride	ND		5.18	µg/m3	1	11/10/2020 05:40 PM
Bromodichloromethane	ND		3.35	µg/m3	1	11/10/2020 05:40 PM
Bromoform	ND		5.17	µg/m3	1	11/10/2020 05:40 PM
Bromomethane	ND		1.94	µg/m3	1	11/10/2020 05:40 PM
<b>Carbon disulfide</b>	<b>1.62</b>		<b>1.56</b>	<b>µg/m3</b>	1	11/10/2020 05:40 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	11/10/2020 05:40 PM
Chlorobenzene	ND		2.30	µg/m3	1	11/10/2020 05:40 PM
Chloroethane	ND		1.32	µg/m3	1	11/10/2020 05:40 PM
Chloroform	ND		0.976	µg/m3	1	11/10/2020 05:40 PM
Chloromethane	ND		1.03	µg/m3	1	11/10/2020 05:40 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/10/2020 05:40 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/10/2020 05:40 PM
Cumene	ND		2.46	µg/m3	1	11/10/2020 05:40 PM
<b>Cyclohexane</b>	<b>3.82</b>		<b>1.72</b>	<b>µg/m3</b>	1	11/10/2020 05:40 PM
Dibromochloromethane	ND		4.26	µg/m3	1	11/10/2020 05:40 PM
<b>Dichlorodifluoromethane</b>	<b>3.86</b>		<b>2.47</b>	<b>µg/m3</b>	1	11/10/2020 05:40 PM
Ethyl acetate	ND		1.80	µg/m3	1	11/10/2020 05:40 PM
<b>Ethylbenzene</b>	<b>4.91</b>		<b>0.300</b>	<b>µg/m3</b>	1	11/10/2020 05:40 PM
Freon 113	ND		3.83	µg/m3	1	11/10/2020 05:40 PM
Freon 114	ND		3.50	µg/m3	1	11/10/2020 05:40 PM
<b>Heptane</b>	<b>8.61</b>		<b>2.05</b>	<b>µg/m3</b>	1	11/10/2020 05:40 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	11/10/2020 05:40 PM
<b>Hexane</b>	<b>7.90</b>		<b>1.76</b>	<b>µg/m3</b>	1	11/10/2020 05:40 PM
<b>m,p-Xylene</b>	<b>15.0</b>		<b>2.17</b>	<b>µg/m3</b>	1	11/10/2020 05:40 PM
Methylene chloride	ND		7.00	µg/m3	1	11/10/2020 05:40 PM
MTBE	ND		1.80	µg/m3	1	11/10/2020 05:40 PM
<b>Naphthalene</b>	<b>2.31</b>		<b>0.540</b>	<b>µg/m3</b>	1	11/10/2020 05:40 PM
<b>o-Xylene</b>	<b>11.4</b>		<b>2.17</b>	<b>µg/m3</b>	1	11/10/2020 05:40 PM
Propene	ND		0.861	µg/m3	1	11/10/2020 05:40 PM
Styrene	ND		2.13	µg/m3	1	11/10/2020 05:40 PM
Tetrachloroethene	ND		3.39	µg/m3	1	11/10/2020 05:40 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	11/10/2020 05:40 PM

### Note:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	11.3		1.88	µg/m3	1	11/10/2020 05:40 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/10/2020 05:40 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/10/2020 05:40 PM
Trichloroethene	ND		0.330	µg/m3	1	11/10/2020 05:40 PM
Trichlorofluoromethane	ND		2.81	µg/m3	1	11/10/2020 05:40 PM
Vinyl acetate	ND		1.76	µg/m3	1	11/10/2020 05:40 PM
Vinyl chloride	ND		1.28	µg/m3	1	11/10/2020 05:40 PM
<i>Surr:</i> Bromofluorobenzene	104		60-140	%REC	1	11/10/2020 05:40 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** IA-3

Lab ID: 20101133-06

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>TO-15 BY GC/MS</b>			<b>ETO-15</b>			Analyst: <b>MRJ</b>
1,1,1-Trichloroethane	ND		0.50	ppbv	1	11/9/2020 06:17 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	11/9/2020 06:17 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	11/9/2020 06:17 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	11/9/2020 06:17 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 06:17 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	11/9/2020 06:17 PM
1,2,4-Trimethylbenzene	ND		0.50	ppbv	1	11/9/2020 06:17 PM
1,2-Dibromoethane	ND		0.20	ppbv	1	11/9/2020 06:17 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	11/9/2020 06:17 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	11/9/2020 06:17 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	11/9/2020 06:17 PM
1,3,5-Trimethylbenzene	ND		0.50	ppbv	1	11/9/2020 06:17 PM
1,3-Butadiene	ND		0.50	ppbv	1	11/9/2020 06:17 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	1	11/9/2020 06:17 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	1	11/9/2020 06:17 PM
1,4-Dioxane	ND		1.0	ppbv	1	11/9/2020 06:17 PM
2-Butanone	ND		1.0	ppbv	1	11/9/2020 06:17 PM
2-Hexanone	ND		1.0	ppbv	1	11/9/2020 06:17 PM
<b>2-Propanol</b>	<b>4.6</b>		<b>1.0</b>	<b>ppbv</b>	1	11/9/2020 06:17 PM
4-Ethyltoluene	ND		0.50	ppbv	1	11/9/2020 06:17 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	11/9/2020 06:17 PM
<b>Acetone</b>	<b>21</b>		<b>1.0</b>	<b>ppbv</b>	1	11/9/2020 06:17 PM
<b>Benzene</b>	<b>0.24</b>		<b>0.017</b>	<b>ppbv</b>	1	11/9/2020 06:17 PM
Benzyl chloride	ND		1.0	ppbv	1	11/9/2020 06:17 PM
Bromodichloromethane	ND		0.50	ppbv	1	11/9/2020 06:17 PM
Bromoform	ND		0.50	ppbv	1	11/9/2020 06:17 PM
Bromomethane	ND		0.50	ppbv	1	11/9/2020 06:17 PM
Carbon disulfide	ND		0.50	ppbv	1	11/9/2020 06:17 PM
Carbon tetrachloride	ND		0.50	ppbv	1	11/9/2020 06:17 PM
Chlorobenzene	ND		0.50	ppbv	1	11/9/2020 06:17 PM
Chloroethane	ND		0.50	ppbv	1	11/9/2020 06:17 PM
Chloroform	ND		0.20	ppbv	1	11/9/2020 06:17 PM
<b>Chloromethane</b>	<b>0.57</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 06:17 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 06:17 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	11/9/2020 06:17 PM
Cumene	ND		0.50	ppbv	1	11/9/2020 06:17 PM
Cyclohexane	ND		0.50	ppbv	1	11/9/2020 06:17 PM
Dibromochloromethane	ND		0.50	ppbv	1	11/9/2020 06:17 PM
Dichlorodifluoromethane	ND		0.50	ppbv	1	11/9/2020 06:17 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** IA-3

Lab ID: 20101133-06

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	11/9/2020 06:17 PM
<b>Ethylbenzene</b>	<b>0.12</b>		<b>0.070</b>	<b>ppbv</b>	1	11/9/2020 06:17 PM
Freon 113	ND		0.50	ppbv	1	11/9/2020 06:17 PM
Freon 114	ND		0.50	ppbv	1	11/9/2020 06:17 PM
<b>Heptane</b>	<b>0.68</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 06:17 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	11/9/2020 06:17 PM
<b>Hexane</b>	<b>1.4</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 06:17 PM
m,p-Xylene	ND		0.50	ppbv	1	11/9/2020 06:17 PM
Methylene chloride	ND		2.0	ppbv	1	11/9/2020 06:17 PM
MTBE	ND		0.50	ppbv	1	11/9/2020 06:17 PM
Naphthalene	ND		0.10	ppbv	1	11/9/2020 06:17 PM
o-Xylene	ND		0.50	ppbv	1	11/9/2020 06:17 PM
Propene	ND		0.50	ppbv	1	11/9/2020 06:17 PM
Styrene	ND		0.50	ppbv	1	11/9/2020 06:17 PM
Tetrachloroethene	ND		0.50	ppbv	1	11/9/2020 06:17 PM
Tetrahydrofuran	ND		0.50	ppbv	1	11/9/2020 06:17 PM
<b>Toluene</b>	<b>0.78</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 06:17 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 06:17 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	11/9/2020 06:17 PM
Trichloroethene	ND		0.062	ppbv	1	11/9/2020 06:17 PM
Trichlorofluoromethane	ND		0.50	ppbv	1	11/9/2020 06:17 PM
Vinyl acetate	ND		0.50	ppbv	1	11/9/2020 06:17 PM
Vinyl chloride	ND		0.50	ppbv	1	11/9/2020 06:17 PM
Surr: Bromofluorobenzene	99.4		60-140	%REC	1	11/9/2020 06:17 PM
<b>TO-15 BY GC/MS</b>		<b>ETO-15</b>		Analyst: <b>MRJ</b>		
1,1,1-Trichloroethane	ND		2.73	µg/m3	1	11/9/2020 06:17 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	11/9/2020 06:17 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	11/9/2020 06:17 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	11/9/2020 06:17 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 06:17 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	11/9/2020 06:17 PM
1,2,4-Trimethylbenzene	ND		2.46	µg/m3	1	11/9/2020 06:17 PM
1,2-Dibromoethane	ND		1.54	µg/m3	1	11/9/2020 06:17 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	11/9/2020 06:17 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	11/9/2020 06:17 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	11/9/2020 06:17 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m3	1	11/9/2020 06:17 PM
1,3-Butadiene	ND		1.11	µg/m3	1	11/9/2020 06:17 PM
1,3-Dichlorobenzene	ND		6.01	µg/m3	1	11/9/2020 06:17 PM
1,4-Dichlorobenzene	ND		6.01	µg/m3	1	11/9/2020 06:17 PM

### Note:

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** IA-3

Lab ID: 20101133-06

**Collection Date:** 10/28/2020

## Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	11/9/2020 06:17 PM
2-Butanone	ND		2.95	µg/m3	1	11/9/2020 06:17 PM
2-Hexanone	ND		4.10	µg/m3	1	11/9/2020 06:17 PM
<b>2-Propanol</b>	<b>11.2</b>		<b>2.46</b>	<b>µg/m3</b>	1	11/9/2020 06:17 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	11/9/2020 06:17 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	11/9/2020 06:17 PM
<b>Acetone</b>	<b>50.3</b>		<b>2.38</b>	<b>µg/m3</b>	1	11/9/2020 06:17 PM
<b>Benzene</b>	<b>0.767</b>		<b>0.0540</b>	<b>µg/m3</b>	1	11/9/2020 06:17 PM
Benzyl chloride	ND		5.18	µg/m3	1	11/9/2020 06:17 PM
Bromodichloromethane	ND		3.35	µg/m3	1	11/9/2020 06:17 PM
Bromoform	ND		5.17	µg/m3	1	11/9/2020 06:17 PM
Bromomethane	ND		1.94	µg/m3	1	11/9/2020 06:17 PM
Carbon disulfide	ND		1.56	µg/m3	1	11/9/2020 06:17 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	11/9/2020 06:17 PM
Chlorobenzene	ND		2.30	µg/m3	1	11/9/2020 06:17 PM
Chloroethane	ND		1.32	µg/m3	1	11/9/2020 06:17 PM
Chloroform	ND		0.976	µg/m3	1	11/9/2020 06:17 PM
<b>Chloromethane</b>	<b>1.18</b>		<b>1.03</b>	<b>µg/m3</b>	1	11/9/2020 06:17 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 06:17 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/9/2020 06:17 PM
Cumene	ND		2.46	µg/m3	1	11/9/2020 06:17 PM
Cyclohexane	ND		1.72	µg/m3	1	11/9/2020 06:17 PM
Dibromochloromethane	ND		4.26	µg/m3	1	11/9/2020 06:17 PM
Dichlorodifluoromethane	ND		2.47	µg/m3	1	11/9/2020 06:17 PM
Ethyl acetate	ND		1.80	µg/m3	1	11/9/2020 06:17 PM
<b>Ethylbenzene</b>	<b>0.521</b>		<b>0.300</b>	<b>µg/m3</b>	1	11/9/2020 06:17 PM
Freon 113	ND		3.83	µg/m3	1	11/9/2020 06:17 PM
Freon 114	ND		3.50	µg/m3	1	11/9/2020 06:17 PM
<b>Heptane</b>	<b>2.79</b>		<b>2.05</b>	<b>µg/m3</b>	1	11/9/2020 06:17 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	11/9/2020 06:17 PM
<b>Hexane</b>	<b>4.79</b>		<b>1.76</b>	<b>µg/m3</b>	1	11/9/2020 06:17 PM
m,p-Xylene	ND		2.17	µg/m3	1	11/9/2020 06:17 PM
Methylene chloride	ND		7.00	µg/m3	1	11/9/2020 06:17 PM
MTBE	ND		1.80	µg/m3	1	11/9/2020 06:17 PM
Naphthalene	ND		0.540	µg/m3	1	11/9/2020 06:17 PM
o-Xylene	ND		2.17	µg/m3	1	11/9/2020 06:17 PM
Propene	ND		0.861	µg/m3	1	11/9/2020 06:17 PM
Styrene	ND		2.13	µg/m3	1	11/9/2020 06:17 PM
Tetrachloroethene	ND		3.39	µg/m3	1	11/9/2020 06:17 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	11/9/2020 06:17 PM

### Note:

ALS Environmental

Date: 20-Nov-20

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** IA-3

Lab ID: 20101133-06

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	2.94		1.88	µg/m3	1	11/9/2020 06:17 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 06:17 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/9/2020 06:17 PM
Trichloroethene	ND		0.330	µg/m3	1	11/9/2020 06:17 PM
Trichlorofluoromethane	ND		2.81	µg/m3	1	11/9/2020 06:17 PM
Vinyl acetate	ND		1.76	µg/m3	1	11/9/2020 06:17 PM
Vinyl chloride	ND		1.28	µg/m3	1	11/9/2020 06:17 PM
<i>Surr: Bromofluorobenzene</i>	99.4		60-140	%REC	1	11/9/2020 06:17 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** SV-13

Lab ID: 20101133-07

**Collection Date:** 10/28/2020

## Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>TO-15 BY GC/MS</b>						
1,1,1-Trichloroethane	ND		0.50	ppbv	1	11/10/2020 06:26 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	11/10/2020 06:26 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	11/10/2020 06:26 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	11/10/2020 06:26 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	11/10/2020 06:26 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	11/10/2020 06:26 PM
<b>1,2,4-Trimethylbenzene</b>	<b>2.2</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 06:26 PM
1,2-Dibromoethane	ND		0.20	ppbv	1	11/10/2020 06:26 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	11/10/2020 06:26 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	11/10/2020 06:26 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	11/10/2020 06:26 PM
<b>1,3,5-Trimethylbenzene</b>	<b>0.75</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 06:26 PM
1,3-Butadiene	ND		0.50	ppbv	1	11/10/2020 06:26 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	1	11/10/2020 06:26 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	1	11/10/2020 06:26 PM
1,4-Dioxane	ND		1.0	ppbv	1	11/10/2020 06:26 PM
<b>2-Butanone</b>	<b>14</b>		<b>1.0</b>	<b>ppbv</b>	1	11/10/2020 06:26 PM
<b>2-Hexanone</b>	<b>4.7</b>		<b>1.0</b>	<b>ppbv</b>	1	11/10/2020 06:26 PM
<b>2-Propanol</b>	<b>7.8</b>		<b>1.0</b>	<b>ppbv</b>	1	11/10/2020 06:26 PM
4-Ethyltoluene	ND		0.50	ppbv	1	11/10/2020 06:26 PM
<b>4-Methyl-2-pentanone</b>	<b>1.8</b>		<b>1.0</b>	<b>ppbv</b>	1	11/10/2020 06:26 PM
<b>Acetone</b>	<b>180</b>		<b>10</b>	<b>ppbv</b>	10	11/11/2020 09:09 AM
<b>Benzene</b>	<b>1.7</b>		<b>0.017</b>	<b>ppbv</b>	1	11/10/2020 06:26 PM
Benzyl chloride	ND		1.0	ppbv	1	11/10/2020 06:26 PM
Bromodichloromethane	ND		0.50	ppbv	1	11/10/2020 06:26 PM
Bromoform	ND		0.50	ppbv	1	11/10/2020 06:26 PM
Bromomethane	ND		0.50	ppbv	1	11/10/2020 06:26 PM
Carbon disulfide	ND		0.50	ppbv	1	11/10/2020 06:26 PM
Carbon tetrachloride	ND		0.50	ppbv	1	11/10/2020 06:26 PM
Chlorobenzene	ND		0.50	ppbv	1	11/10/2020 06:26 PM
Chloroethane	ND		0.50	ppbv	1	11/10/2020 06:26 PM
Chloroform	ND		0.20	ppbv	1	11/10/2020 06:26 PM
Chloromethane	ND		0.50	ppbv	1	11/10/2020 06:26 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	11/10/2020 06:26 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	11/10/2020 06:26 PM
Cumene	ND		0.50	ppbv	1	11/10/2020 06:26 PM
<b>Cyclohexane</b>	<b>1.7</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 06:26 PM
Dibromochloromethane	ND		0.50	ppbv	1	11/10/2020 06:26 PM
<b>Dichlorodifluoromethane</b>	<b>1.0</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 06:26 PM
						Analyst: <b>MRJ</b>

### Note:

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** SV-13

Lab ID: 20101133-07

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	11/10/2020 06:26 PM
<b>Ethylbenzene</b>	<b>3.2</b>		<b>0.070</b>	<b>ppbv</b>	1	11/10/2020 06:26 PM
Freon 113	ND		0.50	ppbv	1	11/10/2020 06:26 PM
Freon 114	ND		0.50	ppbv	1	11/10/2020 06:26 PM
<b>Heptane</b>	<b>4.0</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 06:26 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	11/10/2020 06:26 PM
<b>Hexane</b>	<b>3.2</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 06:26 PM
<b>m,p-Xylene</b>	<b>14</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 06:26 PM
Methylene chloride	ND		2.0	ppbv	1	11/10/2020 06:26 PM
MTBE	ND		0.50	ppbv	1	11/10/2020 06:26 PM
<b>Naphthalene</b>	<b>0.58</b>		<b>0.10</b>	<b>ppbv</b>	1	11/10/2020 06:26 PM
<b>o-Xylene</b>	<b>9.9</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 06:26 PM
Propene	ND		0.50	ppbv	1	11/10/2020 06:26 PM
Styrene	ND		0.50	ppbv	1	11/10/2020 06:26 PM
Tetrachloroethene	ND		0.50	ppbv	1	11/10/2020 06:26 PM
Tetrahydrofuran	ND		0.50	ppbv	1	11/10/2020 06:26 PM
<b>Toluene</b>	<b>6.8</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 06:26 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	11/10/2020 06:26 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	11/10/2020 06:26 PM
<b>Trichloroethene</b>	<b>0.26</b>		<b>0.062</b>	<b>ppbv</b>	1	11/10/2020 06:26 PM
Trichlorofluoromethane	ND		0.50	ppbv	1	11/10/2020 06:26 PM
Vinyl acetate	ND		0.50	ppbv	1	11/10/2020 06:26 PM
Vinyl chloride	ND		0.50	ppbv	1	11/10/2020 06:26 PM
Surr: Bromofluorobenzene	102		60-140	%REC	1	11/10/2020 06:26 PM
<b>TO-15 BY GC/MS</b>						
			<b>ETO-15</b>			<b>Analyst: MRJ</b>
1,1,1-Trichloroethane	ND		2.73	µg/m³	1	11/10/2020 06:26 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m³	1	11/10/2020 06:26 PM
1,1,2-Trichloroethane	ND		2.73	µg/m³	1	11/10/2020 06:26 PM
1,1-Dichloroethane	ND		2.02	µg/m³	1	11/10/2020 06:26 PM
1,1-Dichloroethene	ND		1.98	µg/m³	1	11/10/2020 06:26 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m³	1	11/10/2020 06:26 PM
<b>1,2,4-Trimethylbenzene</b>	<b>10.8</b>		<b>2.46</b>	<b>µg/m³</b>	1	11/10/2020 06:26 PM
1,2-Dibromoethane	ND		1.54	µg/m³	1	11/10/2020 06:26 PM
1,2-Dichlorobenzene	ND		3.01	µg/m³	1	11/10/2020 06:26 PM
1,2-Dichloroethane	ND		2.02	µg/m³	1	11/10/2020 06:26 PM
1,2-Dichloropropane	ND		2.31	µg/m³	1	11/10/2020 06:26 PM
<b>1,3,5-Trimethylbenzene</b>	<b>3.69</b>		<b>2.46</b>	<b>µg/m³</b>	1	11/10/2020 06:26 PM
1,3-Butadiene	ND		1.11	µg/m³	1	11/10/2020 06:26 PM
1,3-Dichlorobenzene	ND		6.01	µg/m³	1	11/10/2020 06:26 PM
1,4-Dichlorobenzene	ND		6.01	µg/m³	1	11/10/2020 06:26 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007    **Work Order:** 20101133

**Sample ID:** SV-13

Lab ID: 20101133-07

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	11/10/2020 06:26 PM
<b>2-Butanone</b>	<b>42.4</b>		<b>2.95</b>	<b>µg/m3</b>	1	11/10/2020 06:26 PM
<b>2-Hexanone</b>	<b>19.3</b>		<b>4.10</b>	<b>µg/m3</b>	1	11/10/2020 06:26 PM
<b>2-Propanol</b>	<b>19.3</b>		<b>2.46</b>	<b>µg/m3</b>	1	11/10/2020 06:26 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	11/10/2020 06:26 PM
<b>4-Methyl-2-pentanone</b>	<b>7.46</b>		<b>4.10</b>	<b>µg/m3</b>	1	11/10/2020 06:26 PM
<b>Acetone</b>	<b>436</b>		<b>23.8</b>	<b>µg/m3</b>	10	11/11/2020 09:09 AM
<b>Benzene</b>	<b>5.49</b>		<b>0.0540</b>	<b>µg/m3</b>	1	11/10/2020 06:26 PM
Benzyl chloride	ND		5.18	µg/m3	1	11/10/2020 06:26 PM
Bromodichloromethane	ND		3.35	µg/m3	1	11/10/2020 06:26 PM
Bromoform	ND		5.17	µg/m3	1	11/10/2020 06:26 PM
Bromomethane	ND		1.94	µg/m3	1	11/10/2020 06:26 PM
Carbon disulfide	ND		1.56	µg/m3	1	11/10/2020 06:26 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	11/10/2020 06:26 PM
Chlorobenzene	ND		2.30	µg/m3	1	11/10/2020 06:26 PM
Chloroethane	ND		1.32	µg/m3	1	11/10/2020 06:26 PM
Chloroform	ND		0.976	µg/m3	1	11/10/2020 06:26 PM
Chloromethane	ND		1.03	µg/m3	1	11/10/2020 06:26 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/10/2020 06:26 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/10/2020 06:26 PM
Cumene	ND		2.46	µg/m3	1	11/10/2020 06:26 PM
<b>Cyclohexane</b>	<b>5.75</b>		<b>1.72</b>	<b>µg/m3</b>	1	11/10/2020 06:26 PM
Dibromochloromethane	ND		4.26	µg/m3	1	11/10/2020 06:26 PM
<b>Dichlorodifluoromethane</b>	<b>4.95</b>		<b>2.47</b>	<b>µg/m3</b>	1	11/10/2020 06:26 PM
Ethyl acetate	ND		1.80	µg/m3	1	11/10/2020 06:26 PM
<b>Ethylbenzene</b>	<b>14.0</b>		<b>0.300</b>	<b>µg/m3</b>	1	11/10/2020 06:26 PM
Freon 113	ND		3.83	µg/m3	1	11/10/2020 06:26 PM
Freon 114	ND		3.50	µg/m3	1	11/10/2020 06:26 PM
<b>Heptane</b>	<b>16.6</b>		<b>2.05</b>	<b>µg/m3</b>	1	11/10/2020 06:26 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	11/10/2020 06:26 PM
<b>Hexane</b>	<b>11.2</b>		<b>1.76</b>	<b>µg/m3</b>	1	11/10/2020 06:26 PM
<b>m,p-Xylene</b>	<b>60.1</b>		<b>2.17</b>	<b>µg/m3</b>	1	11/10/2020 06:26 PM
Methylene chloride	ND		7.00	µg/m3	1	11/10/2020 06:26 PM
MTBE	ND		1.80	µg/m3	1	11/10/2020 06:26 PM
<b>Naphthalene</b>	<b>3.04</b>		<b>0.540</b>	<b>µg/m3</b>	1	11/10/2020 06:26 PM
<b>o-Xylene</b>	<b>42.9</b>		<b>2.17</b>	<b>µg/m3</b>	1	11/10/2020 06:26 PM
Propene	ND		0.861	µg/m3	1	11/10/2020 06:26 PM
Styrene	ND		2.13	µg/m3	1	11/10/2020 06:26 PM
Tetrachloroethene	ND		3.39	µg/m3	1	11/10/2020 06:26 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	11/10/2020 06:26 PM

### Note:

ALS Environmental

Date: 20-Nov-20

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** SV-13

Lab ID: 20101133-07

**Collection Date:** 10/28/2020

## Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	25.7		1.88	µg/m3	1	11/10/2020 06:26 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/10/2020 06:26 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/10/2020 06:26 PM
Trichloroethene	1.40		0.330	µg/m3	1	11/10/2020 06:26 PM
Trichlorofluoromethane	ND		2.81	µg/m3	1	11/10/2020 06:26 PM
Vinyl acetate	ND		1.76	µg/m3	1	11/10/2020 06:26 PM
Vinyl chloride	ND		1.28	µg/m3	1	11/10/2020 06:26 PM
Surr: Bromofluorobenzene	102		60-140	%REC	1	11/10/2020 06:26 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** IA-4

Lab ID: 20101133-08

**Collection Date:** 10/28/2020

## Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>TO-15 BY GC/MS</b>			<b>ETO-15</b>			Analyst: <b>MRJ</b>
1,1,1-Trichloroethane	ND		0.50	ppbv	1	11/9/2020 07:02 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	11/9/2020 07:02 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	11/9/2020 07:02 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	11/9/2020 07:02 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 07:02 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	11/9/2020 07:02 PM
1,2,4-Trimethylbenzene	ND		0.50	ppbv	1	11/9/2020 07:02 PM
1,2-Dibromoethane	ND		0.20	ppbv	1	11/9/2020 07:02 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	11/9/2020 07:02 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	11/9/2020 07:02 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	11/9/2020 07:02 PM
1,3,5-Trimethylbenzene	ND		0.50	ppbv	1	11/9/2020 07:02 PM
1,3-Butadiene	ND		0.50	ppbv	1	11/9/2020 07:02 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	1	11/9/2020 07:02 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	1	11/9/2020 07:02 PM
1,4-Dioxane	ND		1.0	ppbv	1	11/9/2020 07:02 PM
2-Butanone	ND		1.0	ppbv	1	11/9/2020 07:02 PM
2-Hexanone	ND		1.0	ppbv	1	11/9/2020 07:02 PM
<b>2-Propanol</b>	<b>4.5</b>		<b>1.0</b>	<b>ppbv</b>	1	11/9/2020 07:02 PM
4-Ethyltoluene	ND		0.50	ppbv	1	11/9/2020 07:02 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	11/9/2020 07:02 PM
<b>Acetone</b>	<b>20</b>		<b>1.0</b>	<b>ppbv</b>	1	11/9/2020 07:02 PM
<b>Benzene</b>	<b>0.24</b>		<b>0.017</b>	<b>ppbv</b>	1	11/9/2020 07:02 PM
Benzyl chloride	ND		1.0	ppbv	1	11/9/2020 07:02 PM
Bromodichloromethane	ND		0.50	ppbv	1	11/9/2020 07:02 PM
Bromoform	ND		0.50	ppbv	1	11/9/2020 07:02 PM
Bromomethane	ND		0.50	ppbv	1	11/9/2020 07:02 PM
Carbon disulfide	ND		0.50	ppbv	1	11/9/2020 07:02 PM
Carbon tetrachloride	ND		0.50	ppbv	1	11/9/2020 07:02 PM
Chlorobenzene	ND		0.50	ppbv	1	11/9/2020 07:02 PM
Chloroethane	ND		0.50	ppbv	1	11/9/2020 07:02 PM
Chloroform	ND		0.20	ppbv	1	11/9/2020 07:02 PM
<b>Chloromethane</b>	<b>0.61</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 07:02 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 07:02 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	11/9/2020 07:02 PM
Cumene	ND		0.50	ppbv	1	11/9/2020 07:02 PM
Cyclohexane	ND		0.50	ppbv	1	11/9/2020 07:02 PM
Dibromochloromethane	ND		0.50	ppbv	1	11/9/2020 07:02 PM
Dichlorodifluoromethane	ND		0.50	ppbv	1	11/9/2020 07:02 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** IA-4

Lab ID: 20101133-08

**Collection Date:** 10/28/2020

## Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	11/9/2020 07:02 PM
<b>Ethylbenzene</b>	<b>0.12</b>		<b>0.070</b>	<b>ppbv</b>	1	11/9/2020 07:02 PM
Freon 113	ND		0.50	ppbv	1	11/9/2020 07:02 PM
Freon 114	ND		0.50	ppbv	1	11/9/2020 07:02 PM
<b>Heptane</b>	<b>0.65</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 07:02 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	11/9/2020 07:02 PM
<b>Hexane</b>	<b>1.4</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 07:02 PM
m,p-Xylene	ND		0.50	ppbv	1	11/9/2020 07:02 PM
Methylene chloride	ND		2.0	ppbv	1	11/9/2020 07:02 PM
MTBE	ND		0.50	ppbv	1	11/9/2020 07:02 PM
Naphthalene	ND		0.10	ppbv	1	11/9/2020 07:02 PM
o-Xylene	ND		0.50	ppbv	1	11/9/2020 07:02 PM
Propene	ND		0.50	ppbv	1	11/9/2020 07:02 PM
Styrene	ND		0.50	ppbv	1	11/9/2020 07:02 PM
Tetrachloroethene	ND		0.50	ppbv	1	11/9/2020 07:02 PM
Tetrahydrofuran	ND		0.50	ppbv	1	11/9/2020 07:02 PM
<b>Toluene</b>	<b>0.82</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 07:02 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 07:02 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	11/9/2020 07:02 PM
Trichloroethene	ND		0.062	ppbv	1	11/9/2020 07:02 PM
Trichlorofluoromethane	ND		0.50	ppbv	1	11/9/2020 07:02 PM
Vinyl acetate	ND		0.50	ppbv	1	11/9/2020 07:02 PM
Vinyl chloride	ND		0.50	ppbv	1	11/9/2020 07:02 PM
Surr: Bromofluorobenzene	101		60-140	%REC	1	11/9/2020 07:02 PM
<b>TO-15 BY GC/MS</b>		<b>ETO-15</b>		Analyst: <b>MRJ</b>		
1,1,1-Trichloroethane	ND		2.73	µg/m3	1	11/9/2020 07:02 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	11/9/2020 07:02 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	11/9/2020 07:02 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	11/9/2020 07:02 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 07:02 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	11/9/2020 07:02 PM
1,2,4-Trimethylbenzene	ND		2.46	µg/m3	1	11/9/2020 07:02 PM
1,2-Dibromoethane	ND		1.54	µg/m3	1	11/9/2020 07:02 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	11/9/2020 07:02 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	11/9/2020 07:02 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	11/9/2020 07:02 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m3	1	11/9/2020 07:02 PM
1,3-Butadiene	ND		1.11	µg/m3	1	11/9/2020 07:02 PM
1,3-Dichlorobenzene	ND		6.01	µg/m3	1	11/9/2020 07:02 PM
1,4-Dichlorobenzene	ND		6.01	µg/m3	1	11/9/2020 07:02 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** IA-4

Lab ID: 20101133-08

**Collection Date:** 10/28/2020

## Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	11/9/2020 07:02 PM
2-Butanone	ND		2.95	µg/m3	1	11/9/2020 07:02 PM
2-Hexanone	ND		4.10	µg/m3	1	11/9/2020 07:02 PM
<b>2-Propanol</b>	<b>11.0</b>		<b>2.46</b>	<b>µg/m3</b>	1	11/9/2020 07:02 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	11/9/2020 07:02 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	11/9/2020 07:02 PM
<b>Acetone</b>	<b>48.4</b>		<b>2.38</b>	<b>µg/m3</b>	1	11/9/2020 07:02 PM
<b>Benzene</b>	<b>0.767</b>		<b>0.0540</b>	<b>µg/m3</b>	1	11/9/2020 07:02 PM
Benzyl chloride	ND		5.18	µg/m3	1	11/9/2020 07:02 PM
Bromodichloromethane	ND		3.35	µg/m3	1	11/9/2020 07:02 PM
Bromoform	ND		5.17	µg/m3	1	11/9/2020 07:02 PM
Bromomethane	ND		1.94	µg/m3	1	11/9/2020 07:02 PM
Carbon disulfide	ND		1.56	µg/m3	1	11/9/2020 07:02 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	11/9/2020 07:02 PM
Chlorobenzene	ND		2.30	µg/m3	1	11/9/2020 07:02 PM
Chloroethane	ND		1.32	µg/m3	1	11/9/2020 07:02 PM
Chloroform	ND		0.976	µg/m3	1	11/9/2020 07:02 PM
<b>Chloromethane</b>	<b>1.26</b>		<b>1.03</b>	<b>µg/m3</b>	1	11/9/2020 07:02 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 07:02 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/9/2020 07:02 PM
Cumene	ND		2.46	µg/m3	1	11/9/2020 07:02 PM
Cyclohexane	ND		1.72	µg/m3	1	11/9/2020 07:02 PM
Dibromochloromethane	ND		4.26	µg/m3	1	11/9/2020 07:02 PM
Dichlorodifluoromethane	ND		2.47	µg/m3	1	11/9/2020 07:02 PM
Ethyl acetate	ND		1.80	µg/m3	1	11/9/2020 07:02 PM
<b>Ethylbenzene</b>	<b>0.521</b>		<b>0.300</b>	<b>µg/m3</b>	1	11/9/2020 07:02 PM
Freon 113	ND		3.83	µg/m3	1	11/9/2020 07:02 PM
Freon 114	ND		3.50	µg/m3	1	11/9/2020 07:02 PM
<b>Heptane</b>	<b>2.66</b>		<b>2.05</b>	<b>µg/m3</b>	1	11/9/2020 07:02 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	11/9/2020 07:02 PM
<b>Hexane</b>	<b>4.76</b>		<b>1.76</b>	<b>µg/m3</b>	1	11/9/2020 07:02 PM
m,p-Xylene	ND		2.17	µg/m3	1	11/9/2020 07:02 PM
Methylene chloride	ND		7.00	µg/m3	1	11/9/2020 07:02 PM
MTBE	ND		1.80	µg/m3	1	11/9/2020 07:02 PM
Naphthalene	ND		0.540	µg/m3	1	11/9/2020 07:02 PM
o-Xylene	ND		2.17	µg/m3	1	11/9/2020 07:02 PM
Propene	ND		0.861	µg/m3	1	11/9/2020 07:02 PM
Styrene	ND		2.13	µg/m3	1	11/9/2020 07:02 PM
Tetrachloroethene	ND		3.39	µg/m3	1	11/9/2020 07:02 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	11/9/2020 07:02 PM

### Note:

ALS Environmental

Date: 20-Nov-20

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** IA-4

Lab ID: 20101133-08

**Collection Date:** 10/28/2020

## Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	3.09		1.88	µg/m3	1	11/9/2020 07:02 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 07:02 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/9/2020 07:02 PM
Trichloroethene	ND		0.330	µg/m3	1	11/9/2020 07:02 PM
Trichlorofluoromethane	ND		2.81	µg/m3	1	11/9/2020 07:02 PM
Vinyl acetate	ND		1.76	µg/m3	1	11/9/2020 07:02 PM
Vinyl chloride	ND		1.28	µg/m3	1	11/9/2020 07:02 PM
<i>Surr: Bromofluorobenzene</i>	101		60-140	%REC	1	11/9/2020 07:02 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** SV-14

Lab ID: 20101133-09

**Collection Date:** 10/28/2020

## Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>TO-15 BY GC/MS</b>			<b>ETO-15</b>			Analyst: <b>MRJ</b>
1,1,1-Trichloroethane	<b>5.7</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 07:12 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	11/10/2020 07:12 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	11/10/2020 07:12 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	11/10/2020 07:12 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	11/10/2020 07:12 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	11/10/2020 07:12 PM
<b>1,2,4-Trimethylbenzene</b>	<b>0.52</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 07:12 PM
1,2-Dibromoethane	ND		0.20	ppbv	1	11/10/2020 07:12 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	11/10/2020 07:12 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	11/10/2020 07:12 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	11/10/2020 07:12 PM
1,3,5-Trimethylbenzene	ND		0.50	ppbv	1	11/10/2020 07:12 PM
1,3-Butadiene	ND		0.50	ppbv	1	11/10/2020 07:12 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	1	11/10/2020 07:12 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	1	11/10/2020 07:12 PM
1,4-Dioxane	ND		1.0	ppbv	1	11/10/2020 07:12 PM
<b>2-Butanone</b>	<b>1.0</b>		<b>1.0</b>	<b>ppbv</b>	1	11/10/2020 07:12 PM
2-Hexanone	ND		1.0	ppbv	1	11/10/2020 07:12 PM
<b>2-Propanol</b>	<b>4.4</b>		<b>1.0</b>	<b>ppbv</b>	1	11/10/2020 07:12 PM
4-Ethyltoluene	ND		0.50	ppbv	1	11/10/2020 07:12 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	11/10/2020 07:12 PM
<b>Acetone</b>	<b>11</b>		<b>1.0</b>	<b>ppbv</b>	1	11/10/2020 07:12 PM
<b>Benzene</b>	<b>0.69</b>		<b>0.017</b>	<b>ppbv</b>	1	11/10/2020 07:12 PM
Benzyl chloride	ND		1.0	ppbv	1	11/10/2020 07:12 PM
Bromodichloromethane	ND		0.50	ppbv	1	11/10/2020 07:12 PM
Bromoform	ND		0.50	ppbv	1	11/10/2020 07:12 PM
Bromomethane	ND		0.50	ppbv	1	11/10/2020 07:12 PM
Carbon disulfide	ND		0.50	ppbv	1	11/10/2020 07:12 PM
Carbon tetrachloride	ND		0.50	ppbv	1	11/10/2020 07:12 PM
Chlorobenzene	ND		0.50	ppbv	1	11/10/2020 07:12 PM
Chloroethane	ND		0.50	ppbv	1	11/10/2020 07:12 PM
Chloroform	ND		0.20	ppbv	1	11/10/2020 07:12 PM
Chloromethane	ND		0.50	ppbv	1	11/10/2020 07:12 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	11/10/2020 07:12 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	11/10/2020 07:12 PM
Cumene	ND		0.50	ppbv	1	11/10/2020 07:12 PM
<b>Cyclohexane</b>	<b>0.52</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 07:12 PM
Dibromochloromethane	ND		0.50	ppbv	1	11/10/2020 07:12 PM
Dichlorodifluoromethane	ND		0.50	ppbv	1	11/10/2020 07:12 PM

### Note:

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** SV-14

Lab ID: 20101133-09

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	11/10/2020 07:12 PM
<b>Ethylbenzene</b>	<b>0.90</b>		<b>0.070</b>	<b>ppbv</b>	1	11/10/2020 07:12 PM
<b>Freon 113</b>	<b>0.64</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 07:12 PM
Freon 114	ND		0.50	ppbv	1	11/10/2020 07:12 PM
<b>Heptane</b>	<b>1.7</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 07:12 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	11/10/2020 07:12 PM
<b>Hexane</b>	<b>1.5</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 07:12 PM
<b>m,p-Xylene</b>	<b>1.6</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 07:12 PM
Methylene chloride	ND		2.0	ppbv	1	11/10/2020 07:12 PM
MTBE	ND		0.50	ppbv	1	11/10/2020 07:12 PM
<b>Naphthalene</b>	<b>0.35</b>		<b>0.10</b>	<b>ppbv</b>	1	11/10/2020 07:12 PM
<b>o-Xylene</b>	<b>0.75</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 07:12 PM
Propene	ND		0.50	ppbv	1	11/10/2020 07:12 PM
Styrene	ND		0.50	ppbv	1	11/10/2020 07:12 PM
Tetrachloroethene	ND		0.50	ppbv	1	11/10/2020 07:12 PM
Tetrahydrofuran	ND		0.50	ppbv	1	11/10/2020 07:12 PM
<b>Toluene</b>	<b>2.5</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 07:12 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	11/10/2020 07:12 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	11/10/2020 07:12 PM
Trichloroethene	ND		0.062	ppbv	1	11/10/2020 07:12 PM
<b>Trichlorofluoromethane</b>	<b>0.78</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 07:12 PM
Vinyl acetate	ND		0.50	ppbv	1	11/10/2020 07:12 PM
Vinyl chloride	ND		0.50	ppbv	1	11/10/2020 07:12 PM
Surr: Bromofluorobenzene	101		60-140	%REC	1	11/10/2020 07:12 PM
<b>TO-15 BY GC/MS</b>						
			<b>ETO-15</b>			<b>Analyst: MRJ</b>
1,1,1-Trichloroethane	31.2		<b>2.73</b>	<b>µg/m3</b>	1	11/10/2020 07:12 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	11/10/2020 07:12 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	11/10/2020 07:12 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	11/10/2020 07:12 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	11/10/2020 07:12 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	11/10/2020 07:12 PM
<b>1,2,4-Trimethylbenzene</b>	<b>2.56</b>		<b>2.46</b>	<b>µg/m3</b>	1	11/10/2020 07:12 PM
1,2-Dibromoethane	ND		1.54	µg/m3	1	11/10/2020 07:12 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	11/10/2020 07:12 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	11/10/2020 07:12 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	11/10/2020 07:12 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m3	1	11/10/2020 07:12 PM
1,3-Butadiene	ND		1.11	µg/m3	1	11/10/2020 07:12 PM
1,3-Dichlorobenzene	ND		6.01	µg/m3	1	11/10/2020 07:12 PM
1,4-Dichlorobenzene	ND		6.01	µg/m3	1	11/10/2020 07:12 PM

### Note:

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** SV-14

Lab ID: 20101133-09

**Collection Date:** 10/28/2020

## Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	11/10/2020 07:12 PM
<b>2-Butanone</b>	<b>3.07</b>		<b>2.95</b>	<b>µg/m3</b>	1	11/10/2020 07:12 PM
2-Hexanone	ND		4.10	µg/m3	1	11/10/2020 07:12 PM
<b>2-Propanol</b>	<b>10.9</b>		<b>2.46</b>	<b>µg/m3</b>	1	11/10/2020 07:12 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	11/10/2020 07:12 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	11/10/2020 07:12 PM
<b>Acetone</b>	<b>25.5</b>		<b>2.38</b>	<b>µg/m3</b>	1	11/10/2020 07:12 PM
<b>Benzene</b>	<b>2.20</b>		<b>0.0540</b>	<b>µg/m3</b>	1	11/10/2020 07:12 PM
Benzyl chloride	ND		5.18	µg/m3	1	11/10/2020 07:12 PM
Bromodichloromethane	ND		3.35	µg/m3	1	11/10/2020 07:12 PM
Bromoform	ND		5.17	µg/m3	1	11/10/2020 07:12 PM
Bromomethane	ND		1.94	µg/m3	1	11/10/2020 07:12 PM
Carbon disulfide	ND		1.56	µg/m3	1	11/10/2020 07:12 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	11/10/2020 07:12 PM
Chlorobenzene	ND		2.30	µg/m3	1	11/10/2020 07:12 PM
Chloroethane	ND		1.32	µg/m3	1	11/10/2020 07:12 PM
Chloroform	ND		0.976	µg/m3	1	11/10/2020 07:12 PM
Chloromethane	ND		1.03	µg/m3	1	11/10/2020 07:12 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/10/2020 07:12 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/10/2020 07:12 PM
Cumene	ND		2.46	µg/m3	1	11/10/2020 07:12 PM
<b>Cyclohexane</b>	<b>1.79</b>		<b>1.72</b>	<b>µg/m3</b>	1	11/10/2020 07:12 PM
Dibromochloromethane	ND		4.26	µg/m3	1	11/10/2020 07:12 PM
Dichlorodifluoromethane	ND		2.47	µg/m3	1	11/10/2020 07:12 PM
Ethyl acetate	ND		1.80	µg/m3	1	11/10/2020 07:12 PM
<b>Ethylbenzene</b>	<b>3.91</b>		<b>0.300</b>	<b>µg/m3</b>	1	11/10/2020 07:12 PM
<b>Freon 113</b>	<b>4.90</b>		<b>3.83</b>	<b>µg/m3</b>	1	11/10/2020 07:12 PM
Freon 114	ND		3.50	µg/m3	1	11/10/2020 07:12 PM
<b>Heptane</b>	<b>7.13</b>		<b>2.05</b>	<b>µg/m3</b>	1	11/10/2020 07:12 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	11/10/2020 07:12 PM
<b>Hexane</b>	<b>5.32</b>		<b>1.76</b>	<b>µg/m3</b>	1	11/10/2020 07:12 PM
<b>m,p-Xylene</b>	<b>6.77</b>		<b>2.17</b>	<b>µg/m3</b>	1	11/10/2020 07:12 PM
Methylene chloride	ND		7.00	µg/m3	1	11/10/2020 07:12 PM
MTBE	ND		1.80	µg/m3	1	11/10/2020 07:12 PM
<b>Naphthalene</b>	<b>1.83</b>		<b>0.540</b>	<b>µg/m3</b>	1	11/10/2020 07:12 PM
<b>o-Xylene</b>	<b>3.26</b>		<b>2.17</b>	<b>µg/m3</b>	1	11/10/2020 07:12 PM
Propene	ND		0.861	µg/m3	1	11/10/2020 07:12 PM
Styrene	ND		2.13	µg/m3	1	11/10/2020 07:12 PM
Tetrachloroethene	ND		3.39	µg/m3	1	11/10/2020 07:12 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	11/10/2020 07:12 PM

### Note:

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** SV-14

Lab ID: 20101133-09

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	<b>9.53</b>		<b>1.88</b>	<b>µg/m3</b>	1	11/10/2020 07:12 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/10/2020 07:12 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/10/2020 07:12 PM
Trichloroethene	ND		0.330	µg/m3	1	11/10/2020 07:12 PM
<b>Trichlorofluoromethane</b>	<b>4.38</b>		<b>2.81</b>	<b>µg/m3</b>	1	11/10/2020 07:12 PM
Vinyl acetate	ND		1.76	µg/m3	1	11/10/2020 07:12 PM
Vinyl chloride	ND		1.28	µg/m3	1	11/10/2020 07:12 PM
<i>Surr: Bromofluorobenzene</i>	101		60-140	%REC	1	11/10/2020 07:12 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** IA-5

Lab ID: 20101133-10

**Collection Date:** 10/28/2020

## Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>TO-15 BY GC/MS</b>			<b>ETO-15</b>			Analyst: <b>MRJ</b>
1,1,1-Trichloroethane	ND		0.50	ppbv	1	11/9/2020 07:47 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	11/9/2020 07:47 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	11/9/2020 07:47 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	11/9/2020 07:47 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 07:47 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	11/9/2020 07:47 PM
1,2,4-Trimethylbenzene	ND		0.50	ppbv	1	11/9/2020 07:47 PM
1,2-Dibromoethane	ND		0.20	ppbv	1	11/9/2020 07:47 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	11/9/2020 07:47 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	11/9/2020 07:47 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	11/9/2020 07:47 PM
1,3,5-Trimethylbenzene	ND		0.50	ppbv	1	11/9/2020 07:47 PM
1,3-Butadiene	ND		0.50	ppbv	1	11/9/2020 07:47 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	1	11/9/2020 07:47 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	1	11/9/2020 07:47 PM
1,4-Dioxane	ND		1.0	ppbv	1	11/9/2020 07:47 PM
2-Butanone	ND		1.0	ppbv	1	11/9/2020 07:47 PM
2-Hexanone	ND		1.0	ppbv	1	11/9/2020 07:47 PM
<b>2-Propanol</b>	<b>3.2</b>		<b>1.0</b>	<b>ppbv</b>	1	11/9/2020 07:47 PM
4-Ethyltoluene	ND		0.50	ppbv	1	11/9/2020 07:47 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	11/9/2020 07:47 PM
<b>Acetone</b>	<b>17</b>		<b>1.0</b>	<b>ppbv</b>	1	11/9/2020 07:47 PM
<b>Benzene</b>	<b>0.25</b>		<b>0.017</b>	<b>ppbv</b>	1	11/9/2020 07:47 PM
Benzyl chloride	ND		1.0	ppbv	1	11/9/2020 07:47 PM
Bromodichloromethane	ND		0.50	ppbv	1	11/9/2020 07:47 PM
Bromoform	ND		0.50	ppbv	1	11/9/2020 07:47 PM
Bromomethane	ND		0.50	ppbv	1	11/9/2020 07:47 PM
Carbon disulfide	ND		0.50	ppbv	1	11/9/2020 07:47 PM
Carbon tetrachloride	ND		0.50	ppbv	1	11/9/2020 07:47 PM
Chlorobenzene	ND		0.50	ppbv	1	11/9/2020 07:47 PM
Chloroethane	ND		0.50	ppbv	1	11/9/2020 07:47 PM
Chloroform	ND		0.20	ppbv	1	11/9/2020 07:47 PM
<b>Chloromethane</b>	<b>0.63</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 07:47 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 07:47 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	11/9/2020 07:47 PM
Cumene	ND		0.50	ppbv	1	11/9/2020 07:47 PM
Cyclohexane	ND		0.50	ppbv	1	11/9/2020 07:47 PM
Dibromochloromethane	ND		0.50	ppbv	1	11/9/2020 07:47 PM
Dichlorodifluoromethane	ND		0.50	ppbv	1	11/9/2020 07:47 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** IA-5

Lab ID: 20101133-10

**Collection Date:** 10/28/2020

## Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	11/9/2020 07:47 PM
<b>Ethylbenzene</b>	<b>0.11</b>		<b>0.070</b>	<b>ppbv</b>	1	11/9/2020 07:47 PM
Freon 113	ND		0.50	ppbv	1	11/9/2020 07:47 PM
Freon 114	ND		0.50	ppbv	1	11/9/2020 07:47 PM
<b>Heptane</b>	<b>0.66</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 07:47 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	11/9/2020 07:47 PM
<b>Hexane</b>	<b>1.4</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 07:47 PM
m,p-Xylene	ND		0.50	ppbv	1	11/9/2020 07:47 PM
Methylene chloride	ND		2.0	ppbv	1	11/9/2020 07:47 PM
MTBE	ND		0.50	ppbv	1	11/9/2020 07:47 PM
<b>Naphthalene</b>	<b>0.23</b>	B	<b>0.10</b>	<b>ppbv</b>	1	11/9/2020 07:47 PM
o-Xylene	ND		0.50	ppbv	1	11/9/2020 07:47 PM
Propene	ND		0.50	ppbv	1	11/9/2020 07:47 PM
Styrene	ND		0.50	ppbv	1	11/9/2020 07:47 PM
Tetrachloroethene	ND		0.50	ppbv	1	11/9/2020 07:47 PM
Tetrahydrofuran	ND		0.50	ppbv	1	11/9/2020 07:47 PM
<b>Toluene</b>	<b>0.69</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 07:47 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 07:47 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	11/9/2020 07:47 PM
Trichloroethene	ND		0.062	ppbv	1	11/9/2020 07:47 PM
Trichlorofluoromethane	ND		0.50	ppbv	1	11/9/2020 07:47 PM
Vinyl acetate	ND		0.50	ppbv	1	11/9/2020 07:47 PM
Vinyl chloride	ND		0.50	ppbv	1	11/9/2020 07:47 PM
Surr: Bromofluorobenzene	102		60-140	%REC	1	11/9/2020 07:47 PM
<b>TO-15 BY GC/MS</b>		<b>ETO-15</b>		Analyst: <b>MRJ</b>		
1,1,1-Trichloroethane	ND		2.73	µg/m3	1	11/9/2020 07:47 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	11/9/2020 07:47 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	11/9/2020 07:47 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	11/9/2020 07:47 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 07:47 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	11/9/2020 07:47 PM
1,2,4-Trimethylbenzene	ND		2.46	µg/m3	1	11/9/2020 07:47 PM
1,2-Dibromoethane	ND		1.54	µg/m3	1	11/9/2020 07:47 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	11/9/2020 07:47 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	11/9/2020 07:47 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	11/9/2020 07:47 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m3	1	11/9/2020 07:47 PM
1,3-Butadiene	ND		1.11	µg/m3	1	11/9/2020 07:47 PM
1,3-Dichlorobenzene	ND		6.01	µg/m3	1	11/9/2020 07:47 PM
1,4-Dichlorobenzene	ND		6.01	µg/m3	1	11/9/2020 07:47 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** IA-5

Lab ID: 20101133-10

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	11/9/2020 07:47 PM
2-Butanone	ND		2.95	µg/m3	1	11/9/2020 07:47 PM
2-Hexanone	ND		4.10	µg/m3	1	11/9/2020 07:47 PM
<b>2-Propanol</b>	<b>7.96</b>		<b>2.46</b>	<b>µg/m3</b>	1	11/9/2020 07:47 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	11/9/2020 07:47 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	11/9/2020 07:47 PM
<b>Acetone</b>	<b>40.8</b>		<b>2.38</b>	<b>µg/m3</b>	1	11/9/2020 07:47 PM
<b>Benzene</b>	<b>0.799</b>		<b>0.0540</b>	<b>µg/m3</b>	1	11/9/2020 07:47 PM
Benzyl chloride	ND		5.18	µg/m3	1	11/9/2020 07:47 PM
Bromodichloromethane	ND		3.35	µg/m3	1	11/9/2020 07:47 PM
Bromoform	ND		5.17	µg/m3	1	11/9/2020 07:47 PM
Bromomethane	ND		1.94	µg/m3	1	11/9/2020 07:47 PM
Carbon disulfide	ND		1.56	µg/m3	1	11/9/2020 07:47 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	11/9/2020 07:47 PM
Chlorobenzene	ND		2.30	µg/m3	1	11/9/2020 07:47 PM
Chloroethane	ND		1.32	µg/m3	1	11/9/2020 07:47 PM
Chloroform	ND		0.976	µg/m3	1	11/9/2020 07:47 PM
<b>Chloromethane</b>	<b>1.30</b>		<b>1.03</b>	<b>µg/m3</b>	1	11/9/2020 07:47 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 07:47 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/9/2020 07:47 PM
Cumene	ND		2.46	µg/m3	1	11/9/2020 07:47 PM
Cyclohexane	ND		1.72	µg/m3	1	11/9/2020 07:47 PM
Dibromochloromethane	ND		4.26	µg/m3	1	11/9/2020 07:47 PM
Dichlorodifluoromethane	ND		2.47	µg/m3	1	11/9/2020 07:47 PM
Ethyl acetate	ND		1.80	µg/m3	1	11/9/2020 07:47 PM
<b>Ethylbenzene</b>	<b>0.478</b>		<b>0.300</b>	<b>µg/m3</b>	1	11/9/2020 07:47 PM
Freon 113	ND		3.83	µg/m3	1	11/9/2020 07:47 PM
Freon 114	ND		3.50	µg/m3	1	11/9/2020 07:47 PM
<b>Heptane</b>	<b>2.70</b>		<b>2.05</b>	<b>µg/m3</b>	1	11/9/2020 07:47 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	11/9/2020 07:47 PM
<b>Hexane</b>	<b>5.00</b>		<b>1.76</b>	<b>µg/m3</b>	1	11/9/2020 07:47 PM
m,p-Xylene	ND		2.17	µg/m3	1	11/9/2020 07:47 PM
Methylene chloride	ND		7.00	µg/m3	1	11/9/2020 07:47 PM
MTBE	ND		1.80	µg/m3	1	11/9/2020 07:47 PM
<b>Naphthalene</b>	<b>1.21</b>		<b>0.540</b>	<b>µg/m3</b>	1	11/9/2020 07:47 PM
o-Xylene	ND		2.17	µg/m3	1	11/9/2020 07:47 PM
Propene	ND		0.861	µg/m3	1	11/9/2020 07:47 PM
Styrene	ND		2.13	µg/m3	1	11/9/2020 07:47 PM
Tetrachloroethene	ND		3.39	µg/m3	1	11/9/2020 07:47 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	11/9/2020 07:47 PM

### Note:

ALS Environmental

Date: 20-Nov-20

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** IA-5

Lab ID: 20101133-10

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	2.60		1.88	µg/m3	1	11/9/2020 07:47 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 07:47 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/9/2020 07:47 PM
Trichloroethene	ND		0.330	µg/m3	1	11/9/2020 07:47 PM
Trichlorofluoromethane	ND		2.81	µg/m3	1	11/9/2020 07:47 PM
Vinyl acetate	ND		1.76	µg/m3	1	11/9/2020 07:47 PM
Vinyl chloride	ND		1.28	µg/m3	1	11/9/2020 07:47 PM
<i>Surr: Bromofluorobenzene</i>	102		60-140	%REC	1	11/9/2020 07:47 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** SV-15

Lab ID: 20101133-11

**Collection Date:** 10/28/2020

## Matrix: AIR

### Note:

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** SV-15

Lab ID: 20101133-11

**Collection Date:** 10/28/2020

## Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	11/10/2020 07:57 PM
<b>Ethylbenzene</b>	<b>2.1</b>		<b>0.070</b>	<b>ppbv</b>	1	11/10/2020 07:57 PM
Freon 113	ND		0.50	ppbv	1	11/10/2020 07:57 PM
Freon 114	ND		0.50	ppbv	1	11/10/2020 07:57 PM
<b>Heptane</b>	<b>3.6</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 07:57 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	11/10/2020 07:57 PM
<b>Hexane</b>	<b>3.4</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 07:57 PM
<b>m,p-Xylene</b>	<b>3.4</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 07:57 PM
Methylene chloride	ND		2.0	ppbv	1	11/10/2020 07:57 PM
MTBE	ND		0.50	ppbv	1	11/10/2020 07:57 PM
<b>Naphthalene</b>	<b>0.39</b>		<b>0.10</b>	<b>ppbv</b>	1	11/10/2020 07:57 PM
<b>o-Xylene</b>	<b>1.6</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 07:57 PM
Propene	ND		0.50	ppbv	1	11/10/2020 07:57 PM
Styrene	ND		0.50	ppbv	1	11/10/2020 07:57 PM
<b>Tetrachloroethene</b>	<b>0.65</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 07:57 PM
Tetrahydrofuran	ND		0.50	ppbv	1	11/10/2020 07:57 PM
<b>Toluene</b>	<b>5.3</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 07:57 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	11/10/2020 07:57 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	11/10/2020 07:57 PM
Trichloroethene	ND		0.062	ppbv	1	11/10/2020 07:57 PM
<b>Trichlorofluoromethane</b>	<b>0.59</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 07:57 PM
Vinyl acetate	ND		0.50	ppbv	1	11/10/2020 07:57 PM
Vinyl chloride	ND		0.50	ppbv	1	11/10/2020 07:57 PM
Surr: Bromofluorobenzene	103		60-140	%REC	1	11/10/2020 07:57 PM
<b>TO-15 BY GC/MS</b>						
			<b>ETO-15</b>			<b>Analyst: MRJ</b>
1,1,1-Trichloroethane	ND		2.73	µg/m³	1	11/10/2020 07:57 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m³	1	11/10/2020 07:57 PM
1,1,2-Trichloroethane	ND		2.73	µg/m³	1	11/10/2020 07:57 PM
1,1-Dichloroethane	ND		2.02	µg/m³	1	11/10/2020 07:57 PM
1,1-Dichloroethene	ND		1.98	µg/m³	1	11/10/2020 07:57 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m³	1	11/10/2020 07:57 PM
<b>1,2,4-Trimethylbenzene</b>	<b>7.13</b>		<b>2.46</b>	<b>µg/m³</b>	1	11/10/2020 07:57 PM
1,2-Dibromoethane	ND		1.54	µg/m³	1	11/10/2020 07:57 PM
1,2-Dichlorobenzene	ND		3.01	µg/m³	1	11/10/2020 07:57 PM
1,2-Dichloroethane	ND		2.02	µg/m³	1	11/10/2020 07:57 PM
1,2-Dichloropropane	ND		2.31	µg/m³	1	11/10/2020 07:57 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m³	1	11/10/2020 07:57 PM
1,3-Butadiene	ND		1.11	µg/m³	1	11/10/2020 07:57 PM
1,3-Dichlorobenzene	ND		6.01	µg/m³	1	11/10/2020 07:57 PM
1,4-Dichlorobenzene	ND		6.01	µg/m³	1	11/10/2020 07:57 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** SV-15

Lab ID: 20101133-11

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	11/10/2020 07:57 PM
<b>2-Butanone</b>	<b>16.1</b>		<b>2.95</b>	<b>µg/m3</b>	1	11/10/2020 07:57 PM
<b>2-Hexanone</b>	<b>5.49</b>		<b>4.10</b>	<b>µg/m3</b>	1	11/10/2020 07:57 PM
<b>2-Propanol</b>	<b>8.38</b>		<b>2.46</b>	<b>µg/m3</b>	1	11/10/2020 07:57 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	11/10/2020 07:57 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	11/10/2020 07:57 PM
<b>Acetone</b>	<b>177</b>	E	<b>2.38</b>	<b>µg/m3</b>	1	11/10/2020 07:57 PM
<b>Benzene</b>	<b>4.12</b>		<b>0.0540</b>	<b>µg/m3</b>	1	11/10/2020 07:57 PM
Benzyl chloride	ND		5.18	µg/m3	1	11/10/2020 07:57 PM
Bromodichloromethane	ND		3.35	µg/m3	1	11/10/2020 07:57 PM
Bromoform	ND		5.17	µg/m3	1	11/10/2020 07:57 PM
Bromomethane	ND		1.94	µg/m3	1	11/10/2020 07:57 PM
<b>Carbon disulfide</b>	<b>1.65</b>		<b>1.56</b>	<b>µg/m3</b>	1	11/10/2020 07:57 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	11/10/2020 07:57 PM
Chlorobenzene	ND		2.30	µg/m3	1	11/10/2020 07:57 PM
Chloroethane	ND		1.32	µg/m3	1	11/10/2020 07:57 PM
Chloroform	ND		0.976	µg/m3	1	11/10/2020 07:57 PM
Chloromethane	ND		1.03	µg/m3	1	11/10/2020 07:57 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/10/2020 07:57 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/10/2020 07:57 PM
Cumene	ND		2.46	µg/m3	1	11/10/2020 07:57 PM
<b>Cyclohexane</b>	<b>4.72</b>		<b>1.72</b>	<b>µg/m3</b>	1	11/10/2020 07:57 PM
Dibromochloromethane	ND		4.26	µg/m3	1	11/10/2020 07:57 PM
<b>Dichlorodifluoromethane</b>	<b>6.23</b>		<b>2.47</b>	<b>µg/m3</b>	1	11/10/2020 07:57 PM
Ethyl acetate	ND		1.80	µg/m3	1	11/10/2020 07:57 PM
<b>Ethylbenzene</b>	<b>9.08</b>		<b>0.300</b>	<b>µg/m3</b>	1	11/10/2020 07:57 PM
Freon 113	ND		3.83	µg/m3	1	11/10/2020 07:57 PM
Freon 114	ND		3.50	µg/m3	1	11/10/2020 07:57 PM
<b>Heptane</b>	<b>15.0</b>		<b>2.05</b>	<b>µg/m3</b>	1	11/10/2020 07:57 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	11/10/2020 07:57 PM
<b>Hexane</b>	<b>12.1</b>		<b>1.76</b>	<b>µg/m3</b>	1	11/10/2020 07:57 PM
<b>m,p-Xylene</b>	<b>14.6</b>		<b>2.17</b>	<b>µg/m3</b>	1	11/10/2020 07:57 PM
Methylene chloride	ND		7.00	µg/m3	1	11/10/2020 07:57 PM
MTBE	ND		1.80	µg/m3	1	11/10/2020 07:57 PM
<b>Naphthalene</b>	<b>2.04</b>		<b>0.540</b>	<b>µg/m3</b>	1	11/10/2020 07:57 PM
<b>o-Xylene</b>	<b>7.08</b>		<b>2.17</b>	<b>µg/m3</b>	1	11/10/2020 07:57 PM
Propene	ND		0.861	µg/m3	1	11/10/2020 07:57 PM
Styrene	ND		2.13	µg/m3	1	11/10/2020 07:57 PM
<b>Tetrachloroethene</b>	<b>4.41</b>		<b>3.39</b>	<b>µg/m3</b>	1	11/10/2020 07:57 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	11/10/2020 07:57 PM

### Note:

ALS Environmental

Date: 20-Nov-20

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** SV-15

Lab ID: 20101133-11

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	20.0		1.88	µg/m3	1	11/10/2020 07:57 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/10/2020 07:57 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/10/2020 07:57 PM
Trichloroethene	ND		0.330	µg/m3	1	11/10/2020 07:57 PM
<b>Trichlorofluoromethane</b>	<b>3.31</b>		<b>2.81</b>	<b>µg/m3</b>	1	11/10/2020 07:57 PM
Vinyl acetate	ND		1.76	µg/m3	1	11/10/2020 07:57 PM
Vinyl chloride	ND		1.28	µg/m3	1	11/10/2020 07:57 PM
<i>Surr: Bromofluorobenzene</i>	103		60-140	%REC	1	11/10/2020 07:57 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** IA-6

Lab ID: 20101133-12

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>TO-15 BY GC/MS</b>			<b>ETO-15</b>			Analyst: <b>MRJ</b>
1,1,1-Trichloroethane	ND		0.50	ppbv	1	11/9/2020 08:32 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	11/9/2020 08:32 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	11/9/2020 08:32 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	11/9/2020 08:32 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 08:32 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	11/9/2020 08:32 PM
1,2,4-Trimethylbenzene	ND		0.50	ppbv	1	11/9/2020 08:32 PM
1,2-Dibromoethane	ND		0.20	ppbv	1	11/9/2020 08:32 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	11/9/2020 08:32 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	11/9/2020 08:32 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	11/9/2020 08:32 PM
1,3,5-Trimethylbenzene	ND		0.50	ppbv	1	11/9/2020 08:32 PM
1,3-Butadiene	ND		0.50	ppbv	1	11/9/2020 08:32 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	1	11/9/2020 08:32 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	1	11/9/2020 08:32 PM
1,4-Dioxane	ND		1.0	ppbv	1	11/9/2020 08:32 PM
2-Butanone	ND		1.0	ppbv	1	11/9/2020 08:32 PM
2-Hexanone	ND		1.0	ppbv	1	11/9/2020 08:32 PM
<b>2-Propanol</b>	<b>3.0</b>		<b>1.0</b>	<b>ppbv</b>	1	11/9/2020 08:32 PM
4-Ethyltoluene	ND		0.50	ppbv	1	11/9/2020 08:32 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	11/9/2020 08:32 PM
<b>Acetone</b>	<b>18</b>		<b>1.0</b>	<b>ppbv</b>	1	11/9/2020 08:32 PM
<b>Benzene</b>	<b>0.24</b>		<b>0.017</b>	<b>ppbv</b>	1	11/9/2020 08:32 PM
Benzyl chloride	ND		1.0	ppbv	1	11/9/2020 08:32 PM
Bromodichloromethane	ND		0.50	ppbv	1	11/9/2020 08:32 PM
Bromoform	ND		0.50	ppbv	1	11/9/2020 08:32 PM
Bromomethane	ND		0.50	ppbv	1	11/9/2020 08:32 PM
Carbon disulfide	ND		0.50	ppbv	1	11/9/2020 08:32 PM
Carbon tetrachloride	ND		0.50	ppbv	1	11/9/2020 08:32 PM
Chlorobenzene	ND		0.50	ppbv	1	11/9/2020 08:32 PM
Chloroethane	ND		0.50	ppbv	1	11/9/2020 08:32 PM
Chloroform	ND		0.20	ppbv	1	11/9/2020 08:32 PM
<b>Chloromethane</b>	<b>0.63</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 08:32 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 08:32 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	11/9/2020 08:32 PM
Cumene	ND		0.50	ppbv	1	11/9/2020 08:32 PM
Cyclohexane	ND		0.50	ppbv	1	11/9/2020 08:32 PM
Dibromochloromethane	ND		0.50	ppbv	1	11/9/2020 08:32 PM
Dichlorodifluoromethane	ND		0.50	ppbv	1	11/9/2020 08:32 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** IA-6

Lab ID: 20101133-12

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	11/9/2020 08:32 PM
<b>Ethylbenzene</b>	<b>0.12</b>		<b>0.070</b>	<b>ppbv</b>	1	11/9/2020 08:32 PM
Freon 113	ND		0.50	ppbv	1	11/9/2020 08:32 PM
Freon 114	ND		0.50	ppbv	1	11/9/2020 08:32 PM
<b>Heptane</b>	<b>0.64</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 08:32 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	11/9/2020 08:32 PM
<b>Hexane</b>	<b>1.3</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 08:32 PM
m,p-Xylene	ND		0.50	ppbv	1	11/9/2020 08:32 PM
Methylene chloride	ND		2.0	ppbv	1	11/9/2020 08:32 PM
MTBE	ND		0.50	ppbv	1	11/9/2020 08:32 PM
Naphthalene	ND		0.10	ppbv	1	11/9/2020 08:32 PM
o-Xylene	ND		0.50	ppbv	1	11/9/2020 08:32 PM
Propene	ND		0.50	ppbv	1	11/9/2020 08:32 PM
Styrene	ND		0.50	ppbv	1	11/9/2020 08:32 PM
Tetrachloroethene	ND		0.50	ppbv	1	11/9/2020 08:32 PM
Tetrahydrofuran	ND		0.50	ppbv	1	11/9/2020 08:32 PM
<b>Toluene</b>	<b>0.68</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 08:32 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 08:32 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	11/9/2020 08:32 PM
Trichloroethene	ND		0.062	ppbv	1	11/9/2020 08:32 PM
<b>Trichlorofluoromethane</b>	<b>0.60</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 08:32 PM
Vinyl acetate	ND		0.50	ppbv	1	11/9/2020 08:32 PM
Vinyl chloride	ND		0.50	ppbv	1	11/9/2020 08:32 PM
Surr: Bromofluorobenzene	103		60-140	%REC	1	11/9/2020 08:32 PM
<b>TO-15 BY GC/MS</b>		<b>ETO-15</b>		Analyst: <b>MRJ</b>		
1,1,1-Trichloroethane	ND		2.73	µg/m3	1	11/9/2020 08:32 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	11/9/2020 08:32 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	11/9/2020 08:32 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	11/9/2020 08:32 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 08:32 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	11/9/2020 08:32 PM
1,2,4-Trimethylbenzene	ND		2.46	µg/m3	1	11/9/2020 08:32 PM
1,2-Dibromoethane	ND		1.54	µg/m3	1	11/9/2020 08:32 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	11/9/2020 08:32 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	11/9/2020 08:32 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	11/9/2020 08:32 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m3	1	11/9/2020 08:32 PM
1,3-Butadiene	ND		1.11	µg/m3	1	11/9/2020 08:32 PM
1,3-Dichlorobenzene	ND		6.01	µg/m3	1	11/9/2020 08:32 PM
1,4-Dichlorobenzene	ND		6.01	µg/m3	1	11/9/2020 08:32 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** IA-6

Lab ID: 20101133-12

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	11/9/2020 08:32 PM
2-Butanone	ND		2.95	µg/m3	1	11/9/2020 08:32 PM
2-Hexanone	ND		4.10	µg/m3	1	11/9/2020 08:32 PM
<b>2-Propanol</b>	<b>7.28</b>		<b>2.46</b>	<b>µg/m3</b>	1	11/9/2020 08:32 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	11/9/2020 08:32 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	11/9/2020 08:32 PM
<b>Acetone</b>	<b>43.0</b>		<b>2.38</b>	<b>µg/m3</b>	1	11/9/2020 08:32 PM
<b>Benzene</b>	<b>0.767</b>		<b>0.0540</b>	<b>µg/m3</b>	1	11/9/2020 08:32 PM
Benzyl chloride	ND		5.18	µg/m3	1	11/9/2020 08:32 PM
Bromodichloromethane	ND		3.35	µg/m3	1	11/9/2020 08:32 PM
Bromoform	ND		5.17	µg/m3	1	11/9/2020 08:32 PM
Bromomethane	ND		1.94	µg/m3	1	11/9/2020 08:32 PM
Carbon disulfide	ND		1.56	µg/m3	1	11/9/2020 08:32 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	11/9/2020 08:32 PM
Chlorobenzene	ND		2.30	µg/m3	1	11/9/2020 08:32 PM
Chloroethane	ND		1.32	µg/m3	1	11/9/2020 08:32 PM
Chloroform	ND		0.976	µg/m3	1	11/9/2020 08:32 PM
<b>Chloromethane</b>	<b>1.30</b>		<b>1.03</b>	<b>µg/m3</b>	1	11/9/2020 08:32 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 08:32 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/9/2020 08:32 PM
Cumene	ND		2.46	µg/m3	1	11/9/2020 08:32 PM
Cyclohexane	ND		1.72	µg/m3	1	11/9/2020 08:32 PM
Dibromochloromethane	ND		4.26	µg/m3	1	11/9/2020 08:32 PM
Dichlorodifluoromethane	ND		2.47	µg/m3	1	11/9/2020 08:32 PM
Ethyl acetate	ND		1.80	µg/m3	1	11/9/2020 08:32 PM
<b>Ethylbenzene</b>	<b>0.521</b>		<b>0.300</b>	<b>µg/m3</b>	1	11/9/2020 08:32 PM
Freon 113	ND		3.83	µg/m3	1	11/9/2020 08:32 PM
Freon 114	ND		3.50	µg/m3	1	11/9/2020 08:32 PM
<b>Heptane</b>	<b>2.62</b>		<b>2.05</b>	<b>µg/m3</b>	1	11/9/2020 08:32 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	11/9/2020 08:32 PM
<b>Hexane</b>	<b>4.65</b>		<b>1.76</b>	<b>µg/m3</b>	1	11/9/2020 08:32 PM
m,p-Xylene	ND		2.17	µg/m3	1	11/9/2020 08:32 PM
Methylene chloride	ND		7.00	µg/m3	1	11/9/2020 08:32 PM
MTBE	ND		1.80	µg/m3	1	11/9/2020 08:32 PM
Naphthalene	ND		0.540	µg/m3	1	11/9/2020 08:32 PM
o-Xylene	ND		2.17	µg/m3	1	11/9/2020 08:32 PM
Propene	ND		0.861	µg/m3	1	11/9/2020 08:32 PM
Styrene	ND		2.13	µg/m3	1	11/9/2020 08:32 PM
Tetrachloroethene	ND		3.39	µg/m3	1	11/9/2020 08:32 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	11/9/2020 08:32 PM

### Note:

ALS Environmental

Date: 20-Nov-20

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** IA-6

Lab ID: 20101133-12

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	2.56		1.88	µg/m3	1	11/9/2020 08:32 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 08:32 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/9/2020 08:32 PM
Trichloroethene	ND		0.330	µg/m3	1	11/9/2020 08:32 PM
<b>Trichlorofluoromethane</b>	<b>3.37</b>		<b>2.81</b>	<b>µg/m3</b>	1	11/9/2020 08:32 PM
Vinyl acetate	ND		1.76	µg/m3	1	11/9/2020 08:32 PM
Vinyl chloride	ND		1.28	µg/m3	1	11/9/2020 08:32 PM
<i>Surr: Bromofluorobenzene</i>	103		60-140	%REC	1	11/9/2020 08:32 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** AA-I

Lab ID: 20101133-13

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>TO-15 BY GC/MS</b>			<b>ETO-15</b>			Analyst: <b>MRJ</b>
1,1,1-Trichloroethane	ND		0.50	ppbv	1	11/9/2020 09:17 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	11/9/2020 09:17 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	11/9/2020 09:17 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	11/9/2020 09:17 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 09:17 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	11/9/2020 09:17 PM
1,2,4-Trimethylbenzene	ND		0.50	ppbv	1	11/9/2020 09:17 PM
1,2-Dibromoethane	ND		0.20	ppbv	1	11/9/2020 09:17 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	11/9/2020 09:17 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	11/9/2020 09:17 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	11/9/2020 09:17 PM
1,3,5-Trimethylbenzene	ND		0.50	ppbv	1	11/9/2020 09:17 PM
1,3-Butadiene	ND		0.50	ppbv	1	11/9/2020 09:17 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	1	11/9/2020 09:17 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	1	11/9/2020 09:17 PM
1,4-Dioxane	ND		1.0	ppbv	1	11/9/2020 09:17 PM
2-Butanone	ND		1.0	ppbv	1	11/9/2020 09:17 PM
2-Hexanone	ND		1.0	ppbv	1	11/9/2020 09:17 PM
<b>2-Propanol</b>	<b>4.8</b>		<b>1.0</b>	<b>ppbv</b>	1	11/9/2020 09:17 PM
4-Ethyltoluene	ND		0.50	ppbv	1	11/9/2020 09:17 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	11/9/2020 09:17 PM
<b>Acetone</b>	<b>22</b>		<b>1.0</b>	<b>ppbv</b>	1	11/9/2020 09:17 PM
<b>Benzene</b>	<b>0.25</b>		<b>0.017</b>	<b>ppbv</b>	1	11/9/2020 09:17 PM
Benzyl chloride	ND		1.0	ppbv	1	11/9/2020 09:17 PM
Bromodichloromethane	ND		0.50	ppbv	1	11/9/2020 09:17 PM
Bromoform	ND		0.50	ppbv	1	11/9/2020 09:17 PM
Bromomethane	ND		0.50	ppbv	1	11/9/2020 09:17 PM
Carbon disulfide	ND		0.50	ppbv	1	11/9/2020 09:17 PM
Carbon tetrachloride	ND		0.50	ppbv	1	11/9/2020 09:17 PM
Chlorobenzene	ND		0.50	ppbv	1	11/9/2020 09:17 PM
Chloroethane	ND		0.50	ppbv	1	11/9/2020 09:17 PM
Chloroform	ND		0.20	ppbv	1	11/9/2020 09:17 PM
<b>Chloromethane</b>	<b>0.60</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 09:17 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 09:17 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	11/9/2020 09:17 PM
Cumene	ND		0.50	ppbv	1	11/9/2020 09:17 PM
Cyclohexane	ND		0.50	ppbv	1	11/9/2020 09:17 PM
Dibromochloromethane	ND		0.50	ppbv	1	11/9/2020 09:17 PM
Dichlorodifluoromethane	ND		0.50	ppbv	1	11/9/2020 09:17 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** AA-I

Lab ID: 20101133-13

**Collection Date:** 10/28/2020

## Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	11/9/2020 09:17 PM
<b>Ethylbenzene</b>	<b>0.12</b>		<b>0.070</b>	<b>ppbv</b>	1	11/9/2020 09:17 PM
Freon 113	ND		0.50	ppbv	1	11/9/2020 09:17 PM
Freon 114	ND		0.50	ppbv	1	11/9/2020 09:17 PM
<b>Heptane</b>	<b>0.67</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 09:17 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	11/9/2020 09:17 PM
<b>Hexane</b>	<b>1.4</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 09:17 PM
m,p-Xylene	ND		0.50	ppbv	1	11/9/2020 09:17 PM
Methylene chloride	ND		2.0	ppbv	1	11/9/2020 09:17 PM
MTBE	ND		0.50	ppbv	1	11/9/2020 09:17 PM
<b>Naphthalene</b>	<b>0.15</b>	B	<b>0.10</b>	<b>ppbv</b>	1	11/9/2020 09:17 PM
o-Xylene	ND		0.50	ppbv	1	11/9/2020 09:17 PM
Propene	ND		0.50	ppbv	1	11/9/2020 09:17 PM
Styrene	ND		0.50	ppbv	1	11/9/2020 09:17 PM
Tetrachloroethene	ND		0.50	ppbv	1	11/9/2020 09:17 PM
Tetrahydrofuran	ND		0.50	ppbv	1	11/9/2020 09:17 PM
<b>Toluene</b>	<b>0.78</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 09:17 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 09:17 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	11/9/2020 09:17 PM
Trichloroethene	ND		0.062	ppbv	1	11/9/2020 09:17 PM
Trichlorofluoromethane	ND		0.50	ppbv	1	11/9/2020 09:17 PM
Vinyl acetate	ND		0.50	ppbv	1	11/9/2020 09:17 PM
Vinyl chloride	ND		0.50	ppbv	1	11/9/2020 09:17 PM
Surr: Bromofluorobenzene	101		60-140	%REC	1	11/9/2020 09:17 PM
<b>TO-15 BY GC/MS</b>		<b>ETO-15</b>		Analyst: <b>MRJ</b>		
1,1,1-Trichloroethane	ND		2.73	µg/m3	1	11/9/2020 09:17 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	11/9/2020 09:17 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	11/9/2020 09:17 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	11/9/2020 09:17 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 09:17 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	11/9/2020 09:17 PM
1,2,4-Trimethylbenzene	ND		2.46	µg/m3	1	11/9/2020 09:17 PM
1,2-Dibromoethane	ND		1.54	µg/m3	1	11/9/2020 09:17 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	11/9/2020 09:17 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	11/9/2020 09:17 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	11/9/2020 09:17 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m3	1	11/9/2020 09:17 PM
1,3-Butadiene	ND		1.11	µg/m3	1	11/9/2020 09:17 PM
1,3-Dichlorobenzene	ND		6.01	µg/m3	1	11/9/2020 09:17 PM
1,4-Dichlorobenzene	ND		6.01	µg/m3	1	11/9/2020 09:17 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** AA-I

Lab ID: 20101133-13

**Collection Date:** 10/28/2020

## Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	11/9/2020 09:17 PM
2-Butanone	ND		2.95	µg/m3	1	11/9/2020 09:17 PM
2-Hexanone	ND		4.10	µg/m3	1	11/9/2020 09:17 PM
<b>2-Propanol</b>	<b>11.7</b>		<b>2.46</b>	<b>µg/m3</b>	1	11/9/2020 09:17 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	11/9/2020 09:17 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	11/9/2020 09:17 PM
<b>Acetone</b>	<b>52.8</b>		<b>2.38</b>	<b>µg/m3</b>	1	11/9/2020 09:17 PM
<b>Benzene</b>	<b>0.799</b>		<b>0.0540</b>	<b>µg/m3</b>	1	11/9/2020 09:17 PM
Benzyl chloride	ND		5.18	µg/m3	1	11/9/2020 09:17 PM
Bromodichloromethane	ND		3.35	µg/m3	1	11/9/2020 09:17 PM
Bromoform	ND		5.17	µg/m3	1	11/9/2020 09:17 PM
Bromomethane	ND		1.94	µg/m3	1	11/9/2020 09:17 PM
Carbon disulfide	ND		1.56	µg/m3	1	11/9/2020 09:17 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	11/9/2020 09:17 PM
Chlorobenzene	ND		2.30	µg/m3	1	11/9/2020 09:17 PM
Chloroethane	ND		1.32	µg/m3	1	11/9/2020 09:17 PM
Chloroform	ND		0.976	µg/m3	1	11/9/2020 09:17 PM
<b>Chloromethane</b>	<b>1.24</b>		<b>1.03</b>	<b>µg/m3</b>	1	11/9/2020 09:17 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 09:17 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/9/2020 09:17 PM
Cumene	ND		2.46	µg/m3	1	11/9/2020 09:17 PM
Cyclohexane	ND		1.72	µg/m3	1	11/9/2020 09:17 PM
Dibromochloromethane	ND		4.26	µg/m3	1	11/9/2020 09:17 PM
Dichlorodifluoromethane	ND		2.47	µg/m3	1	11/9/2020 09:17 PM
Ethyl acetate	ND		1.80	µg/m3	1	11/9/2020 09:17 PM
<b>Ethylbenzene</b>	<b>0.521</b>		<b>0.300</b>	<b>µg/m3</b>	1	11/9/2020 09:17 PM
Freon 113	ND		3.83	µg/m3	1	11/9/2020 09:17 PM
Freon 114	ND		3.50	µg/m3	1	11/9/2020 09:17 PM
<b>Heptane</b>	<b>2.75</b>		<b>2.05</b>	<b>µg/m3</b>	1	11/9/2020 09:17 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	11/9/2020 09:17 PM
<b>Hexane</b>	<b>4.86</b>		<b>1.76</b>	<b>µg/m3</b>	1	11/9/2020 09:17 PM
m,p-Xylene	ND		2.17	µg/m3	1	11/9/2020 09:17 PM
Methylene chloride	ND		7.00	µg/m3	1	11/9/2020 09:17 PM
MTBE	ND		1.80	µg/m3	1	11/9/2020 09:17 PM
<b>Naphthalene</b>	<b>0.786</b>		<b>0.540</b>	<b>µg/m3</b>	1	11/9/2020 09:17 PM
o-Xylene	ND		2.17	µg/m3	1	11/9/2020 09:17 PM
Propene	ND		0.861	µg/m3	1	11/9/2020 09:17 PM
Styrene	ND		2.13	µg/m3	1	11/9/2020 09:17 PM
Tetrachloroethene	ND		3.39	µg/m3	1	11/9/2020 09:17 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	11/9/2020 09:17 PM

### Note:

ALS Environmental

Date: 20-Nov-20

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** AA-I

Lab ID: 20101133-13

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	2.94		1.88	µg/m3	1	11/9/2020 09:17 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 09:17 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/9/2020 09:17 PM
Trichloroethene	ND		0.330	µg/m3	1	11/9/2020 09:17 PM
Trichlorofluoromethane	ND		2.81	µg/m3	1	11/9/2020 09:17 PM
Vinyl acetate	ND		1.76	µg/m3	1	11/9/2020 09:17 PM
Vinyl chloride	ND		1.28	µg/m3	1	11/9/2020 09:17 PM
<i>Surr: Bromofluorobenzene</i>	101		60-140	%REC	1	11/9/2020 09:17 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** AA-0

Lab ID: 20101133-14

**Collection Date:** 10/28/2020

## Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>TO-15 BY GC/MS</b>			<b>ETO-15</b>			Analyst: <b>MRJ</b>
1,1,1-Trichloroethane	ND		0.50	ppbv	1	11/9/2020 10:02 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	11/9/2020 10:02 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	11/9/2020 10:02 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	11/9/2020 10:02 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 10:02 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	11/9/2020 10:02 PM
1,2,4-Trimethylbenzene	ND		0.50	ppbv	1	11/9/2020 10:02 PM
1,2-Dibromoethane	ND		0.20	ppbv	1	11/9/2020 10:02 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	11/9/2020 10:02 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	11/9/2020 10:02 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	11/9/2020 10:02 PM
1,3,5-Trimethylbenzene	ND		0.50	ppbv	1	11/9/2020 10:02 PM
1,3-Butadiene	ND		0.50	ppbv	1	11/9/2020 10:02 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	1	11/9/2020 10:02 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	1	11/9/2020 10:02 PM
1,4-Dioxane	ND		1.0	ppbv	1	11/9/2020 10:02 PM
2-Butanone	ND		1.0	ppbv	1	11/9/2020 10:02 PM
2-Hexanone	ND		1.0	ppbv	1	11/9/2020 10:02 PM
2-Propanol	ND		1.0	ppbv	1	11/9/2020 10:02 PM
4-Ethyltoluene	ND		0.50	ppbv	1	11/9/2020 10:02 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	11/9/2020 10:02 PM
<b>Acetone</b>	<b>4.0</b>		<b>1.0</b>	<b>ppbv</b>	1	11/9/2020 10:02 PM
<b>Benzene</b>	<b>0.23</b>		<b>0.017</b>	<b>ppbv</b>	1	11/9/2020 10:02 PM
Benzyl chloride	ND		1.0	ppbv	1	11/9/2020 10:02 PM
Bromodichloromethane	ND		0.50	ppbv	1	11/9/2020 10:02 PM
Bromoform	ND		0.50	ppbv	1	11/9/2020 10:02 PM
Bromomethane	ND		0.50	ppbv	1	11/9/2020 10:02 PM
Carbon disulfide	ND		0.50	ppbv	1	11/9/2020 10:02 PM
Carbon tetrachloride	ND		0.50	ppbv	1	11/9/2020 10:02 PM
Chlorobenzene	ND		0.50	ppbv	1	11/9/2020 10:02 PM
Chloroethane	ND		0.50	ppbv	1	11/9/2020 10:02 PM
Chloroform	ND		0.20	ppbv	1	11/9/2020 10:02 PM
<b>Chloromethane</b>	<b>0.61</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 10:02 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 10:02 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	11/9/2020 10:02 PM
Cumene	ND		0.50	ppbv	1	11/9/2020 10:02 PM
Cyclohexane	ND		0.50	ppbv	1	11/9/2020 10:02 PM
Dibromochloromethane	ND		0.50	ppbv	1	11/9/2020 10:02 PM
<b>Dichlorodifluoromethane</b>	<b>0.58</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 10:02 PM

### Note:

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** AA-0

Lab ID: 20101133-14

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	11/9/2020 10:02 PM
<b>Ethylbenzene</b>	<b>0.090</b>		<b>0.070</b>	<b>ppbv</b>	1	11/9/2020 10:02 PM
Freon 113	ND		0.50	ppbv	1	11/9/2020 10:02 PM
Freon 114	ND		0.50	ppbv	1	11/9/2020 10:02 PM
Heptane	ND		0.50	ppbv	1	11/9/2020 10:02 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	11/9/2020 10:02 PM
Hexane	ND		0.50	ppbv	1	11/9/2020 10:02 PM
m,p-Xylene	ND		0.50	ppbv	1	11/9/2020 10:02 PM
Methylene chloride	ND		2.0	ppbv	1	11/9/2020 10:02 PM
MTBE	ND		0.50	ppbv	1	11/9/2020 10:02 PM
Naphthalene	ND		0.10	ppbv	1	11/9/2020 10:02 PM
o-Xylene	ND		0.50	ppbv	1	11/9/2020 10:02 PM
Propene	ND		0.50	ppbv	1	11/9/2020 10:02 PM
Styrene	ND		0.50	ppbv	1	11/9/2020 10:02 PM
Tetrachloroethene	ND		0.50	ppbv	1	11/9/2020 10:02 PM
Tetrahydrofuran	ND		0.50	ppbv	1	11/9/2020 10:02 PM
<b>Toluene</b>	<b>0.99</b>		<b>0.50</b>	<b>ppbv</b>	1	11/9/2020 10:02 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	11/9/2020 10:02 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	11/9/2020 10:02 PM
Trichloroethene	ND		0.062	ppbv	1	11/9/2020 10:02 PM
Trichlorofluoromethane	ND		0.50	ppbv	1	11/9/2020 10:02 PM
Vinyl acetate	ND		0.50	ppbv	1	11/9/2020 10:02 PM
Vinyl chloride	ND		0.50	ppbv	1	11/9/2020 10:02 PM
Surr: Bromofluorobenzene	100		60-140	%REC	1	11/9/2020 10:02 PM
<b>TO-15 BY GC/MS</b>		<b>ETO-15</b>		Analyst: <b>MRJ</b>		
1,1,1-Trichloroethane	ND		2.73	µg/m3	1	11/9/2020 10:02 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	11/9/2020 10:02 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	11/9/2020 10:02 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	11/9/2020 10:02 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 10:02 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	11/9/2020 10:02 PM
1,2,4-Trimethylbenzene	ND		2.46	µg/m3	1	11/9/2020 10:02 PM
1,2-Dibromoethane	ND		1.54	µg/m3	1	11/9/2020 10:02 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	11/9/2020 10:02 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	11/9/2020 10:02 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	11/9/2020 10:02 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m3	1	11/9/2020 10:02 PM
1,3-Butadiene	ND		1.11	µg/m3	1	11/9/2020 10:02 PM
1,3-Dichlorobenzene	ND		6.01	µg/m3	1	11/9/2020 10:02 PM
1,4-Dichlorobenzene	ND		6.01	µg/m3	1	11/9/2020 10:02 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** AA-0

Lab ID: 20101133-14

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	11/9/2020 10:02 PM
2-Butanone	ND		2.95	µg/m3	1	11/9/2020 10:02 PM
2-Hexanone	ND		4.10	µg/m3	1	11/9/2020 10:02 PM
2-Propanol	ND		2.46	µg/m3	1	11/9/2020 10:02 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	11/9/2020 10:02 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	11/9/2020 10:02 PM
<b>Acetone</b>	<b>9.62</b>		<b>2.38</b>	<b>µg/m3</b>	1	11/9/2020 10:02 PM
<b>Benzene</b>	<b>0.735</b>		<b>0.0540</b>	<b>µg/m3</b>	1	11/9/2020 10:02 PM
Benzyl chloride	ND		5.18	µg/m3	1	11/9/2020 10:02 PM
Bromodichloromethane	ND		3.35	µg/m3	1	11/9/2020 10:02 PM
Bromoform	ND		5.17	µg/m3	1	11/9/2020 10:02 PM
Bromomethane	ND		1.94	µg/m3	1	11/9/2020 10:02 PM
Carbon disulfide	ND		1.56	µg/m3	1	11/9/2020 10:02 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	11/9/2020 10:02 PM
Chlorobenzene	ND		2.30	µg/m3	1	11/9/2020 10:02 PM
Chloroethane	ND		1.32	µg/m3	1	11/9/2020 10:02 PM
Chloroform	ND		0.976	µg/m3	1	11/9/2020 10:02 PM
<b>Chloromethane</b>	<b>1.26</b>		<b>1.03</b>	<b>µg/m3</b>	1	11/9/2020 10:02 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 10:02 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/9/2020 10:02 PM
Cumene	ND		2.46	µg/m3	1	11/9/2020 10:02 PM
Cyclohexane	ND		1.72	µg/m3	1	11/9/2020 10:02 PM
Dibromochloromethane	ND		4.26	µg/m3	1	11/9/2020 10:02 PM
<b>Dichlorodifluoromethane</b>	<b>2.87</b>		<b>2.47</b>	<b>µg/m3</b>	1	11/9/2020 10:02 PM
Ethyl acetate	ND		1.80	µg/m3	1	11/9/2020 10:02 PM
<b>Ethylbenzene</b>	<b>0.391</b>		<b>0.300</b>	<b>µg/m3</b>	1	11/9/2020 10:02 PM
Freon 113	ND		3.83	µg/m3	1	11/9/2020 10:02 PM
Freon 114	ND		3.50	µg/m3	1	11/9/2020 10:02 PM
Heptane	ND		2.05	µg/m3	1	11/9/2020 10:02 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	11/9/2020 10:02 PM
Hexane	ND		1.76	µg/m3	1	11/9/2020 10:02 PM
m,p-Xylene	ND		2.17	µg/m3	1	11/9/2020 10:02 PM
Methylene chloride	ND		7.00	µg/m3	1	11/9/2020 10:02 PM
MTBE	ND		1.80	µg/m3	1	11/9/2020 10:02 PM
Naphthalene	ND		0.540	µg/m3	1	11/9/2020 10:02 PM
o-Xylene	ND		2.17	µg/m3	1	11/9/2020 10:02 PM
Propene	ND		0.861	µg/m3	1	11/9/2020 10:02 PM
Styrene	ND		2.13	µg/m3	1	11/9/2020 10:02 PM
Tetrachloroethene	ND		3.39	µg/m3	1	11/9/2020 10:02 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	11/9/2020 10:02 PM

### Note:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	3.73		1.88	µg/m3	1	11/9/2020 10:02 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/9/2020 10:02 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/9/2020 10:02 PM
Trichloroethene	ND		0.330	µg/m3	1	11/9/2020 10:02 PM
Trichlorofluoromethane	ND		2.81	µg/m3	1	11/9/2020 10:02 PM
Vinyl acetate	ND		1.76	µg/m3	1	11/9/2020 10:02 PM
Vinyl chloride	ND		1.28	µg/m3	1	11/9/2020 10:02 PM
<i>Surr:</i> Bromofluorobenzene	100		60-140	%REC	1	11/9/2020 10:02 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** DUPLICATE

Lab ID: 20101133-15

**Collection Date:** 10/28/2020

## Matrix: AIR

### Note:

ALS Environmental

**Date:** 20-Nov-20

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** DUPLICATE

Lab ID: 20101133-15

**Collection Date:** 10/28/2020

## Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	11/10/2020 04:55 PM
<b>Ethylbenzene</b>	<b>2.1</b>		<b>0.070</b>	<b>ppbv</b>	1	11/10/2020 04:55 PM
Freon 113	ND		0.50	ppbv	1	11/10/2020 04:55 PM
Freon 114	ND		0.50	ppbv	1	11/10/2020 04:55 PM
<b>Heptane</b>	<b>0.53</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 04:55 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	11/10/2020 04:55 PM
<b>Hexane</b>	<b>0.59</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 04:55 PM
<b>m,p-Xylene</b>	<b>3.3</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 04:55 PM
Methylene chloride	ND		2.0	ppbv	1	11/10/2020 04:55 PM
MTBE	ND		0.50	ppbv	1	11/10/2020 04:55 PM
<b>Naphthalene</b>	<b>0.35</b>		<b>0.10</b>	<b>ppbv</b>	1	11/10/2020 04:55 PM
<b>o-Xylene</b>	<b>2.9</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 04:55 PM
Propene	ND		0.50	ppbv	1	11/10/2020 04:55 PM
Styrene	ND		0.50	ppbv	1	11/10/2020 04:55 PM
Tetrachloroethene	ND		0.50	ppbv	1	11/10/2020 04:55 PM
Tetrahydrofuran	ND		0.50	ppbv	1	11/10/2020 04:55 PM
<b>Toluene</b>	<b>0.96</b>		<b>0.50</b>	<b>ppbv</b>	1	11/10/2020 04:55 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	11/10/2020 04:55 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	11/10/2020 04:55 PM
Trichloroethene	ND		0.062	ppbv	1	11/10/2020 04:55 PM
Trichlorofluoromethane	ND		0.50	ppbv	1	11/10/2020 04:55 PM
Vinyl acetate	ND		0.50	ppbv	1	11/10/2020 04:55 PM
Vinyl chloride	ND		0.50	ppbv	1	11/10/2020 04:55 PM
Surr: Bromofluorobenzene	105		60-140	%REC	1	11/10/2020 04:55 PM
<b>TO-15 BY GC/MS</b>						
			<b>ETO-15</b>			<b>Analyst: MRJ</b>
1,1,1-Trichloroethane	ND		2.73	µg/m³	1	11/10/2020 04:55 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m³	1	11/10/2020 04:55 PM
1,1,2-Trichloroethane	ND		2.73	µg/m³	1	11/10/2020 04:55 PM
1,1-Dichloroethane	ND		2.02	µg/m³	1	11/10/2020 04:55 PM
1,1-Dichloroethene	ND		1.98	µg/m³	1	11/10/2020 04:55 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m³	1	11/10/2020 04:55 PM
<b>1,2,4-Trimethylbenzene</b>	<b>2.80</b>		<b>2.46</b>	<b>µg/m³</b>	1	11/10/2020 04:55 PM
1,2-Dibromoethane	ND		1.54	µg/m³	1	11/10/2020 04:55 PM
1,2-Dichlorobenzene	ND		3.01	µg/m³	1	11/10/2020 04:55 PM
1,2-Dichloroethane	ND		2.02	µg/m³	1	11/10/2020 04:55 PM
1,2-Dichloropropane	ND		2.31	µg/m³	1	11/10/2020 04:55 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m³	1	11/10/2020 04:55 PM
1,3-Butadiene	ND		1.11	µg/m³	1	11/10/2020 04:55 PM
1,3-Dichlorobenzene	ND		6.01	µg/m³	1	11/10/2020 04:55 PM
1,4-Dichlorobenzene	ND		6.01	µg/m³	1	11/10/2020 04:55 PM

**Note:**

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** DUPLICATE

Lab ID: 20101133-15

**Collection Date:** 10/28/2020

## **Matrix: AIR**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	11/10/2020 04:55 PM
<b>2-Butanone</b>	<b>6.75</b>		<b>2.95</b>	<b>µg/m3</b>	1	11/10/2020 04:55 PM
2-Hexanone	ND		4.10	µg/m3	1	11/10/2020 04:55 PM
<b>2-Propanol</b>	<b>6.69</b>		<b>2.46</b>	<b>µg/m3</b>	1	11/10/2020 04:55 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	11/10/2020 04:55 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	11/10/2020 04:55 PM
<b>Acetone</b>	<b>106</b>	E	<b>2.38</b>	<b>µg/m3</b>	1	11/10/2020 04:55 PM
Benzene	ND		0.0540	µg/m3	1	11/10/2020 04:55 PM
Benzyl chloride	ND		5.18	µg/m3	1	11/10/2020 04:55 PM
Bromodichloromethane	ND		3.35	µg/m3	1	11/10/2020 04:55 PM
Bromoform	ND		5.17	µg/m3	1	11/10/2020 04:55 PM
Bromomethane	ND		1.94	µg/m3	1	11/10/2020 04:55 PM
Carbon disulfide	ND		1.56	µg/m3	1	11/10/2020 04:55 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	11/10/2020 04:55 PM
Chlorobenzene	ND		2.30	µg/m3	1	11/10/2020 04:55 PM
Chloroethane	ND		1.32	µg/m3	1	11/10/2020 04:55 PM
Chloroform	ND		0.976	µg/m3	1	11/10/2020 04:55 PM
Chloromethane	ND		1.03	µg/m3	1	11/10/2020 04:55 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/10/2020 04:55 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/10/2020 04:55 PM
Cumene	ND		2.46	µg/m3	1	11/10/2020 04:55 PM
Cyclohexane	ND		1.72	µg/m3	1	11/10/2020 04:55 PM
Dibromochloromethane	ND		4.26	µg/m3	1	11/10/2020 04:55 PM
<b>Dichlorodifluoromethane</b>	<b>3.26</b>		<b>2.47</b>	<b>µg/m3</b>	1	11/10/2020 04:55 PM
Ethyl acetate	ND		1.80	µg/m3	1	11/10/2020 04:55 PM
<b>Ethylbenzene</b>	<b>8.99</b>		<b>0.300</b>	<b>µg/m3</b>	1	11/10/2020 04:55 PM
Freon 113	ND		3.83	µg/m3	1	11/10/2020 04:55 PM
Freon 114	ND		3.50	µg/m3	1	11/10/2020 04:55 PM
<b>Heptane</b>	<b>2.17</b>		<b>2.05</b>	<b>µg/m3</b>	1	11/10/2020 04:55 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	11/10/2020 04:55 PM
<b>Hexane</b>	<b>2.08</b>		<b>1.76</b>	<b>µg/m3</b>	1	11/10/2020 04:55 PM
<b>m,p-Xylene</b>	<b>14.2</b>		<b>2.17</b>	<b>µg/m3</b>	1	11/10/2020 04:55 PM
Methylene chloride	ND		7.00	µg/m3	1	11/10/2020 04:55 PM
MTBE	ND		1.80	µg/m3	1	11/10/2020 04:55 PM
<b>Naphthalene</b>	<b>1.83</b>		<b>0.540</b>	<b>µg/m3</b>	1	11/10/2020 04:55 PM
<b>o-Xylene</b>	<b>12.7</b>		<b>2.17</b>	<b>µg/m3</b>	1	11/10/2020 04:55 PM
Propene	ND		0.861	µg/m3	1	11/10/2020 04:55 PM
Styrene	ND		2.13	µg/m3	1	11/10/2020 04:55 PM
Tetrachloroethene	ND		3.39	µg/m3	1	11/10/2020 04:55 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	11/10/2020 04:55 PM

### Note:

ALS Environmental

Date: 20-Nov-20

**Client:** ATC Group Services LLC

**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN007      **Work Order:** 20101133

**Sample ID:** DUPLICATE

Lab ID: 20101133-15

**Collection Date:** 10/28/2020

## Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	<b>3.62</b>		<b>1.88</b>	µg/m3	1	11/10/2020 04:55 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	11/10/2020 04:55 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	11/10/2020 04:55 PM
Trichloroethene	ND		0.330	µg/m3	1	11/10/2020 04:55 PM
Trichlorofluoromethane	ND		2.81	µg/m3	1	11/10/2020 04:55 PM
Vinyl acetate	ND		1.76	µg/m3	1	11/10/2020 04:55 PM
Vinyl chloride	ND		1.28	µg/m3	1	11/10/2020 04:55 PM
<i>Surr:</i> Bromofluorobenzene	105		60-140	%REC	1	11/10/2020 04:55 PM

**Note:**

Client: ATC Group Services LLC

**QC BATCH REPORT**

Work Order: 20101133

Project: FORMER IRS PROPERTY COVINGTON, KY; 24

Batch ID: R183040

Instrument ID VMS4

Method: ETO-15

mblk	Sample ID: MBLK-R183040				Units: ppbv	Analysis Date: 11/9/2020 01:48 PM				
Client ID:	Run ID: VMS4_201109A				SeqNo: 2347415	Prep Date:	DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	0.50								
1,1,2,2-Tetrachloroethane	ND	0.50								
1,1,2-Trichloroethane	ND	0.50								
1,1-Dichloroethane	ND	0.50								
1,1-Dichloroethene	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.50								
1,2,4-Trimethylbenzene	ND	0.50								
1,2-Dibromoethane	ND	0.20								
1,2-Dichlorobenzene	ND	0.50								
1,2-Dichloroethane	ND	0.50								
1,2-Dichloropropane	ND	0.50								
1,3,5-Trimethylbenzene	ND	0.50								
1,3-Butadiene	ND	0.50								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
1,4-Dioxane	ND	1.0								
2-Butanone	ND	1.0								
2-Hexanone	ND	1.0								
2-Propanol	ND	1.0								
4-Ethyltoluene	ND	0.50								
4-Methyl-2-pentanone	ND	1.0								
Acetone	ND	1.0								
Benzene	ND	0.50								
Benzyl chloride	ND	1.0								
Bromodichloromethane	ND	0.50								
Bromoform	ND	0.50								
Bromomethane	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.50								
Chlorobenzene	ND	0.50								
Chloroethane	ND	0.50								
Chloroform	ND	0.20								
Chloromethane	ND	0.50								
cis-1,2-Dichloroethene	ND	0.50								
cis-1,3-Dichloropropene	ND	0.50								
Cumene	ND	0.50								
Cyclohexane	ND	0.50								
Dibromochloromethane	ND	0.50								
Dichlorodifluoromethane	ND	0.50								
Ethyl acetate	ND	0.50								
Ethylbenzene	ND	0.50								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**QC BATCH REPORT**

Client: ATC Group Services LLC

Work Order: 20101133

Project: FORMER IRS PROPERTY COVINGTON, KY; 24

Batch ID: R183040	Instrument ID VMS4	Method: ETO-15			
Freon 113	ND	0.50			
Freon 114	ND	0.50			
Heptane	ND	0.50			
Hexachlorobutadiene	ND	0.50			
Hexane	ND	0.50			
m,p-Xylene	ND	0.50			
Methylene chloride	ND	2.0			
MTBE	ND	0.50			
Naphthalene	0.13	0.20			J
o-Xylene	ND	0.50			
Propene	ND	0.50			
Styrene	ND	0.50			
Tetrachloroethene	ND	0.50			
Tetrahydrofuran	ND	0.50			
Toluene	ND	0.50			
trans-1,2-Dichloroethene	ND	0.50			
trans-1,3-Dichloropropene	ND	0.50			
Trichloroethene	ND	0.20			
Trichlorofluoromethane	ND	0.50			
Vinyl acetate	ND	0.50			
Vinyl chloride	ND	0.50			
Surr: Bromofluorobenzene	9.79	0	10	0	97.9 60-140 0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** ATC Group Services LLC  
**Work Order:** 20101133  
**Project:** FORMER IRS PROPERTY COVINGTON, KY; 24

# QC BATCH REPORT

Batch ID: **R183040**      Instrument ID **VMS4**      Method: **ETO-15**

<b>Ics</b>		Sample ID: <b>LCS-R183040</b>			Units: <b>ppbv</b>		Analysis Date: <b>11/9/2020 01:05 PM</b>			
Client ID:		Run ID: <b>VMS4_201109A</b>			SeqNo: <b>2347414</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	10.58	0.50	10	0	106	58.8-163		0		
1,1,2,2-Tetrachloroethane	11.03	0.50	10	0	110	60-140		0		
1,1,2-Trichloroethane	10.81	0.50	10	0	108	60-140		0		
1,1-Dichloroethane	11.23	0.50	10	0	112	60-140		0		
1,1-Dichloroethene	11.5	0.50	10	0	115	60-140		0		
1,2,4-Trichlorobenzene	9.09	0.50	10	0	90.9	49.3-150		0		
1,2,4-Trimethylbenzene	10.88	0.50	10	0	109	50.1-162		0		
1,2-Dibromoethane	10.81	0.20	10	0	108	60-140		0		
1,2-Dichlorobenzene	10.37	0.50	10	0	104	41.9-141		0		
1,2-Dichloroethane	11.38	0.50	10	0	114	60-140		0		
1,2-Dichloropropane	11.27	0.50	10	0	113	60-140		0		
1,3,5-Trimethylbenzene	10.92	0.50	10	0	109	60-140		0		
1,3-Butadiene	12.97	0.50	10	0	130	50.6-140		0		
1,3-Dichlorobenzene	10.5	1.0	10	0	105	60-140		0		
1,4-Dichlorobenzene	10.36	1.0	10	0	104	55.1-145		0		
1,4-Dioxane	10.84	1.0	10	0	108	60-140		0		
2-Butanone	10.54	1.0	10	0	105	60-140		0		
2-Hexanone	12.38	1.0	10	0	124	56.2-162		0		
2-Propanol	10.99	1.0	10	0	110	60-140		0		
4-Ethyltoluene	11.12	0.50	10	0	111	60-140		0		
4-Methyl-2-pentanone	12.33	1.0	10	0	123	60-140		0		
Acetone	11.4	1.0	10	0	114	60-140		0		
Benzene	10.6	0.50	10	0	106	60-140		0		
Benzyl chloride	11.01	1.0	10	0	110	31.9-174		0		
Bromodichloromethane	11	0.50	10	0	110	60-140		0		
Bromoform	10.47	0.50	10	0	105	60-140		0		
Bromomethane	11.57	0.50	10	0	116	60-140		0		
Carbon disulfide	10.95	0.50	10	0	110	60-140		0		
Carbon tetrachloride	10.62	0.50	10	0	106	60-140		0		
Chlorobenzene	10.46	0.50	10	0	105	60-140		0		
Chloroethane	11.83	0.50	10	0	118	60-140		0		
Chloroform	10.7	0.20	10	0	107	60-140		0		
Chloromethane	11.95	0.50	10	0	120	60-140		0		
cis-1,2-Dichloroethene	11.86	0.50	10	0	119	60-140		0		
cis-1,3-Dichloropropene	10.96	0.50	10	0	110	60-140		0		
Cumene	10.95	0.50	10	0	110	60-140		0		
Cyclohexane	10.44	0.50	10	0	104	60-140		0		
Dibromochloromethane	10.77	0.50	10	0	108	60-140		0		
Dichlorodifluoromethane	11.59	0.50	10	0	116	60-140		0		
Ethyl acetate	10.65	0.50	10	0	106	60-140		0		
Ethylbenzene	10.78	0.50	10	0	108	60-140		0		
Freon 113	10.9	0.50	10	0	109	60-140		0		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** ATC Group Services LLC**QC BATCH REPORT****Work Order:** 20101133**Project:** FORMER IRS PROPERTY COVINGTON, KY; 24

Batch ID: <b>R183040</b>	Instrument ID <b>VMS4</b>	Method: <b>ETO-15</b>					
Freon 114	11.53	0.50	10	0	115	60-140	0
Heptane	11.18	0.50	10	0	112	60-140	0
Hexachlorobutadiene	9.78	0.50	10	0	97.8	60-140	0
Hexane	10.92	0.50	10	0	109	60-140	0
m,p-Xylene	22.33	0.50	20	0	112	60-140	0
Methylene chloride	10.96	2.0	10	0	110	60-140	0
MTBE	10.8	0.50	10	0	108	60.8-151	0
Naphthalene	8.66	0.20	10	0	86.6	53.1-152	0
o-Xylene	10.87	0.50	10	0	109	60-140	0
Propene	8.51	0.50	10	0	85.1	34.4-139	0
Styrene	10.58	0.50	10	0	106	60-140	0
Tetrachloroethene	10.38	0.50	10	0	104	60-140	0
Tetrahydrofuran	11.28	0.50	10	0	113	60-140	0
Toluene	10.73	0.50	10	0	107	60-140	0
trans-1,2-Dichloroethene	10.55	0.50	10	0	106	60-140	0
trans-1,3-Dichloropropene	11.26	0.50	10	0	113	60-140	0
Trichloroethene	10.68	0.20	10	0	107	60-140	0
Trichlorofluoromethane	10.94	0.50	10	0	109	60-140	0
Vinyl acetate	12.45	0.50	10	0	124	48.4-145	0
Vinyl chloride	12.85	0.50	10	0	128	60-140	0
<i>Surr: Bromofluorobenzene</i>	10.39	0	10	0	104	60-140	0

**The following samples were analyzed in this batch:**

20101133-01A	20101133-02A	20101133-03A
20101133-04A	20101133-06A	20101133-08A
20101133-10A	20101133-12A	20101133-13A
20101133-14A		

**Client:** ATC Group Services LLC  
**Work Order:** 20101133  
**Project:** FORMER IRS PROPERTY COVINGTON, KY; 24

# QC BATCH REPORT

Batch ID: **R183045**      Instrument ID **VMS4**      Method: **ETO-15**

<b>mbLK</b>	Sample ID: <b>MBLK-R183045</b>				Units: <b>ppbv</b>		Analysis Date: <b>11/10/2020 03:00 PM</b>			
Client ID:	Run ID: <b>VMS4_201110A</b>				SeqNo: <b>2347543</b>	Prep Date:			DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	0.50								
1,1,2,2-Tetrachloroethane	ND	0.50								
1,1,2-Trichloroethane	ND	0.50								
1,1-Dichloroethane	ND	0.50								
1,1-Dichloroethene	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.50								
1,2,4-Trimethylbenzene	ND	0.50								
1,2-Dibromoethane	ND	0.20								
1,2-Dichlorobenzene	ND	0.50								
1,2-Dichloroethane	ND	0.50								
1,2-Dichloropropane	ND	0.50								
1,3,5-Trimethylbenzene	ND	0.50								
1,3-Butadiene	ND	0.50								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
1,4-Dioxane	ND	1.0								
2-Butanone	ND	1.0								
2-Hexanone	ND	1.0								
2-Propanol	ND	1.0								
4-Ethyltoluene	ND	0.50								
4-Methyl-2-pentanone	ND	1.0								
Acetone	ND	1.0								
Benzene	0.02	0.50								J
Benzyl chloride	ND	1.0								
Bromodichloromethane	ND	0.50								
Bromoform	ND	0.50								
Bromomethane	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.50								
Chlorobenzene	ND	0.50								
Chloroethane	ND	0.50								
Chloroform	ND	0.20								
Chloromethane	ND	0.50								
cis-1,2-Dichloroethene	ND	0.50								
cis-1,3-Dichloropropene	ND	0.50								
Cumene	ND	0.50								
Cyclohexane	ND	0.50								
Dibromochloromethane	ND	0.50								
Dichlorodifluoromethane	ND	0.50								
Ethyl acetate	ND	0.50								
Ethylbenzene	ND	0.50								
Freon 113	ND	0.50								

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**QC BATCH REPORT**

Client: ATC Group Services LLC

Work Order: 20101133

Project: FORMER IRS PROPERTY COVINGTON, KY; 24

Batch ID: R183045	Instrument ID VMS4	Method: ETO-15				
Freon 114	ND	0.50				
Heptane	ND	0.50				
Hexachlorobutadiene	ND	0.50				
Hexane	ND	0.50				
m,p-Xylene	ND	0.50				
Methylene chloride	ND	2.0				
MTBE	ND	0.50				
Naphthalene	0.12	0.20				J
o-Xylene	ND	0.50				
Propene	ND	0.50				
Styrene	ND	0.50				
Tetrachloroethene	ND	0.50				
Tetrahydrofuran	ND	0.50				
Toluene	ND	0.50				
trans-1,2-Dichloroethene	ND	0.50				
trans-1,3-Dichloropropene	ND	0.50				
Trichloroethene	ND	0.20				
Trichlorofluoromethane	ND	0.50				
Vinyl acetate	ND	0.50				
Vinyl chloride	ND	0.50				
Surr: Bromofluorobenzene	9.85	0	10	0	98.5	60-140
						0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC Page: 6 of 8

**Client:** ATC Group Services LLC  
**Work Order:** 20101133  
**Project:** FORMER IRS PROPERTY COVINGTON, KY; 24

# QC BATCH REPORT

Batch ID: **R183045**      Instrument ID **VMS4**      Method: **ETO-15**

<b>Ics</b>		Sample ID: <b>LCS-R183045</b>		Units: <b>ppbv</b>		Analysis Date: <b>11/10/2020 02:16 PM</b>				
Client ID:		Run ID: <b>VMS4_201110A</b>		SeqNo: <b>2347542</b>		Prep Date:	DF:	<b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	10.73	0.50	10	0	107	58.8-163		0		
1,1,2,2-Tetrachloroethane	11.31	0.50	10	0	113	60-140		0		
1,1,2-Trichloroethane	11.11	0.50	10	0	111	60-140		0		
1,1-Dichloroethane	11.42	0.50	10	0	114	60-140		0		
1,1-Dichloroethene	11.81	0.50	10	0	118	60-140		0		
1,2,4-Trichlorobenzene	9.34	0.50	10	0	93.4	49.3-150		0		
1,2,4-Trimethylbenzene	11.11	0.50	10	0	111	50.1-162		0		
1,2-Dibromoethane	11.01	0.20	10	0	110	60-140		0		
1,2-Dichlorobenzene	10.62	0.50	10	0	106	41.9-141		0		
1,2-Dichloroethane	11.62	0.50	10	0	116	60-140		0		
1,2-Dichloropropane	11.45	0.50	10	0	114	60-140		0		
1,3,5-Trimethylbenzene	11.13	0.50	10	0	111	60-140		0		
1,3-Butadiene	12.27	0.50	10	0	123	50.6-140		0		
1,3-Dichlorobenzene	10.76	1.0	10	0	108	60-140		0		
1,4-Dichlorobenzene	10.72	1.0	10	0	107	55.1-145		0		
1,4-Dioxane	11.1	1.0	10	0	111	60-140		0		
2-Butanone	10.78	1.0	10	0	108	60-140		0		
2-Hexanone	12.26	1.0	10	0	123	56.2-162		0		
2-Propanol	11.26	1.0	10	0	113	60-140		0		
4-Ethyltoluene	11.3	0.50	10	0	113	60-140		0		
4-Methyl-2-pentanone	12.43	1.0	10	0	124	60-140		0		
Acetone	11.95	1.0	10	0	120	60-140		0		
Benzene	10.85	0.50	10	0	108	60-140		0		
Benzyl chloride	11.05	1.0	10	0	110	31.9-174		0		
Bromodichloromethane	11.24	0.50	10	0	112	60-140		0		
Bromoform	10.6	0.50	10	0	106	60-140		0		
Bromomethane	12.57	0.50	10	0	126	60-140		0		
Carbon disulfide	11.19	0.50	10	0	112	60-140		0		
Carbon tetrachloride	10.71	0.50	10	0	107	60-140		0		
Chlorobenzene	10.7	0.50	10	0	107	60-140		0		
Chloroethane	12.6	0.50	10	0	126	60-140		0		
Chloroform	10.99	0.20	10	0	110	60-140		0		
Chloromethane	12.14	0.50	10	0	121	60-140		0		
cis-1,2-Dichloroethene	12.17	0.50	10	0	122	60-140		0		
cis-1,3-Dichloropropene	11.05	0.50	10	0	110	60-140		0		
Cumene	11.15	0.50	10	0	112	60-140		0		
Cyclohexane	10.59	0.50	10	0	106	60-140		0		
Dibromochloromethane	11	0.50	10	0	110	60-140		0		
Dichlorodifluoromethane	11.78	0.50	10	0	118	60-140		0		
Ethyl acetate	10.81	0.50	10	0	108	60-140		0		
Ethylbenzene	11	0.50	10	0	110	60-140		0		
Freon 113	11.22	0.50	10	0	112	60-140		0		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** ATC Group Services LLC  
**Work Order:** 20101133  
**Project:** FORMER IRS PROPERTY COVINGTON, KY; 24

## QC BATCH REPORT

Batch ID: R183045	Instrument ID VMS4	Method: ETO-15					
Freon 114	11.75	0.50	10	0	118	60-140	0
Heptane	11.51	0.50	10	0	115	60-140	0
Hexachlorobutadiene	10.15	0.50	10	0	102	60-140	0
Hexane	11.14	0.50	10	0	111	60-140	0
m,p-Xylene	22.61	0.50	20	0	113	60-140	0
Methylene chloride	11.09	2.0	10	0	111	60-140	0
MTBE	10.96	0.50	10	0	110	60.8-151	0
Naphthalene	8.9	0.20	10	0	89	53.1-152	0
o-Xylene	11.07	0.50	10	0	111	60-140	0
Propene	10.93	0.50	10	0	109	34.4-139	0
Styrene	10.53	0.50	10	0	105	60-140	0
Tetrachloroethene	10.66	0.50	10	0	107	60-140	0
Tetrahydrofuran	11.62	0.50	10	0	116	60-140	0
Toluene	11.04	0.50	10	0	110	60-140	0
trans-1,2-Dichloroethene	10.77	0.50	10	0	108	60-140	0
trans-1,3-Dichloropropene	11.33	0.50	10	0	113	60-140	0
Trichloroethene	10.91	0.20	10	0	109	60-140	0
Trichlorofluoromethane	11.77	0.50	10	0	118	60-140	0
Vinyl acetate	12.66	0.50	10	0	127	48.4-145	0
Vinyl chloride	13.08	0.50	10	0	131	60-140	0
Surr: Bromofluorobenzene	10.26	0	10	0	103	60-140	0

The following samples were analyzed in this batch:

20101133-05A	20101133-07A	20101133-09A
20101133-11A	20101133-15A	

**Client:** ATC Group Services LLC  
**Project:** FORMER IRS PROPERTY COVINGTON, KY; 241EN00715  
**WorkOrder:** 20101133

## **QUALIFIERS, ACRONYMS, UNITS**

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<b><u>Acronym</u></b>	<b><u>Description</u></b>
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
µg/m <sup>3</sup>	
ppbv	

## Sample Receipt Checklist

Client Name: ATC-CINCINNATIDate/Time Received: 29-Oct-20 09:47Work Order: 20101133Received by: SNHChecklist completed by Stephanie Harrington  
eSignature

29-Oct-20

Reviewed by: Bob Nieman

eSignature

30-Oct-20

Matrices:

Carrier name: ClientShipping container/cooler in good condition? Yes  No  Not Present Custody seals intact on shipping container/cooler? Yes  No  Not Present Custody seals intact on sample bottles? Yes  No  Not Present Chain of custody present? Yes  No Chain of custody signed when relinquished and received? Yes  No Chain of custody agrees with sample labels? Yes  No Samples in proper container/bottle? Yes  No Sample containers intact? Yes  No Sufficient sample volume for indicated test? Yes  No All samples received within holding time? Yes  No Container/Temp Blank temperature in compliance? Yes  No Sample(s) received on ice? Yes  No 

Temperature(s)/Thermometer(s):


Cooler(s)/Kit(s):


Date/Time sample(s) sent to storage:


Water - VOA vials have zero headspace?

Yes  No  No VOA vials submitted 

Water - pH acceptable upon receipt?

Yes  No  N/A 

pH adjusted?

Yes  No  N/A 

pH adjusted by:

-
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Login Notes:

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Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

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CorrectiveAction:

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## Air Canister - Chain of Custody Record / Analytical Service Request

Page 1 of 2

02796



Ship To: ALS Environmental  
4388 Glendale Milford Rd.  
Cincinnati, Ohio 45242  
Phone: (513) 733-5336  
Fax: (513) 733-5347

20101133

Requested Turnaround Time in Business Days (Surcharges) please circle  
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard

ALS Project No.

Company Name &amp; Address (Reporting Information)

**ATC Group Services**  
11121 Canal Road  
Sharserville, OH

Project Manager

Mike Luessen

Phone 513-771-2112 Fax

Email Address for Result Reporting

Mike Luessen + Mike Baumgartner

Project Name

Former IRS Property Covington, KY

Project Number

241EN00715

P.O. # / Billing Information

Sampler (Print &amp; Sign)

Michael Baumgartner / Michael Baumgartner

OH VAP:  Yes  NoOH BUSTR:  Yes  No

Analysis Method

Type:

SS = SubSlab

IA = Indoor Air

SG = Soil Gas

O = Other

AA = Ambient Air

SVE = Soil Vapor Extract

Comments / Specific Instructions (ie: water or pressure issues)

TO15 VOCs

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID	Flow Controller ID	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	PID		
SV-10	1	10-28-20	16:40	109984	109209	30	4	0.0	X	SS
IA-1	2		16:42	119424	119710	30	2	0.0	X	IA
SV-11	3		1530	109986	109129	30	6	0.0	X	SS
IA-2	4		1530	119818	109473	30	6	0.0	X	IA
SV-12	5		1542	101794	119046	30	5	0.0	X	SS
IA-3	6		1542	109142	109468	28	6	0.0	X	IA
SV-13	7		1552	109966	119040	30	6	0.0	X	SS
IA-4	8		1554	109157	119617	25	3	0.0	X	IA
SV-14	9		1602	109985	107052	25	8	0.0	X	SS
IA-5	10		1600	109153	108787	29	4	0.0	X	IA
SV-15	11		1620	109968	119608	30	5	0.0	X	SS
IA-6	12		1620	109976	119007	30	5	0.0	X	IA
AA-I	13		1547	109983	119709	29	7	0.0	X	AA
AA-O	14	10-28-20	1630	109997	119609	30	6	0.0	X	AA

There will be additional charges for damaged equipment

Report QC Levels

EDD required Yes / No

Type: Units:

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature)  
Michael Baumgartner / ATCGS

Date: 10-29-20 Time: 0930

Received by: (Signature)

Date: 10/29/2020 Time:

Relinquished by: (Signature)

Date: Time:

Received by: (Signature)

Date: 0947 Time:

Cooler / Blank Temperature °C

## Air Canister - Chain of Custody Record / Analytical Service Request

Page 2 of 2

Ship To: ALS Environmental  
4388 Glendale Milford Rd.  
Cincinnati, Ohio 45242  
Phone: (513) 733-5336  
Fax: (513) 733-5347

20101133

02537

Requested Turnaround Time In Business Days (Surcharges) please circle  
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard

ALS Project No.

OH VAP:  Yes  No  
OH BUSTR:  Yes  No

## Analysis Method

Type:

SS = SubSlab

IA = Indoor Air

SG = Soil Gas

O = Other

AA = Ambient Air

SVE = Soil Vapor Extract

Comments / Specific Instructions (ie: water or pressure issues)

Company Name &amp; Address (Reporting Information)

ATC Group Services  
11121 Canal Road  
Sharonville, OH

Project Manager

Mike Lwessen

Phone 513-771-2112 Fax

Email Address for Result Reporting

Mike Lwessen + Mike Baumgartner

## Project Name

Former IRS Property Covington, KY

## Project Number

241EN00715

## P.O. # / Billing Information

## Sampler (Print &amp; Sign)

Michael Baumgartner / Michael Baumgartner

TO15 VOCs

Client Sample ID

Laboratory ID Number

Date Collected

Time Collected

Canister ID

Flow Controller ID

Canister Start Pressure "Hg

Canister End Pressure "Hg/psig

-PID

Duplicate

15

10-28-20

15:30

119823

108984

30

6

0.0

X

SS

## Report QC Levels

EDD required Yes / No

Type: \_\_\_\_\_ Units: \_\_\_\_\_

Project Requirements (MRLs, QAPP)

There will be additional charges for damaged equipment

Relinquished by: (Signature)

Michael Baumgartner / ATCGS

Date:

10-29-20

Time:

0930

Received by: (Signature)

Date:

10/29/2020

Time:

0814

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Cooler / Blank Temperature \_\_\_\_\_ °C

## **Attachment D**

### **Laboratory Report – Soil and Groundwater**



15-Dec-2020

Mike Luessen  
ATC Group Services LLC  
11121 Canal Road  
Cincinnati, OH 45241-1861

Re: **Former IRS Property 200 West Fourth St Covington, KY; 2**      Work Order: **20120300**

Dear Mike,

ALS Environmental received 7 samples on 08-Dec-2020 12:30 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 35.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

**Rob Nieman**

Electronically approved by: Rob Nieman

Rob Nieman  
Project Manager

### Report of Laboratory Analysis

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

**Client:** ATC Group Services LLC  
**Project:** Former IRS Property 200 West Fourth St Covington, KY; 2  
**Work Order:** 20120300

**Work Order Sample Summary**

<b>Lab Samp ID</b>	<b>Client Sample ID</b>	<b>Matrix</b>	<b>Tag Number</b>	<b>Collection Date</b>	<b>Date Received</b>	<b>Hold</b>
20120300-01	SB-19 (16-18)	Soil		12/7/2020 11:20	12/8/2020 12:30	<input type="checkbox"/>
20120300-02	SB-20 (16-18)	Soil		12/7/2020 12:30	12/8/2020 12:30	<input type="checkbox"/>
20120300-03	SB-21 (16-18)	Soil		12/7/2020 13:40	12/8/2020 12:30	<input type="checkbox"/>
20120300-04	TMW-1	Water		12/7/2020 14:30	12/8/2020 12:30	<input type="checkbox"/>
20120300-05	TMW-2	Water		12/7/2020 14:40	12/8/2020 12:30	<input type="checkbox"/>
20120300-06	TMW-3	Water		12/7/2020 14:50	12/8/2020 12:30	<input type="checkbox"/>
20120300-07	MW-12	Water		12/7/2020 15:00	12/8/2020 12:30	<input type="checkbox"/>

**Client:** ATC Group Services LLC**Project:** Former IRS Property 200 West Fourth St Covington, KY;**Case Narrative****Work Order:** 20120300

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The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Results relate only to the items tested and are not blank corrected unless indicated.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

# ALS Environmental

Date: 15-Dec-20

**Client:** ATC Group Services LLC

**Project:** Former IRS Property 200 West Fourth St Covington,

**Work Order:** 20120300

**Sample ID:** SB-19 (16-18)

**Lab ID:** 20120300-01

**Collection Date:** 12/7/2020 11:20 AM

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>MOISTURE</b>						
Moisture	20			% of sample	1	Analyst: AZ 12/14/2020
<b>VOLATILE ORGANIC COMPOUNDS</b>						
1,1,1,2-Tetrachloroethane	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
1,1,1-Trichloroethane	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
1,1,2,2-Tetrachloroethane	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
1,1,2-Trichloroethane	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
1,1-Dichloroethane	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
1,1-Dichloroethene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
1,1-Dichloropropene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
1,2,3-Trichlorobenzene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
1,2,3-Trichloropropane	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
1,2,4-Trichlorobenzene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
1,2,4-Trimethylbenzene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
1,2-Dibromo-3-chloropropane	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
1,2-Dibromoethane	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
1,2-Dichlorobenzene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
1,2-Dichloroethane	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
1,2-Dichloropropane	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
1,3,5-Trimethylbenzene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
1,3-Dichlorobenzene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
1,3-Dichloropropane	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
1,4-Dichlorobenzene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
2,2-Dichloropropane	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
2-Butanone	ND		62	µg/Kg-dry	1	12/14/2020 10:27 AM
2-Chlorotoluene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
2-Hexanone	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
4-Chlorotoluene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
4-Methyl-2-pentanone	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
Acetone	ND		62	µg/Kg-dry	1	12/14/2020 10:27 AM
Benzene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
Bromobenzene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
Bromochloromethane	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
Bromodichloromethane	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
Bromoform	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
Bromomethane	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
Carbon disulfide	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
Carbon tetrachloride	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
Chlorobenzene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM

Note:

# ALS Environmental

Date: 15-Dec-20

**Client:** ATC Group Services LLC

**Project:** Former IRS Property 200 West Fourth St Covington,

**Work Order:** 20120300

**Sample ID:** SB-19 (16-18)

**Lab ID:** 20120300-01

**Collection Date:** 12/7/2020 11:20 AM

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
Chloroform	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
Chloromethane	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
cis-1,2-Dichloroethene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
cis-1,3-Dichloropropene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
Dibromochloromethane	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
Dibromomethane	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
Dichlorodifluoromethane	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
Ethylbenzene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
Hexachlorobutadiene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
Isopropylbenzene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
m,p-Xylene	ND		12	µg/Kg-dry	1	12/14/2020 10:27 AM
Methyl tert-butyl ether	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
Methylene chloride	ND		25	µg/Kg-dry	1	12/14/2020 10:27 AM
Naphthalene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
n-Butylbenzene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
n-Propylbenzene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
o-Xylene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
p-Isopropyltoluene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
sec-Butylbenzene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
Styrene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
tert-Butylbenzene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
Tetrachloroethene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
Toluene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
trans-1,2-Dichloroethene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
trans-1,3-Dichloropropene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
Trichloroethene	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
Trichlorofluoromethane	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
Vinyl chloride	ND		6.2	µg/Kg-dry	1	12/14/2020 10:27 AM
Xylenes, Total	ND		19	µg/Kg-dry	1	12/14/2020 10:27 AM
Surr: 4-Bromofluorobenzene	99.4		62.7-159	%REC	1	12/14/2020 10:27 AM
Surr: Dibromofluoromethane	120		88.4-146	%REC	1	12/14/2020 10:27 AM
Surr: Toluene-d8	106		83-124	%REC	1	12/14/2020 10:27 AM

Note:

# ALS Environmental

Date: 15-Dec-20

**Client:** ATC Group Services LLC

**Project:** Former IRS Property 200 West Fourth St Covington,

**Work Order:** 20120300

**Sample ID:** SB-20 (16-18)

**Lab ID:** 20120300-02

**Collection Date:** 12/7/2020 12:30 PM

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>MOISTURE</b>						
Moisture	21			SM2540B % of sample	1	Analyst: AZ 12/14/2020
<b>VOLATILE ORGANIC COMPOUNDS</b>						
1,1,1,2-Tetrachloroethane	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
1,1,1-Trichloroethane	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
1,1,2,2-Tetrachloroethane	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
1,1,2-Trichloroethane	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
1,1-Dichloroethane	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
1,1-Dichloroethene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
1,1-Dichloropropene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
1,2,3-Trichlorobenzene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
1,2,3-Trichloropropane	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
1,2,4-Trichlorobenzene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
1,2,4-Trimethylbenzene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
1,2-Dibromo-3-chloropropane	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
1,2-Dibromoethane	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
1,2-Dichlorobenzene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
1,2-Dichloroethane	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
1,2-Dichloropropane	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
1,3,5-Trimethylbenzene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
1,3-Dichlorobenzene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
1,3-Dichloropropane	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
1,4-Dichlorobenzene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
2,2-Dichloropropane	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
2-Butanone	ND		63	µg/Kg-dry	1	12/14/2020 10:52 AM
2-Chlorotoluene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
2-Hexanone	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
4-Chlorotoluene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
4-Methyl-2-pentanone	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
Acetone	ND		63	µg/Kg-dry	1	12/14/2020 10:52 AM
Benzene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
Bromobenzene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
Bromochloromethane	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
Bromodichloromethane	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
Bromoform	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
Bromomethane	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
Carbon disulfide	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
Carbon tetrachloride	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
Chlorobenzene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM

Note:

# ALS Environmental

Date: 15-Dec-20

**Client:** ATC Group Services LLC

**Project:** Former IRS Property 200 West Fourth St Covington,

**Work Order:** 20120300

**Sample ID:** SB-20 (16-18)

**Lab ID:** 20120300-02

**Collection Date:** 12/7/2020 12:30 PM

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
Chloroform	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
Chloromethane	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
cis-1,2-Dichloroethene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
cis-1,3-Dichloropropene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
Dibromochloromethane	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
Dibromomethane	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
Dichlorodifluoromethane	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
Ethylbenzene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
Hexachlorobutadiene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
Isopropylbenzene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
m,p-Xylene	ND		13	µg/Kg-dry	1	12/14/2020 10:52 AM
Methyl tert-butyl ether	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
Methylene chloride	ND		25	µg/Kg-dry	1	12/14/2020 10:52 AM
Naphthalene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
n-Butylbenzene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
n-Propylbenzene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
o-Xylene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
p-Isopropyltoluene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
sec-Butylbenzene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
Styrene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
tert-Butylbenzene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
<b>Tetrachloroethene</b>	<b>19</b>		<b>6.3</b>	<b>µg/Kg-dry</b>	<b>1</b>	12/14/2020 10:52 AM
Toluene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
trans-1,2-Dichloroethene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
trans-1,3-Dichloropropene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
Trichloroethene	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
Trichlorofluoromethane	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
Vinyl chloride	ND		6.3	µg/Kg-dry	1	12/14/2020 10:52 AM
Xylenes, Total	ND		19	µg/Kg-dry	1	12/14/2020 10:52 AM
Surr: 4-Bromofluorobenzene	99.7		62.7-159	%REC	1	12/14/2020 10:52 AM
Surr: Dibromofluoromethane	125		88.4-146	%REC	1	12/14/2020 10:52 AM
Surr: Toluene-d8	106		83-124	%REC	1	12/14/2020 10:52 AM

Note:

# ALS Environmental

Date: 15-Dec-20

**Client:** ATC Group Services LLC

**Project:** Former IRS Property 200 West Fourth St Covington,

**Work Order:** 20120300

**Sample ID:** SB-21 (16-18)

**Lab ID:** 20120300-03

**Collection Date:** 12/7/2020 01:40 PM

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>MOISTURE</b>			<b>SM2540B</b>			<b>Analyst: AZ</b>
Moisture	22			% of sample	1	12/14/2020
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260B</b>			<b>Analyst: LAK</b>
1,1,1,2-Tetrachloroethane	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
1,1,1-Trichloroethane	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
1,1,2,2-Tetrachloroethane	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
1,1,2-Trichloroethane	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
1,1-Dichloroethane	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
1,1-Dichloroethene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
1,1-Dichloropropene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
1,2,3-Trichlorobenzene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
1,2,3-Trichloropropane	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
1,2,4-Trichlorobenzene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
1,2,4-Trimethylbenzene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
1,2-Dibromo-3-chloropropane	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
1,2-Dibromoethane	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
1,2-Dichlorobenzene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
1,2-Dichloroethane	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
1,2-Dichloropropane	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
1,3,5-Trimethylbenzene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
1,3-Dichlorobenzene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
1,3-Dichloropropane	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
1,4-Dichlorobenzene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
2,2-Dichloropropane	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
2-Butanone	ND		64	µg/Kg-dry	1	12/14/2020 11:18 AM
2-Chlorotoluene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
2-Hexanone	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
4-Chlorotoluene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
4-Methyl-2-pentanone	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
Acetone	ND		64	µg/Kg-dry	1	12/14/2020 11:18 AM
Benzene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
Bromobenzene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
Bromochloromethane	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
Bromodichloromethane	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
Bromoform	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
Bromomethane	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
Carbon disulfide	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
Carbon tetrachloride	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
Chlorobenzene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM

Note:

# ALS Environmental

Date: 15-Dec-20

**Client:** ATC Group Services LLC

**Project:** Former IRS Property 200 West Fourth St Covington,

**Work Order:** 20120300

**Sample ID:** SB-21 (16-18)

**Lab ID:** 20120300-03

**Collection Date:** 12/7/2020 01:40 PM

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
Chloroform	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
Chloromethane	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
cis-1,2-Dichloroethene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
cis-1,3-Dichloropropene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
Dibromochloromethane	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
Dibromomethane	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
Dichlorodifluoromethane	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
Ethylbenzene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
Hexachlorobutadiene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
Isopropylbenzene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
m,p-Xylene	ND		13	µg/Kg-dry	1	12/14/2020 11:18 AM
Methyl tert-butyl ether	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
Methylene chloride	ND		26	µg/Kg-dry	1	12/14/2020 11:18 AM
Naphthalene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
n-Butylbenzene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
n-Propylbenzene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
o-Xylene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
p-Isopropyltoluene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
sec-Butylbenzene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
Styrene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
tert-Butylbenzene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
Tetrachloroethene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
Toluene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
trans-1,2-Dichloroethene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
trans-1,3-Dichloropropene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
Trichloroethene	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
Trichlorofluoromethane	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
Vinyl chloride	ND		6.4	µg/Kg-dry	1	12/14/2020 11:18 AM
Xylenes, Total	ND		19	µg/Kg-dry	1	12/14/2020 11:18 AM
Surr: 4-Bromofluorobenzene	97.7		62.7-159	%REC	1	12/14/2020 11:18 AM
Surr: Dibromofluoromethane	129		88.4-146	%REC	1	12/14/2020 11:18 AM
Surr: Toluene-d8	108		83-124	%REC	1	12/14/2020 11:18 AM

Note:

**ALS Environmental****Date:** 15-Dec-20

**Client:** ATC Group Services LLC  
**Project:** Former IRS Property 200 West Fourth St Covington,  
**Sample ID:** TMW-1  
**Collection Date:** 12/7/2020 02:30 PM

**Work Order:** 20120300  
**Lab ID:** 20120300-04  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8260B</b>			<b>Analyst: TJH</b>
1,1,1,2-Tetrachloroethane	ND		5.0	µg/L	1	12/11/2020 07:30 PM
1,1,1-Trichloroethane	ND		5.0	µg/L	1	12/11/2020 07:30 PM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	1	12/11/2020 07:30 PM
1,1,2-Trichloroethane	ND		5.0	µg/L	1	12/11/2020 07:30 PM
1,1-Dichloroethane	ND		5.0	µg/L	1	12/11/2020 07:30 PM
1,1-Dichloroethene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
1,1-Dichloropropene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
1,2,3-Trichlorobenzene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
1,2,3-Trichloropropane	ND		5.0	µg/L	1	12/11/2020 07:30 PM
1,2,4-Trichlorobenzene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
1,2,4-Trimethylbenzene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
1,2-Dibromo-3-chloropropane	ND		5.0	µg/L	1	12/11/2020 07:30 PM
1,2-Dibromoethane	ND		5.0	µg/L	1	12/11/2020 07:30 PM
1,2-Dichlorobenzene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
1,2-Dichloroethane	ND		5.0	µg/L	1	12/11/2020 07:30 PM
1,2-Dichloropropane	ND		5.0	µg/L	1	12/11/2020 07:30 PM
1,3,5-Trimethylbenzene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
1,3-Dichlorobenzene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
1,3-Dichloropropane	ND		5.0	µg/L	1	12/11/2020 07:30 PM
1,4-Dichlorobenzene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
2,2-Dichloropropane	ND		5.0	µg/L	1	12/11/2020 07:30 PM
2-Butanone	ND		50	µg/L	1	12/11/2020 07:30 PM
2-Chlorotoluene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
2-Hexanone	ND		5.0	µg/L	1	12/11/2020 07:30 PM
4-Chlorotoluene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Acetone	ND		50	µg/L	1	12/11/2020 07:30 PM
Benzene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Bromobenzene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Bromochloromethane	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Bromodichloromethane	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Bromoform	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Bromomethane	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Carbon disulfide	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Carbon tetrachloride	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Chlorobenzene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Chloroethane	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Chloroform	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Chloromethane	ND		5.0	µg/L	1	12/11/2020 07:30 PM

**Note:**

# ALS Environmental

Date: 15-Dec-20

**Client:** ATC Group Services LLC

**Project:** Former IRS Property 200 West Fourth St Covington,

**Work Order:** 20120300

**Sample ID:** TMW-1

**Lab ID:** 20120300-04

**Collection Date:** 12/7/2020 02:30 PM

**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
cis-1,3-Dichloropropene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Dibromochloromethane	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Dibromomethane	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Dichlorodifluoromethane	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Ethylbenzene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Isopropylbenzene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
m,p-Xylene	ND		10	µg/L	1	12/11/2020 07:30 PM
Methyl tert-butyl ether	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Methylene chloride	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Naphthalene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
n-Butylbenzene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
n-Propylbenzene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
o-Xylene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
p-Isopropyltoluene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
sec-Butylbenzene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Styrene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
tert-Butylbenzene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Tetrachloroethene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Toluene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
trans-1,2-Dichloroethene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
trans-1,3-Dichloropropene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Trichloroethene	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Trichlorofluoromethane	ND		5.0	µg/L	1	12/11/2020 07:30 PM
Vinyl chloride	ND		2.0	µg/L	1	12/11/2020 07:30 PM
Xylenes, Total	ND		15	µg/L	1	12/11/2020 07:30 PM
Surr: 4-Bromofluorobenzene	96.3		61-131	%REC	1	12/11/2020 07:30 PM
Surr: Dibromofluoromethane	96.9		87-126	%REC	1	12/11/2020 07:30 PM
Surr: Toluene-d8	95.9		83.8-111	%REC	1	12/11/2020 07:30 PM

Note:

**Client:** ATC Group Services LLC  
**Project:** Former IRS Property 200 West Fourth St Covington,  
**Sample ID:** TMW-2  
**Collection Date:** 12/7/2020 02:40 PM

**Work Order:** 20120300  
**Lab ID:** 20120300-05  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8260B</b>			Analyst: <b>TJH</b>
1,1,1,2-Tetrachloroethane	ND		5.0	µg/L	1	12/11/2020 07:53 PM
1,1,1-Trichloroethane	ND		5.0	µg/L	1	12/11/2020 07:53 PM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	1	12/11/2020 07:53 PM
1,1,2-Trichloroethane	ND		5.0	µg/L	1	12/11/2020 07:53 PM
1,1-Dichloroethane	ND		5.0	µg/L	1	12/11/2020 07:53 PM
1,1-Dichloroethene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
1,1-Dichloropropene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
1,2,3-Trichlorobenzene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
1,2,3-Trichloropropane	ND		5.0	µg/L	1	12/11/2020 07:53 PM
1,2,4-Trichlorobenzene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
1,2,4-Trimethylbenzene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
1,2-Dibromo-3-chloropropane	ND		5.0	µg/L	1	12/11/2020 07:53 PM
1,2-Dibromoethane	ND		5.0	µg/L	1	12/11/2020 07:53 PM
1,2-Dichlorobenzene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
1,2-Dichloroethane	ND		5.0	µg/L	1	12/11/2020 07:53 PM
1,2-Dichloropropane	ND		5.0	µg/L	1	12/11/2020 07:53 PM
1,3,5-Trimethylbenzene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
1,3-Dichlorobenzene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
1,3-Dichloropropane	ND		5.0	µg/L	1	12/11/2020 07:53 PM
1,4-Dichlorobenzene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
2,2-Dichloropropane	ND		5.0	µg/L	1	12/11/2020 07:53 PM
2-Butanone	ND		50	µg/L	1	12/11/2020 07:53 PM
2-Chlorotoluene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
2-Hexanone	ND		5.0	µg/L	1	12/11/2020 07:53 PM
4-Chlorotoluene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	12/11/2020 07:53 PM
Acetone	ND		50	µg/L	1	12/11/2020 07:53 PM
Benzene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
Bromobenzene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
Bromochloromethane	ND		5.0	µg/L	1	12/11/2020 07:53 PM
Bromodichloromethane	ND		5.0	µg/L	1	12/11/2020 07:53 PM
Bromoform	ND		5.0	µg/L	1	12/11/2020 07:53 PM
Bromomethane	ND		5.0	µg/L	1	12/11/2020 07:53 PM
Carbon disulfide	ND		5.0	µg/L	1	12/11/2020 07:53 PM
Carbon tetrachloride	ND		5.0	µg/L	1	12/11/2020 07:53 PM
Chlorobenzene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
Chloroethane	ND		5.0	µg/L	1	12/11/2020 07:53 PM
Chloroform	ND		5.0	µg/L	1	12/11/2020 07:53 PM
Chloromethane	ND		5.0	µg/L	1	12/11/2020 07:53 PM

Note:

# ALS Environmental

Date: 15-Dec-20

**Client:** ATC Group Services LLC

**Project:** Former IRS Property 200 West Fourth St Covington,

**Work Order:** 20120300

**Sample ID:** TMW-2

**Lab ID:** 20120300-05

**Collection Date:** 12/7/2020 02:40 PM

**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
cis-1,3-Dichloropropene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
Dibromochloromethane	ND		5.0	µg/L	1	12/11/2020 07:53 PM
Dibromomethane	ND		5.0	µg/L	1	12/11/2020 07:53 PM
Dichlorodifluoromethane	ND		5.0	µg/L	1	12/11/2020 07:53 PM
Ethylbenzene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
Isopropylbenzene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
m,p-Xylene	ND		10	µg/L	1	12/11/2020 07:53 PM
Methyl tert-butyl ether	ND		5.0	µg/L	1	12/11/2020 07:53 PM
Methylene chloride	ND		5.0	µg/L	1	12/11/2020 07:53 PM
Naphthalene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
n-Butylbenzene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
n-Propylbenzene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
o-Xylene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
p-Isopropyltoluene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
sec-Butylbenzene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
Styrene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
tert-Butylbenzene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
<b>Tetrachloroethene</b>	<b>28</b>		<b>5.0</b>	<b>µg/L</b>	1	12/11/2020 07:53 PM
Toluene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
trans-1,2-Dichloroethene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
trans-1,3-Dichloropropene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
Trichloroethene	ND		5.0	µg/L	1	12/11/2020 07:53 PM
Trichlorofluoromethane	ND		5.0	µg/L	1	12/11/2020 07:53 PM
Vinyl chloride	ND		2.0	µg/L	1	12/11/2020 07:53 PM
Xylenes, Total	ND		15	µg/L	1	12/11/2020 07:53 PM
Surr: 4-Bromofluorobenzene	96.7		61-131	%REC	1	12/11/2020 07:53 PM
Surr: Dibromofluoromethane	100		87-126	%REC	1	12/11/2020 07:53 PM
Surr: Toluene-d8	99.0		83.8-111	%REC	1	12/11/2020 07:53 PM

Note:

**ALS Environmental****Date:** 15-Dec-20**Client:** ATC Group Services LLC**Project:** Former IRS Property 200 West Fourth St Covington,**Work Order:** 20120300**Sample ID:** TMW-3**Lab ID:** 20120300-06**Collection Date:** 12/7/2020 02:50 PM**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>						
1,1,1,2-Tetrachloroethane	ND		5.0	µg/L	1	12/14/2020 11:11 AM
1,1,1-Trichloroethane	ND		5.0	µg/L	1	12/14/2020 11:11 AM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	1	12/14/2020 11:11 AM
1,1,2-Trichloroethane	ND		5.0	µg/L	1	12/14/2020 11:11 AM
1,1-Dichloroethane	ND		5.0	µg/L	1	12/14/2020 11:11 AM
1,1-Dichloroethene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
1,1-Dichloropropene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
1,2,3-Trichlorobenzene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
1,2,3-Trichloropropane	ND		5.0	µg/L	1	12/14/2020 11:11 AM
1,2,4-Trichlorobenzene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
1,2,4-Trimethylbenzene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
1,2-Dibromo-3-chloropropane	ND		5.0	µg/L	1	12/14/2020 11:11 AM
1,2-Dibromoethane	ND		5.0	µg/L	1	12/14/2020 11:11 AM
1,2-Dichlorobenzene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
1,2-Dichloroethane	ND		5.0	µg/L	1	12/14/2020 11:11 AM
1,2-Dichloropropane	ND		5.0	µg/L	1	12/14/2020 11:11 AM
1,3,5-Trimethylbenzene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
1,3-Dichlorobenzene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
1,3-Dichloropropane	ND		5.0	µg/L	1	12/14/2020 11:11 AM
1,4-Dichlorobenzene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
2,2-Dichloropropane	ND		5.0	µg/L	1	12/14/2020 11:11 AM
2-Butanone	ND		50	µg/L	1	12/14/2020 11:11 AM
2-Chlorotoluene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
2-Hexanone	ND		5.0	µg/L	1	12/14/2020 11:11 AM
4-Chlorotoluene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Acetone	ND		50	µg/L	1	12/14/2020 11:11 AM
Benzene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Bromobenzene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Bromochloromethane	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Bromodichloromethane	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Bromoform	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Bromomethane	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Carbon disulfide	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Carbon tetrachloride	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Chlorobenzene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Chloroethane	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Chloroform	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Chloromethane	ND		5.0	µg/L	1	12/14/2020 11:11 AM

**Note:**

# ALS Environmental

Date: 15-Dec-20

**Client:** ATC Group Services LLC

**Project:** Former IRS Property 200 West Fourth St Covington,

**Work Order:** 20120300

**Sample ID:** TMW-3

**Lab ID:** 20120300-06

**Collection Date:** 12/7/2020 02:50 PM

**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
cis-1,3-Dichloropropene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Dibromochloromethane	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Dibromomethane	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Dichlorodifluoromethane	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Ethylbenzene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Hexachlorobutadiene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Isopropylbenzene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
m,p-Xylene	ND		10	µg/L	1	12/14/2020 11:11 AM
Methyl tert-butyl ether	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Methylene chloride	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Naphthalene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
n-Butylbenzene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
n-Propylbenzene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
o-Xylene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
p-Isopropyltoluene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
sec-Butylbenzene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Styrene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
tert-Butylbenzene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Tetrachloroethene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Toluene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
trans-1,2-Dichloroethene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
trans-1,3-Dichloropropene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Trichloroethene	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Trichlorofluoromethane	ND		5.0	µg/L	1	12/14/2020 11:11 AM
Vinyl chloride	ND		2.0	µg/L	1	12/14/2020 11:11 AM
Xylenes, Total	ND		15	µg/L	1	12/14/2020 11:11 AM
Surr: 4-Bromofluorobenzene	92.9		61-131	%REC	1	12/14/2020 11:11 AM
Surr: Dibromofluoromethane	101		87-126	%REC	1	12/14/2020 11:11 AM
Surr: Toluene-d8	93.9		83.8-111	%REC	1	12/14/2020 11:11 AM

Note:

**Client:** ATC Group Services LLC  
**Project:** Former IRS Property 200 West Fourth St Covington,  
**Sample ID:** MW-12  
**Collection Date:** 12/7/2020 03:00 PM

**Work Order:** 20120300  
**Lab ID:** 20120300-07  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8260B</b>			Analyst: <b>TJH</b>
1,1,1,2-Tetrachloroethane	ND		5.0	µg/L	1	12/14/2020 11:33 AM
1,1,1-Trichloroethane	ND		5.0	µg/L	1	12/14/2020 11:33 AM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	1	12/14/2020 11:33 AM
1,1,2-Trichloroethane	ND		5.0	µg/L	1	12/14/2020 11:33 AM
1,1-Dichloroethane	ND		5.0	µg/L	1	12/14/2020 11:33 AM
1,1-Dichloroethene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
1,1-Dichloropropene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
1,2,3-Trichlorobenzene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
1,2,3-Trichloropropane	ND		5.0	µg/L	1	12/14/2020 11:33 AM
1,2,4-Trichlorobenzene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
1,2,4-Trimethylbenzene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
1,2-Dibromo-3-chloropropane	ND		5.0	µg/L	1	12/14/2020 11:33 AM
1,2-Dibromoethane	ND		5.0	µg/L	1	12/14/2020 11:33 AM
1,2-Dichlorobenzene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
1,2-Dichloroethane	ND		5.0	µg/L	1	12/14/2020 11:33 AM
1,2-Dichloropropane	ND		5.0	µg/L	1	12/14/2020 11:33 AM
1,3,5-Trimethylbenzene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
1,3-Dichlorobenzene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
1,3-Dichloropropane	ND		5.0	µg/L	1	12/14/2020 11:33 AM
1,4-Dichlorobenzene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
2,2-Dichloropropane	ND		5.0	µg/L	1	12/14/2020 11:33 AM
2-Butanone	ND		50	µg/L	1	12/14/2020 11:33 AM
2-Chlorotoluene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
2-Hexanone	ND		5.0	µg/L	1	12/14/2020 11:33 AM
4-Chlorotoluene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	12/14/2020 11:33 AM
Acetone	ND		50	µg/L	1	12/14/2020 11:33 AM
Benzene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
Bromobenzene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
Bromochloromethane	ND		5.0	µg/L	1	12/14/2020 11:33 AM
Bromodichloromethane	ND		5.0	µg/L	1	12/14/2020 11:33 AM
Bromoform	ND		5.0	µg/L	1	12/14/2020 11:33 AM
Bromomethane	ND		5.0	µg/L	1	12/14/2020 11:33 AM
Carbon disulfide	ND		5.0	µg/L	1	12/14/2020 11:33 AM
Carbon tetrachloride	ND		5.0	µg/L	1	12/14/2020 11:33 AM
Chlorobenzene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
Chloroethane	ND		5.0	µg/L	1	12/14/2020 11:33 AM
Chloroform	ND		5.0	µg/L	1	12/14/2020 11:33 AM
Chloromethane	ND		5.0	µg/L	1	12/14/2020 11:33 AM

Note:

# ALS Environmental

Date: 15-Dec-20

**Client:** ATC Group Services LLC

**Project:** Former IRS Property 200 West Fourth St Covington,

**Work Order:** 20120300

**Sample ID:** MW-12

**Lab ID:** 20120300-07

**Collection Date:** 12/7/2020 03:00 PM

**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
cis-1,3-Dichloropropene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
Dibromochloromethane	ND		5.0	µg/L	1	12/14/2020 11:33 AM
Dibromomethane	ND		5.0	µg/L	1	12/14/2020 11:33 AM
Dichlorodifluoromethane	ND		5.0	µg/L	1	12/14/2020 11:33 AM
Ethylbenzene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
Hexachlorobutadiene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
Isopropylbenzene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
m,p-Xylene	ND		10	µg/L	1	12/14/2020 11:33 AM
Methyl tert-butyl ether	ND		5.0	µg/L	1	12/14/2020 11:33 AM
Methylene chloride	ND		5.0	µg/L	1	12/14/2020 11:33 AM
Naphthalene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
n-Butylbenzene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
n-Propylbenzene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
o-Xylene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
p-Isopropyltoluene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
sec-Butylbenzene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
Styrene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
tert-Butylbenzene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
<b>Tetrachloroethene</b>	<b>110</b>		<b>5.0</b>	<b>µg/L</b>	1	12/14/2020 11:33 AM
Toluene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
trans-1,2-Dichloroethene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
trans-1,3-Dichloropropene	ND		5.0	µg/L	1	12/14/2020 11:33 AM
<b>Trichloroethene</b>	<b>7.3</b>		<b>5.0</b>	<b>µg/L</b>	1	12/14/2020 11:33 AM
Trichlorofluoromethane	ND		5.0	µg/L	1	12/14/2020 11:33 AM
Vinyl chloride	ND		2.0	µg/L	1	12/14/2020 11:33 AM
Xylenes, Total	ND		15	µg/L	1	12/14/2020 11:33 AM
Surr: 4-Bromofluorobenzene	97.8		61-131	%REC	1	12/14/2020 11:33 AM
Surr: Dibromofluoromethane	100		87-126	%REC	1	12/14/2020 11:33 AM
Surr: Toluene-d8	99.1		83.8-111	%REC	1	12/14/2020 11:33 AM

Note:

Client: ATC Group Services LLC

**QC BATCH REPORT**

Work Order: 20120300

Project: Former IRS Property 200 West Fourth St Covington

Batch ID: R186043

Instrument ID VMS1

Method: SW8260B

Mblk	Sample ID: BLK-R186043			Units: µg/L		Analysis Date: 12/11/2020 11:06 AM				
Client ID:		Run ID: VMS1_201211A		SeqNo: 2366835	Prep Date:	DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0								
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,1-Dichloropropene	ND	5.0								
1,2,3-Trichlorobenzene	ND	5.0								
1,2,3-Trichloropropane	ND	5.0								
1,2,4-Trichlorobenzene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromo-3-chloropropane	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichlorobenzene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
1,3-Dichlorobenzene	ND	5.0								
1,3-Dichloropropane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2,2-Dichloropropane	ND	5.0								
2-Butanone	ND	50								
2-Chlorotoluene	ND	5.0								
2-Hexanone	ND	5.0								
4-Chlorotoluene	ND	5.0								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	50								
Benzene	ND	5.0								
Bromobenzene	ND	5.0								
Bromochloromethane	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** ATC Group Services LLC  
**Work Order:** 20120300  
**Project:** Former IRS Property 200 West Fourth St Covington

## QC BATCH REPORT

Batch ID: <b>R186043</b>	Instrument ID <b>VMS1</b>	Method: <b>SW8260B</b>					
Dibromochloromethane	ND	5.0					
Dibromomethane	ND	5.0					
Dichlorodifluoromethane	ND	5.0					
Ethylbenzene	ND	5.0					
Hexachlorobutadiene	ND	5.0					
Isopropylbenzene	ND	5.0					
m,p-Xylene	ND	10					
Methyl tert-butyl ether	ND	5.0					
Methylene chloride	ND	5.0					
Naphthalene	ND	5.0					
n-Butylbenzene	ND	5.0					
n-Propylbenzene	ND	5.0					
o-Xylene	ND	5.0					
p-Isopropyltoluene	ND	5.0					
sec-Butylbenzene	ND	5.0					
Styrene	ND	5.0					
tert-Butylbenzene	ND	5.0					
Tetrachloroethene	ND	5.0					
Toluene	ND	5.0					
trans-1,2-Dichloroethene	ND	5.0					
trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Trichlorofluoromethane	ND	5.0					
Vinyl chloride	ND	2.0					
Xylenes, Total	ND	15					
Surr: 4-Bromofluorobenzene	50.65	0	50	0	101	61-131	0
Surr: Dibromofluoromethane	51.09	0	50	0	102	87-126	0
Surr: Toluene-d8	51.39	0	50	0	103	83.8-111	0

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** ATC Group Services LLC  
**Work Order:** 20120300  
**Project:** Former IRS Property 200 West Fourth St Covington

## QC BATCH REPORT

Batch ID: **R186043**      Instrument ID **VMS1**      Method: **SW8260B**

LCS	Sample ID: <b>LCS-R186043</b>			Units: <b>µg/L</b>		Analysis Date: <b>12/11/2020 10:21 AM</b>				
Client ID:	Run ID: <b>VMS1_201211A</b>			SeqNo: <b>2366834</b>		Prep Date:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	45.32	5.0	50	0	90.6	48.4-140		0		
1,1-Dichloroethene	50.83	5.0	50	0	102	45.5-150		0		
1,2-Dichloroethane	43.04	5.0	50	0	86.1	46.5-141		0		
1,3-Dichlorobenzene	46.26	5.0	50	0	92.5	42.5-133		0		
1,4-Dichlorobenzene	44.55	5.0	50	0	89.1	38.9-136		0		
Benzene	45.81	5.0	50	0	91.6	50.7-134		0		
Carbon tetrachloride	48.59	5.0	50	0	97.2	45.5-143		0		
Chlorobenzene	44.95	5.0	50	0	89.9	45-133		0		
Chloroform	47.96	5.0	50	0	95.9	52.4-136		0		
cis-1,2-Dichloroethene	49.79	5.0	50	0	99.6	49.7-138		0		
Ethylbenzene	46.74	5.0	50	0	93.5	37.8-145		0		
m,p-Xylene	95.13	10	100	0	95.1	25.1-163		0		
Methyl tert-butyl ether	53.39	5.0	50	0	107	26.7-174		0		
Styrene	47.03	5.0	50	0	94.1	26.3-172		0		
Tetrachloroethene	41.95	5.0	50	0	83.9	37.3-139		0		
Toluene	46.18	5.0	50	0	92.4	44-135		0		
Trichloroethene	45.39	5.0	50	0	90.8	45.9-140		0		
Xylenes, Total	142.8	15	150	0	95.2	47.3-132		0		
Surr: 4-Bromofluorobenzene	50.61	0	50	0	101	61-131		0		
Surr: Dibromofluoromethane	51.76	0	50	0	104	87-126		0		
Surr: Toluene-d8	50.06	0	50	0	100	83.8-111		0		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** ATC Group Services LLC  
**Work Order:** 20120300  
**Project:** Former IRS Property 200 West Fourth St Covington

## QC BATCH REPORT

Batch ID: **R186043**      Instrument ID **VMS1**      Method: **SW8260B**

MS	Sample ID: <b>20120159-19A MS</b>			Units: <b>µg/L</b>		Analysis Date: <b>12/11/2020 12:20 PM</b>				
Client ID:	Run ID: <b>VMS1_201211A</b>			SeqNo: <b>2366838</b>		Prep Date:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	47.52	5.0	50	0	95	40.4-134		0		
1,1-Dichloroethene	50.99	5.0	50	0	102	45.3-151		0		
1,2-Dichloroethane	46.68	5.0	50	0	93.4	37-139		0		
1,3-Dichlorobenzene	46.94	5.0	50	0	93.9	42.9-121		0		
1,4-Dichlorobenzene	45.91	5.0	50	0	91.8	53.4-129		0		
Benzene	48.6	5.0	50	0	97.2	37.4-144		0		
Carbon tetrachloride	46.21	5.0	50	0	92.4	33.8-150		0		
Chlorobenzene	50.63	5.0	50	0	101	52.4-132		0		
Chloroform	51.11	5.0	50	0	102	45.5-135		0		
cis-1,2-Dichloroethene	51.7	5.0	50	0	103	35.2-150		0		
Ethylbenzene	50.37	5.0	50	0	101	46.5-146		0		
m,p-Xylene	99.07	10	100	0	99.1	38.2-167		0		
Styrene	44.34	5.0	50	0	88.7	20.9-184		0		
Tetrachloroethene	44.27	5.0	50	0	88.5	55.2-134		0		
Toluene	49.49	5.0	50	0	99	32.7-140		0		
Trichloroethene	47.4	5.0	50	0	94.8	29.1-153		0		
Xylenes, Total	149.8	15	150	0	99.9	43.6-148		0		
Surr: 4-Bromofluorobenzene	48.8	0	50	0	97.6	61-131		0		
Surr: Dibromofluoromethane	50.8	0	50	0	102	87-126		0		
Surr: Toluene-d8	49.8	0	50	0	99.6	83.8-111		0		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** ATC Group Services LLC  
**Work Order:** 20120300  
**Project:** Former IRS Property 200 West Fourth St Covington

## QC BATCH REPORT

Batch ID: **R186043**      Instrument ID **VMS1**      Method: **SW8260B**

MSD				Sample ID: <b>20120159-19A MSD</b>		Units: <b>µg/L</b>		Analysis Date: <b>12/11/2020 12:43 PM</b>		
Client ID:		Run ID: <b>VMS1_201211A</b>		SeqNo: <b>2366839</b>		Prep Date:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	42.22	5.0	50	0	84.4	40.4-134	47.52	11.8	20	
1,1-Dichloroethene	44.72	5.0	50	0	89.4	45.3-151	50.99	13.1	20	
1,2-Dichloroethane	44.96	5.0	50	0	89.9	37-139	46.68	3.75	20	
1,3-Dichlorobenzene	45.08	5.0	50	0	90.2	42.9-121	46.94	4.04	20	
1,4-Dichlorobenzene	43.81	5.0	50	0	87.6	53.4-129	45.91	4.68	20	
Benzene	43.78	5.0	50	0	87.6	37.4-144	48.6	10.4	20	
Carbon tetrachloride	40.98	5.0	50	0	82	33.8-150	46.21	12	20	
Chlorobenzene	45.4	5.0	50	0	90.8	52.4-132	50.63	10.9	20	
Chloroform	45.89	5.0	50	0	91.8	45.5-135	51.11	10.8	20	
cis-1,2-Dichloroethene	46.77	5.0	50	0	93.5	35.2-150	51.7	10	21	
Ethylbenzene	45.07	5.0	50	0	90.1	46.5-146	50.37	11.1	20	
m,p-Xylene	89.52	10	100	0	89.5	38.2-167	99.07	10.1	20	
Styrene	40.99	5.0	50	0	82	20.9-184	44.34	7.85	20	
Tetrachloroethene	39.8	5.0	50	0	79.6	55.2-134	44.27	10.6	20	
Toluene	44.65	5.0	50	0	89.3	32.7-140	49.49	10.3	20	
Trichloroethene	43.12	5.0	50	0	86.2	29.1-153	47.4	9.46	20	
Xylenes, Total	135.9	15	150	0	90.6	43.6-148	149.8	9.75	20	
Surr: 4-Bromofluorobenzene	49.11	0	50	0	98.2	61-131	48.8	0.633		
Surr: Dibromofluoromethane	50.41	0	50	0	101	87-126	50.8	0.771		
Surr: Toluene-d8	49.1	0	50	0	98.2	83.8-111	49.8	1.42		

The following samples were analyzed in this batch:

20120300-04A      20120300-05A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** ATC Group Services LLC  
**Work Order:** 20120300  
**Project:** Former IRS Property 200 West Fourth St Covington

## QC BATCH REPORT

Batch ID: **R186064**      Instrument ID **VMS1**      Method: **SW8260B**

MBLK	Sample ID: <b>BLK-R186064</b>	Units: <b>µg/L</b>			Analysis Date: <b>12/14/2020 10:49 AM</b>				
Client ID:	Run ID: <b>VMS1_201214A</b>				SeqNo: <b>2367709</b>	Prep Date:	DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0							
1,1,1-Trichloroethane	ND	5.0							
1,1,2,2-Tetrachloroethane	ND	5.0							
1,1,2-Trichloroethane	ND	5.0							
1,1-Dichloroethane	ND	5.0							
1,1-Dichloroethene	ND	5.0							
1,1-Dichloropropene	ND	5.0							
1,2,3-Trichlorobenzene	ND	5.0							
1,2,3-Trichloropropane	ND	5.0							
1,2,4-Trichlorobenzene	ND	5.0							
1,2,4-Trimethylbenzene	ND	5.0							
1,2-Dibromo-3-chloropropane	ND	5.0							
1,2-Dibromoethane	ND	5.0							
1,2-Dichlorobenzene	ND	5.0							
1,2-Dichloroethane	ND	5.0							
1,2-Dichloropropane	ND	5.0							
1,3,5-Trimethylbenzene	ND	5.0							
1,3-Dichlorobenzene	ND	5.0							
1,3-Dichloropropane	ND	5.0							
1,4-Dichlorobenzene	ND	5.0							
2,2-Dichloropropane	ND	5.0							
2-Butanone	ND	50							
2-Chlorotoluene	ND	5.0							
2-Hexanone	ND	5.0							
4-Chlorotoluene	ND	5.0							
4-Methyl-2-pentanone	ND	5.0							
Acetone	ND	50							
Benzene	ND	5.0							
Bromobenzene	ND	5.0							
Bromochloromethane	ND	5.0							
Bromodichloromethane	ND	5.0							
Bromoform	ND	5.0							
Bromomethane	ND	5.0							
Carbon disulfide	0.49	5.0							J
Carbon tetrachloride	ND	5.0							
Chlorobenzene	ND	5.0							
Chloroethane	ND	5.0							
Chloroform	ND	5.0							
Chloromethane	ND	5.0							
cis-1,2-Dichloroethene	ND	5.0							
cis-1,3-Dichloropropene	ND	5.0							
Dibromochloromethane	ND	5.0							

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** ATC Group Services LLC  
**Work Order:** 20120300  
**Project:** Former IRS Property 200 West Fourth St Covington

## QC BATCH REPORT

Batch ID: <b>R186064</b>	Instrument ID <b>VMS1</b>	Method: <b>SW8260B</b>					
Dibromomethane	ND	5.0					
Dichlorodifluoromethane	ND	5.0					
Ethylbenzene	ND	5.0					
Hexachlorobutadiene	ND	5.0					
Isopropylbenzene	ND	5.0					
m,p-Xylene	ND	10					
Methyl tert-butyl ether	ND	5.0					
Methylene chloride	ND	5.0					
Naphthalene	ND	5.0					
n-Butylbenzene	ND	5.0					
n-Propylbenzene	ND	5.0					
o-Xylene	ND	5.0					
p-Isopropyltoluene	ND	5.0					
sec-Butylbenzene	ND	5.0					
Styrene	ND	5.0					
tert-Butylbenzene	ND	5.0					
Tetrachloroethene	ND	5.0					
Toluene	ND	5.0					
trans-1,2-Dichloroethene	ND	5.0					
trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Trichlorofluoromethane	ND	5.0					
Vinyl chloride	ND	2.0					
Xylenes, Total	ND	15					
Surr: 4-Bromofluorobenzene	48.24	0	50	0	96.5	61-131	0
Surr: Dibromofluoromethane	49.47	0	50	0	98.9	87-126	0
Surr: Toluene-d8	50.02	0	50	0	100	83.8-111	0

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** ATC Group Services LLC  
**Work Order:** 20120300  
**Project:** Former IRS Property 200 West Fourth St Covington

## QC BATCH REPORT

Batch ID: **R186064**      Instrument ID **VMS1**      Method: **SW8260B**

LCS	Sample ID: <b>LCS-R186064</b>			Units: <b>µg/L</b>		Analysis Date: <b>12/14/2020 10:04 AM</b>				
Client ID:	Run ID: <b>VMS1_201214A</b>			SeqNo: <b>2367708</b>		Prep Date:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	46.13	5.0	50	0	92.3	48.4-140	0	0		
1,1-Dichloroethene	46.5	5.0	50	0	93	45.5-150	0	0		
1,2-Dichloroethane	45.23	5.0	50	0	90.5	46.5-141	0	0		
1,3-Dichlorobenzene	44.5	5.0	50	0	89	42.5-133	0	0		
1,4-Dichlorobenzene	43.39	5.0	50	0	86.8	38.9-136	0	0		
Benzene	45.06	5.0	50	0	90.1	50.7-134	0	0		
Carbon tetrachloride	48.19	5.0	50	0	96.4	45.5-143	0	0		
Chlorobenzene	46.3	5.0	50	0	92.6	45-133	0	0		
Chloroform	46.7	5.0	50	0	93.4	52.4-136	0	0		
cis-1,2-Dichloroethene	47.22	5.0	50	0	94.4	49.7-138	0	0		
Ethylbenzene	47.41	5.0	50	0	94.8	37.8-145	0	0		
m,p-Xylene	94.89	10	100	0	94.9	25.1-163	0	0		
Methyl tert-butyl ether	51.51	5.0	50	0	103	26.7-174	0	0		
Styrene	47.13	5.0	50	0	94.3	26.3-172	0	0		
Tetrachloroethene	40.88	5.0	50	0	81.8	37.3-139	0	0		
Toluene	45.5	5.0	50	0	91	44-135	0	0		
Trichloroethene	42.7	5.0	50	0	85.4	45.9-140	0	0		
Xylenes, Total	143.3	15	150	0	95.5	47.3-132	0	0		
Surr: 4-Bromofluorobenzene	48.21	0	50	0	96.4	61-131	0	0		
Surr: Dibromofluoromethane	50.79	0	50	0	102	87-126	0	0		
Surr: Toluene-d8	49.63	0	50	0	99.3	83.8-111	0	0		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

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**Client:** ATC Group Services LLC  
**Work Order:** 20120300  
**Project:** Former IRS Property 200 West Fourth St Covington

## QC BATCH REPORT

Batch ID: **R186064**      Instrument ID **VMS1**      Method: **SW8260B**

MS	Sample ID: <b>20120512-04A MS</b>			Units: <b>µg/L</b>		Analysis Date: <b>12/14/2020 02:36 PM</b>				
Client ID:	Run ID: <b>VMS1_201214A</b>			SeqNo: <b>2367716</b>		Prep Date:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	57.76	5.0	50	0	116	40.4-134		0		
1,1-Dichloroethene	59.15	5.0	50	0	118	45.3-151		0		
1,2-Dichloroethane	54.22	5.0	50	0	108	37-139		0		
1,3-Dichlorobenzene	53.33	5.0	50	0	107	42.9-121		0		
1,4-Dichlorobenzene	51.68	5.0	50	0	103	53.4-129		0		
Benzene	55.16	5.0	50	0	110	37.4-144		0		
Carbon tetrachloride	59.26	5.0	50	0	119	33.8-150		0		
Chlorobenzene	54.95	5.0	50	0	110	52.4-132		0		
Chloroform	57.48	5.0	50	0	115	45.5-135		0		
cis-1,2-Dichloroethene	58.5	5.0	50	0	117	35.2-150		0		
Ethylbenzene	56.77	5.0	50	0.11	113	46.5-146		0		
m,p-Xylene	108.1	10	100	0	108	38.2-167		0		
Styrene	36.78	5.0	50	0	73.6	20.9-184		0		
Tetrachloroethene	51.91	5.0	50	0	104	55.2-134		0		
Toluene	57.05	5.0	50	1.91	110	32.7-140		0		
Trichloroethene	54.17	5.0	50	0	108	29.1-153		0		
Xylenes, Total	163.4	15	150	0	109	43.6-148		0		
Surr: 4-Bromofluorobenzene	49.44	0	50	0	98.9	61-131		0		
Surr: Dibromofluoromethane	51.62	0	50	0	103	87-126		0		
Surr: Toluene-d8	50.16	0	50	0	100	83.8-111		0		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** ATC Group Services LLC  
**Work Order:** 20120300  
**Project:** Former IRS Property 200 West Fourth St Covington

## QC BATCH REPORT

Batch ID: **R186064**      Instrument ID **VMS1**      Method: **SW8260B**

MSD				Sample ID: <b>20120512-04A MSD</b>			Units: <b>µg/L</b>		Analysis Date: <b>12/14/2020 02:59 PM</b>		
Client ID:		Run ID: <b>VMS1_201214A</b>		SeqNo: <b>2367717</b>			Prep Date:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,1,1-Trichloroethane	55.7	5.0	50	0	111	40.4-134	57.76	3.63	20		
1,1-Dichloroethene	55.61	5.0	50	0	111	45.3-151	59.15	6.17	20		
1,2-Dichloroethane	53.66	5.0	50	0	107	37-139	54.22	1.04	20		
1,3-Dichlorobenzene	52.49	5.0	50	0	105	42.9-121	53.33	1.59	20		
1,4-Dichlorobenzene	51.26	5.0	50	0	103	53.4-129	51.68	0.816	20		
Benzene	52.71	5.0	50	0	105	37.4-144	55.16	4.54	20		
Carbon tetrachloride	56.34	5.0	50	0	113	33.8-150	59.26	5.05	20		
Chlorobenzene	51.24	5.0	50	0	102	52.4-132	54.95	6.99	20		
Chloroform	55.58	5.0	50	0	111	45.5-135	57.48	3.36	20		
cis-1,2-Dichloroethene	57.74	5.0	50	0	115	35.2-150	58.5	1.31	21		
Ethylbenzene	52.16	5.0	50	0.11	104	46.5-146	56.77	8.46	20		
m,p-Xylene	99.76	10	100	0	99.8	38.2-167	108.1	8.02	20		
Styrene	35.03	5.0	50	0	70.1	20.9-184	36.78	4.87	20		
Tetrachloroethene	46.38	5.0	50	0	92.8	55.2-134	51.91	11.3	20		
Toluene	54.78	5.0	50	1.91	106	32.7-140	57.05	4.06	20		
Trichloroethene	51.63	5.0	50	0	103	29.1-153	54.17	4.8	20		
Xylenes, Total	151.6	15	150	0	101	43.6-148	163.4	7.47	20		
Surr: 4-Bromofluorobenzene	48.42	0	50	0	96.8	61-131	49.44	2.08			
Surr: Dibromofluoromethane	54.23	0	50	0	108	87-126	51.62	4.93			
Surr: Toluene-d8	50.2	0	50	0	100	83.8-111	50.16	0.0797			

The following samples were analyzed in this batch:

20120300-06A      20120300-07A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

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**Client:** ATC Group Services LLC  
**Work Order:** 20120300  
**Project:** Former IRS Property 200 West Fourth St Covington

## QC BATCH REPORT

Batch ID: **R186084**      Instrument ID **VMS2**      Method: **SW8260B**

mblk		Sample ID: mblk-R186084		Units: <b>µg/Kg</b>		Analysis Date: <b>12/14/2020 08:07 AM</b>				
Client ID:		Run ID: <b>VMS2_201214A</b>		SeqNo: <b>2367608</b>		Prep Date:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0								
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,1-Dichloropropene	ND	5.0								
1,2,3-Trichlorobenzene	ND	5.0								
1,2,3-Trichloropropane	ND	5.0								
1,2,4-Trichlorobenzene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromo-3-chloropropane	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichlorobenzene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
1,3-Dichlorobenzene	ND	5.0								
1,3-Dichloropropane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2,2-Dichloropropane	ND	5.0								
2-Butanone	ND	50								
2-Chlorotoluene	ND	5.0								
2-Hexanone	ND	5.0								
4-Chlorotoluene	ND	5.0								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	50								
Benzene	ND	5.0								
Bromobenzene	ND	5.0								
Bromochloromethane	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

QC Page: 11 of 15

**Client:** ATC Group Services LLC  
**Work Order:** 20120300  
**Project:** Former IRS Property 200 West Fourth St Covington

## QC BATCH REPORT

Batch ID: <b>R186084</b>	Instrument ID <b>VMS2</b>	Method: <b>SW8260B</b>				
Dibromomethane	ND	5.0				
Dichlorodifluoromethane	ND	5.0				
Ethylbenzene	ND	5.0				
Hexachlorobutadiene	ND	5.0				
Isopropylbenzene	ND	5.0				
m,p-Xylene	ND	10				
Methyl tert-butyl ether	ND	5.0				
Methylene chloride	ND	20				
Naphthalene	ND	5.0				
n-Butylbenzene	ND	5.0				
n-Propylbenzene	ND	5.0				
o-Xylene	ND	5.0				
p-Isopropyltoluene	ND	5.0				
sec-Butylbenzene	ND	5.0				
Styrene	ND	5.0				
tert-Butylbenzene	ND	5.0				
Tetrachloroethene	ND	5.0				
Toluene	ND	5.0				
trans-1,2-Dichloroethene	ND	5.0				
trans-1,3-Dichloropropene	ND	5.0				
Trichloroethene	ND	5.0				
Trichlorofluoromethane	ND	5.0				
Vinyl chloride	ND	5.0				
Xylenes, Total	ND	15				
<i>Surr: 4-Bromofluorobenzene</i>	49.67	0	50	0	99.3	62.7-159
<i>Surr: Dibromofluoromethane</i>	57.58	0	50	0	115	88.4-146
<i>Surr: Toluene-d8</i>	51.97	0	50	0	104	83-124

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

QC Page: 12 of 15

**Client:** ATC Group Services LLC  
**Work Order:** 20120300  
**Project:** Former IRS Property 200 West Fourth St Covington

## QC BATCH REPORT

Batch ID: **R186084**      Instrument ID **VMS2**      Method: **SW8260B**

Ics		Sample ID: <b>Ics-R186084</b>		Units: <b>µg/Kg</b>		Analysis Date: <b>12/14/2020 07:42 AM</b>				
Client ID:		Run ID: <b>VMS2_201214A</b>		SeqNo: <b>2367607</b>		Prep Date:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	59.43	5.0	50	0	119	53.6-149	0	0		
1,1-Dichloroethene	64.82	5.0	50	0	130	38.8-176	0	0		
1,2-Dichloroethane	60	5.0	50	0	120	54.4-145	0	0		
1,3-Dichlorobenzene	52.93	5.0	50	0	106	54.2-137	0	0		
1,4-Dichlorobenzene	52.22	5.0	50	0	104	52.8-135	0	0		
Benzene	61.54	5.0	50	0	123	56-148	0	0		
Carbon tetrachloride	63.18	5.0	50	0	126	51.9-151	0	0		
Chlorobenzene	52.95	5.0	50	0	106	55.4-137	0	0		
Chloroform	65.32	5.0	50	0	131	51.1-147	0	0		
cis-1,2-Dichloroethene	62.51	5.0	50	0	125	47.6-149	0	0		
Ethylbenzene	56.03	5.0	50	0	112	55.8-142	0	0		
m,p-Xylene	116.6	10	100	0	117	57.6-141	0	0		
Styrene	55.94	5.0	50	0	112	59.6-143	0	0		
Tetrachloroethene	45.18	5.0	50	0	90.4	56.2-160	0	0		
Toluene	60.94	5.0	50	0	122	56-143	0	0		
Trichloroethene	58.64	5.0	50	0	117	56.5-143	0	0		
Surr: 4-Bromofluorobenzene	49.69	0	50	0	99.4	62.7-159	0	0		
Surr: Dibromofluoromethane	50.43	0	50	0	101	88.4-146	0	0		
Surr: Toluene-d8	50.92	0	50	0	102	83-124	0	0		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

QC Page: 13 of 15

**Client:** ATC Group Services LLC  
**Work Order:** 20120300  
**Project:** Former IRS Property 200 West Fourth St Covington

## QC BATCH REPORT

Batch ID: **R186084**      Instrument ID **VMS2**      Method: **SW8260B**

ms	Sample ID: <b>20120270-02a</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>12/14/2020 09:13 AM</b>				
Client ID:	Run ID: <b>VMS2_201214A</b>			SeqNo: <b>2367609</b>		Prep Date:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	60.35	5.0	50	0	121	66.9-140	0	0		
1,1-Dichloroethene	62.75	5.0	50	0	126	41.4-161	0	0		
1,2-Dichloroethane	59.56	5.0	50	0	119	58.9-137	0	0		
1,3-Dichlorobenzene	46.16	5.0	50	0	92.3	56.3-126	0	0		
1,4-Dichlorobenzene	45.03	5.0	50	0	90.1	58.3-122	0	0		
Benzene	61.29	5.0	50	0	123	35.8-162	0	0		
Carbon tetrachloride	64.01	5.0	50	0	128	53.2-137	0	0		
Chlorobenzene	49.88	5.0	50	0	99.8	65.6-137	0	0		
Chloroform	64.49	5.0	50	0	129	58-130	0	0		
cis-1,2-Dichloroethene	61.24	5.0	50	0	122	52.9-138	0	0		
Ethylbenzene	53.22	5.0	50	0	106	57.5-134	0	0		
m,p-Xylene	109.9	10	100	0	110	56.4-135	0	0		
Styrene	52.8	5.0	50	0	106	60.9-135	0	0		
Tetrachloroethene	42.77	5.0	50	0	85.5	52.1-160	0	0		
Toluene	58.09	5.0	50	0	116	67.7-135	0	0		
Trichloroethene	55.96	5.0	50	0	112	56.5-136	0	0		
Surr: 4-Bromofluorobenzene	50.38	0	50	0	101	62.7-159	0	0		
Surr: Dibromofluoromethane	50.95	0	50	0	102	88.4-146	0	0		
Surr: Toluene-d8	50.26	0	50	0	101	83-124	0	0		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

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**Client:** ATC Group Services LLC  
**Work Order:** 20120300  
**Project:** Former IRS Property 200 West Fourth St Covington

## QC BATCH REPORT

Batch ID: **R186084**      Instrument ID **VMS2**      Method: **SW8260B**

msd	Sample ID: <b>20120270-02a</b>			Units: <b>µg/Kg</b>			Analysis Date: <b>12/14/2020 09:39 AM</b>			
Client ID:	Run ID: <b>VMS2_201214A</b>			SeqNo: <b>2367610</b>			Prep Date:			DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	56.35	5.0	50	0	113	66.9-140	60.35	6.86	31.2	
1,1-Dichloroethene	58.51	5.0	50	0	117	41.4-161	62.75	6.99	38.1	
1,2-Dichloroethane	55.83	5.0	50	0	112	58.9-137	59.56	6.47	26.2	
1,3-Dichlorobenzene	42.85	5.0	50	0	85.7	56.3-126	46.16	7.44	21	
1,4-Dichlorobenzene	41.68	5.0	50	0	83.4	58.3-122	45.03	7.73	28.7	
Benzene	56.11	5.0	50	0	112	35.8-162	61.29	8.82	23.6	
Carbon tetrachloride	57.95	5.0	50	0	116	53.2-137	64.01	9.94	32.3	
Chlorobenzene	45.76	5.0	50	0	91.5	65.6-137	49.88	8.62	20	
Chloroform	59.56	5.0	50	0	119	58-130	64.49	7.95	28.2	
cis-1,2-Dichloroethene	57.45	5.0	50	0	115	52.9-138	61.24	6.39	23.7	
Ethylbenzene	48.47	5.0	50	0	96.9	57.5-134	53.22	9.34	24.9	
m,p-Xylene	101	10	100	0	101	56.4-135	109.9	8.48	25.1	
Styrene	47.94	5.0	50	0	95.9	60.9-135	52.8	9.65	22.8	
Tetrachloroethene	39.51	5.0	50	0	79	52.1-160	42.77	7.92	24.7	
Toluene	54.27	5.0	50	0	109	67.7-135	58.09	6.8	20	
Trichloroethene	52.09	5.0	50	0	104	56.5-136	55.96	7.16	20	
Surr: 4-Bromofluorobenzene	50.38	0	50	0	101	62.7-159	50.38	0		
Surr: Dibromofluoromethane	51.1	0	50	0	102	88.4-146	50.95	0.294		
Surr: Toluene-d8	50.23	0	50	0	100	83-124	50.26	0.0597		

The following samples were analyzed in this batch:

20120300-01A      20120300-02A      20120300-03A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

QC Page: 15 of 15

**Client:** ATC Group Services LLC  
**Project:** Former IRS Property 200 West Fourth St Covington,  
**WorkOrder:** 20120300

**QUALIFIERS,  
ACRONYMS, UNITS**

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<b><u>Acronym</u></b>	<b><u>Description</u></b>
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% of sample	
µg/Kg-dry	
µg/L	

# ALS Environmental

## Sample Receipt Checklist

Client Name: ATC-CINCINNATI

Date/Time Received: 08-Dec-20 12:30

Work Order: 20120300

Received by: SNH

Checklist completed by <u>Jan Wilcox</u> eSignature	08-Dec-20 Date	Reviewed by: <u>Rob Nieman</u> eSignature	10-Dec-20 Date
--	-------------------	--	-------------------

Matrices: water/soil

Carrier name: Client

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>2.2</u> <u>119059</u>		
Cooler(s)/Kit(s):	<input type="text"/>		
Date/Time sample(s) sent to storage:	<input type="text"/>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<input type="text"/> -		

Login Notes:

---

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



**Ship To:** **ALS Environmental**  
4388 Glendale Milford Rd.  
Cincinnati, Ohio 45242  
**Phone:** **(513) 733-5336**  
**Fax:** **(513) 733-5347**

## Field Chain-of-Custody Record

Page \_\_\_\_\_ of \_\_\_\_\_

61325 REV 10/2017

REV 10/2017

Date: 12-7-2020

20120 300

Date: 12-7-2020 Purchase Order No.: \_\_\_\_\_  
Company Name: ATC Group Services Project No.: 241EN00753 Phase 3

Address: 11121 Canal Road Sampling Site: Former IRS Property  
Sharonville Ohio 45241 200 West Fourth Street Covington, KY  
City State Zip

Person to Contact: Mike Luessen Billing Address (if different): \_\_\_\_\_

Email Address: Mike.Lvessen@ATCGS.com

Telephone ( ): 513-771-2112

1990-01-01 00:00:00 1990-01-01 00:00:00

Alternate Contact Person: \_\_\_\_\_

ALS Lab ID	Sample ID / Description	Date	Time	Pr	Sa	#	
	SB - 19 (16-18')	12-7-20	11:20	9	S	1	x
	SB - 20 (16-18')		12:30	9	S	1	x
	SB - 21 (16-18')		13:40	9	S	1	x
	TMW - 1		14:30	1/9	W	2	x
	TMW - 2		14:40	1/9	W	2	x
	TMW - 3	↓	14:50	1/9	W	2	x
	MW - 12	12-7-20	15:00	1/9	W	2	x

### Notes:

1 week TAT requested, @ NO surcharge

Preservation Key: 1 - HCl    2 - HNO<sub>3</sub>    3 - H<sub>2</sub>SO<sub>4</sub>    4 - NaOH    5 - Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>    6 - NaHSO<sub>3</sub>    7 - NaOH/ZnAcetate    8 - Other    9 - 4°C    Matrix Key: A - Air    B - Bulk    S - Soil    W - Water

Refiniqued By: M. J. R. Time / Date: 1/21/18 Received By: [Signature]

Relinquished By: \_\_\_\_\_ Time / Date: \_\_\_\_\_ Received By: \_\_\_\_\_

**Relinquished By:** \_\_\_\_\_ **Time / Date**: \_\_\_\_\_ **Received By:** \_\_\_\_\_  
*(Signature)* *(Signature)*

<input checked="" type="checkbox"/> REGULAR Status	<input type="checkbox"/> RUSH Status	RESULTS REQUIRED BY: (Date) <u>12-15-20</u>
CONTACT ALS ENVIRONMENTAL PRIOR TO SENDING SAMPLES		
OH VAP: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	BUSTR: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	NELAC: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
ANALYSIS REQUESTED		
Preservation Key #	Sample Type / Matrix Key Abbr.	# of Sample Containers
9	S	1 X
9	S	1 X
9	S	1 X
1/9	W	2 X

ALS LAB USE ONLY				
COOLER TEMP:	2.2 °C		TAKEN WITH IR#:	119063 119059
COOLING METHOD:	NONE	COOLER	WET ICE	DRY ICE ICE PACK
DELIVERY METHOD:	CLIENT	DROP BOX	FEDEX	UPS
STD MAIL	PRTY MAIL	ALS	COURIER	OTHER: _____
CUSTODY SEALS:	NOT REQUIRED	COOLER	PACKAGE	SAMPLES
pH ADJUSTMENTS:				

## **Attachment E**

## **VISL Calculations**

**Site-specific VISL Results**  
**Commercial Equation Inputs**

1

\* Inputted values different from Commercial defaults are highlighted.  
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Variable	Commercial Air Default Value	Form-input Value
AF <sub>gw</sub> (Attenuation Factor Groundwater) unitless	0.001	0.001
AF <sub>ss</sub> (Attenuation Factor Sub-Slab) unitless	0.03	0.03
AT <sub>w</sub> (averaging time - composite worker)	365	365
ED <sub>w</sub> (exposure duration - composite worker) yr	25	25
EF <sub>w</sub> (exposure frequency - composite worker) day/yr	250	250
ET <sub>w</sub> (exposure time - composite worker) hr	8	8
THQ (target hazard quotient) unitless	0.1	1
LT (lifetime) yr	70	70
TR (target risk) unitless	1.0E-06	1.0E-06

**Commercial Vapor Intrusion Screening Levels (VISL)**
**Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level;**
**H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.**

Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Soil Source? ( $C_{vp} > C_{i,a}$ , Target?)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Groundwater Source? ( $C_{hc} > C_{i,a}$ , Target?)	Target Indoor Air Concentration (TCR=1E-06 or THQ=1) $\text{MIN}(C_{ia,c}, C_{ia,nc})$ ( $\mu\text{g}/\text{m}^3$ )	Toxicity Basis
Acetone	67-64-1	Yes	Yes	Yes	Yes	1.35E+05	NC
Benzene	71-43-2	Yes	Yes	Yes	Yes	1.57E+00	CA
Carbon Disulfide	75-15-0	Yes	Yes	Yes	Yes	3.07E+03	NC
Chloromethane	74-87-3	Yes	Yes	Yes	Yes	3.94E+02	NC
Cyclohexane	110-82-7	Yes	Yes	Yes	Yes	2.63E+04	NC
Dichlorodifluoromethane	75-71-8	Yes	Yes	Yes	Yes	4.38E+02	NC
Ethylbenzene	100-41-4	Yes	Yes	Yes	Yes	4.91E+00	CA
Heptane, N-	142-82-5	Yes	Yes	Yes	Yes	1.75E+03	NC
Hexane, N-	110-54-3	Yes	Yes	Yes	Yes	3.07E+03	NC
Hexanone, 2-	591-78-6	Yes	Yes	Yes	Yes	1.31E+02	NC
Isopropanol	67-63-0	Yes	Yes	Yes	Yes	8.76E+02	NC
Methyl Ethyl Ketone (2-Butanone)	78-93-3	Yes	Yes	Yes	Yes	2.19E+04	NC
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	Yes	Yes	Yes	Yes	1.31E+04	NC
Naphthalene	91-20-3	Yes	Yes	Yes	Yes	3.61E-01	CA
Tetrachloroethylene	127-18-4	Yes	Yes	Yes	Yes	4.72E+01	CA
Toluene	108-88-3	Yes	Yes	Yes	Yes	2.19E+04	NC
Trichloroethane, 1,1,1-	71-55-6	Yes	Yes	Yes	Yes	2.19E+04	NC
Trichloroethylene	79-01-6	Yes	Yes	Yes	Yes	2.99E+00	CA
Trichlorofluoromethane	75-69-4	Yes	No	No Inhal. Tox. Info	No Inhal. Tox. Info		
Trimethylbenzene, 1,2,4-	95-63-6	Yes	Yes	Yes	Yes	2.63E+02	NC
Trimethylbenzene, 1,3,5-	108-67-8	Yes	Yes	Yes	Yes	2.63E+02	NC
Xylenes	1330-20-7	Yes	Yes	Yes	Yes	4.38E+02	NC

**Commercial Vapor Intrusion Screening Levels (VISL)**
**Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level;**
**H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.**

Chemical	Target Sub-Slab and Near-source Soil Gas Concentration (TCR=1E-06 or THQ=1) $C_{sg}$ ,Target ( $\mu\text{g}/\text{m}^3$ )	Target Groundwater Concentration (TCR=1E-06 or THQ=1) $C_{gw}$ ,Target ( $\mu\text{g}/\text{L}$ )	Is Target Groundwater Concentration < MCL? ( $C_{gw}$ < MCL?)	Pure Phase Vapor Concentration $C_{vp}$ (25 °C)\ ( $\mu\text{g}/\text{m}^3$ )	Maximum Groundwater Vapor Concentration $C_{hc}$ ( $\mu\text{g}/\text{m}^3$ )	Temperature for Maximum Groundwater Vapor Concentration (°C)
Acetone	4.51E+06	9.46E+07	--	7.25E+08	1.43E+09	25
Benzene	5.24E+01	6.93E+00	No (5)	3.98E+08	4.06E+08	25
Carbon Disulfide	1.02E+05	5.21E+03	--	1.47E+09	1.27E+09	25
Chloromethane	1.31E+04	1.09E+03	--	1.17E+10	1.92E+09	25
Cyclohexane	8.76E+05	4.29E+03	--	4.39E+08	3.37E+08	25
Dichlorodifluoromethane	1.46E+04	3.12E+01	--	3.15E+10	3.93E+09	25
Ethylbenzene	1.64E+02	1.52E+01	Yes (700)	5.48E+07	5.44E+07	25
Heptane, N-	5.84E+04	2.14E+01	--	2.48E+08	2.78E+08	25
Hexane, N-	1.02E+05	4.17E+01	--	7.00E+08	6.99E+08	25
Hexanone, 2-	4.38E+03	3.45E+04	--	6.25E+07	6.55E+07	25
Isopropanol	2.92E+04	2.65E+06	--	1.47E+08	3.31E+08	25
Methyl Ethyl Ketone (2-Butanone)	7.30E+05	9.41E+06	--	3.51E+08	5.19E+08	25
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	4.38E+05	2.33E+06	--	1.07E+08	1.07E+08	25
Naphthalene	1.20E+01	2.01E+01	--	5.86E+05	5.58E+05	25
Tetrachloroethylene	1.57E+03	6.52E+01	No (5)	1.65E+08	1.49E+08	25
Toluene	7.30E+05	8.07E+04	No (1000)	1.41E+08	1.43E+08	25
Trichloroethane, 1,1,1-	7.30E+05	3.11E+04	No (200)	8.90E+08	9.07E+08	25
Trichloroethylene	9.97E+01	7.43E+00	No (5)	4.88E+08	5.15E+08	25
Trichlorofluoromethane				5.93E+09	4.36E+09	25
Trimethylbenzene, 1,2,4-	8.76E+03	1.04E+03	--	1.36E+07	1.44E+07	25
Trimethylbenzene, 1,3,5-	8.76E+03	7.33E+02	--	1.60E+07	1.73E+07	25
Xylenes	1.46E+04	1.62E+03	Yes (10000)	4.56E+07	2.87E+07	25

**Commercial Vapor Intrusion Screening Levels (VISL)**
**Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level;**
**H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.**

Chemical	Lower Explosive Limit LEL (% by volume)	LEL Ref	IUR (ug/m <sup>3</sup> ) <sup>-1</sup>	IUR Ref	RfC (mg/m <sup>3</sup> )	RfC Ref	Mutagenic Indicator	Carcinogenic VISL TCR=1E-06 C <sub>ia,c</sub> (μg/m <sup>3</sup> )	Noncarcinogenic VISL THQ=1 C <sub>ia,nc</sub> (μg/m <sup>3</sup> )
Acetone	2.50	U			3.09E+01	U	No		1.35E+05
Benzene	1.20	U	7.80E-06	U	3.00E-02	U	No	1.57E+00	1.31E+02
Carbon Disulfide	1.30	U			7.00E-01	U	No		3.07E+03
Chloromethane	8.10	U			9.00E-02	U	No		3.94E+02
Cyclohexane	1.30	U			6.00E+00	U	No		2.63E+04
Dichlorodifluoromethane					1.00E-01	U	No		4.38E+02
Ethylbenzene	0.80	U	2.50E-06	U	1.00E+00	U	No	4.91E+00	4.38E+03
Heptane, N-	1.05	U			4.00E-01	U	No		1.75E+03
Hexane, N-	1.10	U			7.00E-01	U	No		3.07E+03
Hexanone, 2-	1.00	U			3.00E-02	U	No		1.31E+02
Isopropanol	2.00	U			2.00E-01	U	No		8.76E+02
Methyl Ethyl Ketone (2-Butanone)	1.40	U			5.00E+00	U	No		2.19E+04
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	1.20	U			3.00E+00	U	No		1.31E+04
Naphthalene	0.90	U	3.40E-05	U	3.00E-03	U	No	3.61E-01	1.31E+01
Tetrachloroethylene			2.60E-07	U	4.00E-02	U	No	4.72E+01	1.75E+02
Toluene	1.10	U			5.00E+00	U	No		2.19E+04
Trichloroethane, 1,1,1-	8.00	U			5.00E+00	U	No		2.19E+04
Trichloroethylene	8.00	U	4.10E-06	U	2.00E-03	U	Mut	2.99E+00	8.76E+00
Trichlorofluoromethane							No		
Trimethylbenzene, 1,2,4-	0.90	U			6.00E-02	U	No		2.63E+02
Trimethylbenzene, 1,3,5-	1.00	U			6.00E-02	U	No		2.63E+02
Xylenes					1.00E-01	U	No		4.38E+02

## Chemical Properties

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Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	MW	MW Ref	Vapor Pressure VP (mm Hg)	VP Ref	S (mg/L)	S Ref	MCL (ug/L)	HLC (atm-m <sup>3</sup> /mole)
Acetone	67-64-1	Yes	Yes	58.08	U	2.32E+02	U	1.00E+06	U		3.50E-05
Benzene	71-43-2	Yes	Yes	78.12	U	9.48E+01	U	1.79E+03	U	5	5.55E-03
Carbon Disulfide	75-15-0	Yes	Yes	76.14	U	3.59E+02	U	2.16E+03	U		1.44E-02
Chloromethane	74-87-3	Yes	Yes	50.49	U	4.30E+03	U	5.32E+03	U		8.82E-03
Cyclohexane	110-82-7	Yes	Yes	84.16	U	9.69E+01	U	5.50E+01	U		1.50E-01
Dichlorodifluoromethane	75-71-8	Yes	Yes	120.91	U	4.85E+03	U	2.80E+02	U		3.43E-01
Ethylbenzene	100-41-4	Yes	Yes	106.17	U	9.60E+00	U	1.69E+02	U	700	7.88E-03
Heptane, N-	142-82-5	Yes	Yes	100.21	U	4.60E+01	U	3.40E+00	U		2.00E+00
Hexane, N-	110-54-3	Yes	Yes	86.18	U	1.51E+02	U	9.50E+00	U		1.80E+00
Hexanone, 2-	591-78-6	Yes	Yes	100.16	U	1.16E+01	U	1.72E+04	U		9.32E-05
Isopropanol	67-63-0	Yes	Yes	60.10	U	4.54E+01	U	1.00E+06	U		8.10E-06
Methyl Ethyl Ketone (2-Butanone)	78-93-3	Yes	Yes	72.11	U	9.06E+01	U	2.23E+05	U		5.69E-05
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	Yes	Yes	100.16	U	1.99E+01	U	1.90E+04	U		1.38E-04
Naphthalene	91-20-3	Yes	Yes	128.18	U	8.50E-02	U	3.10E+01	U		4.40E-04
Tetrachloroethylene	127-18-4	Yes	Yes	165.83	U	1.85E+01	U	2.06E+02	U	5	1.77E-02
Toluene	108-88-3	Yes	Yes	92.14	U	2.84E+01	U	5.26E+02	U	1000	6.64E-03
Trichloroethane, 1,1,1-	71-55-6	Yes	Yes	133.41	U	1.24E+02	U	1.29E+03	U	200	1.72E-02
Trichloroethylene	79-01-6	Yes	Yes	131.39	U	6.90E+01	U	1.28E+03	U	5	9.85E-03
Trichlorofluoromethane	75-69-4	Yes	No	137.37	U	8.03E+02	U	1.10E+03	U		9.70E-02
Trimethylbenzene, 1,2,4-	95-63-6	Yes	Yes	120.20	U	2.10E+00	U	5.70E+01	U		6.16E-03
Trimethylbenzene, 1,3,5-	108-67-8	Yes	Yes	120.20	U	2.48E+00	U	4.82E+01	U		8.77E-03
Xylenes	1330-20-7	Yes	Yes	106.17	U	7.99E+00	U	1.06E+02	U	10000	6.63E-03

## Chemical Properties

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Chemical	Henry's Law Constant (unitless)	H` and HLC Ref	Henry's Law Constant Used in Calcs (unitless)	Normal Boiling Point BP (K)	BP Ref	Critical Temperature TC (K)	TC Ref	Enthalpy of vaporization at the normal boiling point	$\Delta H_{v,b}$ (cal/mol)	$\Delta H_{v,b}$ Ref	Lower Explosive Limit LEL (% by volume)	LEL Ref
Acetone	1.43E-03	U	1.43E-03	329.15	U	5.08E+02	U	6960.00	U		2.50	U
Benzene	2.27E-01	U	2.27E-01	353.15	U	5.62E+02	U	7340.00	U		1.20	U
Carbon Disulfide	5.89E-01	U	5.89E-01	319.15	U	5.52E+02	U	6390.00	U		1.30	U
Chloromethane	3.61E-01	U	3.61E-01	249.15	U	4.16E+02	U	5110.00	U		8.10	U
Cyclohexane	6.13E+00	U	6.13E+00	353.85	U	5.53E+02	U	7160.00	U		1.30	U
Dichlorodifluoromethane	1.40E+01	U	1.40E+01	243.35	U	3.85E+02	U	4800.00	U			
Ethylbenzene	3.22E-01	U	3.22E-01	409.15	U	6.17E+02	U	8500.00	U		0.80	U
Heptane, N-	8.18E+01	U	8.18E+01	371.65	U	5.40E+02	U	7590.00	U		1.05	U
Hexane, N-	7.36E+01	U	7.36E+01	341.85	U	5.08E+02	U	6900.00	U		1.10	U
Hexanone, 2-	3.81E-03	U	3.81E-03	401.15	U	5.87E+02	U	8690.00	U		1.00	U
Isopropanol	3.31E-04	U	3.31E-04	355.45	U	5.08E+02	U	10800.00	U		2.00	U
Methyl Ethyl Ketone (2-Butanone)	2.33E-03	U	2.33E-03	352.65	U	5.37E+02	U	7480.00	U		1.40	U
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	5.64E-03	U	5.64E-03	389.15	U	5.75E+02	U	8240.00	U		1.20	U
Naphthalene	1.80E-02	U	1.80E-02	491.15	U	7.48E+02	U	10400.00	U		0.90	U
Tetrachloroethylene	7.24E-01	U	7.24E-01	394.15	U	6.20E+02	U	8290.00	U			
Toluene	2.71E-01	U	2.71E-01	384.15	U	5.92E+02	U	7930.00	U		1.10	U
Trichloroethane, 1,1,1-	7.03E-01	U	7.03E-01	347.15	U	5.45E+02	U	7140.00	U		8.00	U
Trichloroethylene	4.03E-01	U	4.03E-01	360.35	U	5.71E+02	U	7500.00	U		8.00	U
Trichlorofluoromethane	3.97E+00	U	3.97E+00	296.85	U	4.71E+02	U	6000.00	U			
Trimethylbenzene, 1,2,4-	2.52E-01	U	2.52E-01	442.15	U	6.49E+02	U	9370.00	U		0.90	U
Trimethylbenzene, 1,3,5-	3.59E-01	U	3.59E-01	438.15	U	6.37E+02	U	9320.00	U		1.00	U
Xylenes	2.71E-01	U	2.71E-01	411.15	U	6.20E+02	U	8520.00	U			

# Site-specific VISL Results

## Resident Equation Inputs

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\* Inputted values different from Resident defaults are highlighted.

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Variable	Resident Air Default Value	Form-input Value
AF <sub>gw</sub> (Attenuation Factor Groundwater) unitless	0.001	0.001
AF <sub>ss</sub> (Attenuation Factor Sub-Slab) unitless	0.03	0.03
ED <sub>res</sub> (exposure duration) years	26	26
ED <sub>0-2</sub> (mutagenic exposure duration first phase) years	2	2
ED <sub>2-6</sub> (mutagenic exposure duration second phase) years	4	4
ED <sub>6-16</sub> (mutagenic exposure duration third phase) years	10	10
ED <sub>16-26</sub> (mutagenic exposure duration fourth phase) years	10	10
EF <sub>res</sub> (exposure frequency) days/year	350	350
EF <sub>0-2</sub> (mutagenic exposure frequency first phase) days/year	350	350
EF <sub>2-6</sub> (mutagenic exposure frequency second phase) days/year	350	350
EF <sub>6-16</sub> (mutagenic exposure frequency third phase) days/year	350	350
EF <sub>16-26</sub> (mutagenic exposure frequency fourth phase) days/year	350	350
ET <sub>res</sub> (exposure time) hours/day	24	24
ET <sub>0-2</sub> (mutagenic exposure time first phase) hours/day	24	24
ET <sub>2-6</sub> (mutagenic exposure time second phase) hours/day	24	24
ET <sub>6-16</sub> (mutagenic exposure time third phase) hours/day	24	24
ET <sub>16-26</sub> (mutagenic exposure time fourth phase) hours/day	24	24
THQ (target hazard quotient) unitless	0.1	1
LT (lifetime) years	70	70
TR (target risk) unitless	1.0E-06	1.0E-06

**Resident Vapor Intrusion Screening Levels (VISL)**
**Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level;**
**H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.**

Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Soil Source? ( $C_{vp} > C_{i,a}$ , Target?)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Groundwater Source? ( $C_{hc} > C_{i,a}$ , Target?)	Target Indoor Air Concentration (TCR=1E-06 or THQ=1) MIN( $C_{ia,c}, C_{ia,nc}$ ) ( $\mu\text{g}/\text{m}^3$ )	Toxicity Basis
Acetone	67-64-1	Yes	Yes	Yes	Yes	3.22E+04	NC
Benzene	71-43-2	Yes	Yes	Yes	Yes	3.60E-01	CA
Carbon Disulfide	75-15-0	Yes	Yes	Yes	Yes	7.30E+02	NC
Chloromethane	74-87-3	Yes	Yes	Yes	Yes	9.39E+01	NC
Cyclohexane	110-82-7	Yes	Yes	Yes	Yes	6.26E+03	NC
Dichlorodifluoromethane	75-71-8	Yes	Yes	Yes	Yes	1.04E+02	NC
Ethylbenzene	100-41-4	Yes	Yes	Yes	Yes	1.12E+00	CA
Heptane, N-	142-82-5	Yes	Yes	Yes	Yes	4.17E+02	NC
Hexane, N-	110-54-3	Yes	Yes	Yes	Yes	7.30E+02	NC
Hexanone, 2-	591-78-6	Yes	Yes	Yes	Yes	3.13E+01	NC
Isopropanol	67-63-0	Yes	Yes	Yes	Yes	2.09E+02	NC
Methyl Ethyl Ketone (2-Butanone)	78-93-3	Yes	Yes	Yes	Yes	5.21E+03	NC
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	Yes	Yes	Yes	Yes	3.13E+03	NC
Naphthalene	91-20-3	Yes	Yes	Yes	Yes	8.26E-02	CA
Tetrachloroethylene	127-18-4	Yes	Yes	Yes	Yes	1.08E+01	CA
Toluene	108-88-3	Yes	Yes	Yes	Yes	5.21E+03	NC
Trichloroethane, 1,1,1-	71-55-6	Yes	Yes	Yes	Yes	5.21E+03	NC
Trichloroethylene	79-01-6	Yes	Yes	Yes	Yes	4.78E-01	CA
Trichlorofluoromethane	75-69-4	Yes	No	No Inhal. Tox. Info	No Inhal. Tox. Info		
Trimethylbenzene, 1,2,4-	95-63-6	Yes	Yes	Yes	Yes	6.26E+01	NC
Trimethylbenzene, 1,3,5-	108-67-8	Yes	Yes	Yes	Yes	6.26E+01	NC
Xylenes	1330-20-7	Yes	Yes	Yes	Yes	1.04E+02	NC

**Resident Vapor Intrusion Screening Levels (VISL)**
**Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level;**
**H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.**

Chemical	Target Sub-Slab and Near-source Soil Gas Concentration (TCR=1E-06 or THQ=1) $C_{sg}$ ,Target ( $\mu\text{g}/\text{m}^3$ )	Target Groundwater Concentration (TCR=1E-06 or THQ=1) $C_{gw}$ ,Target ( $\mu\text{g}/\text{L}$ )	Is Target Groundwater Concentration < MCL? ( $C_{gw}$ < MCL?)	Pure Phase Vapor Concentration $C_{vp}$ (25 °C)\ ( $\mu\text{g}/\text{m}^3$ )	Maximum Groundwater Vapor Concentration $C_{hc}$ ( $\mu\text{g}/\text{m}^3$ )	Temperature for Maximum Groundwater Vapor Concentration (°C)
Acetone	1.07E+06	2.25E+07	--	7.25E+08	1.43E+09	25
Benzene	1.20E+01	1.59E+00	Yes (5)	3.98E+08	4.06E+08	25
Carbon Disulfide	2.43E+04	1.24E+03	--	1.47E+09	1.27E+09	25
Chloromethane	3.13E+03	2.60E+02	--	1.17E+10	1.92E+09	25
Cyclohexane	2.09E+05	1.02E+03	--	4.39E+08	3.37E+08	25
Dichlorodifluoromethane	3.48E+03	7.44E+00	--	3.15E+10	3.93E+09	25
Ethylbenzene	3.74E+01	3.49E+00	Yes (700)	5.48E+07	5.44E+07	25
Heptane, N-	1.39E+04	5.10E+00	--	2.48E+08	2.78E+08	25
Hexane, N-	2.43E+04	9.92E+00	--	7.00E+08	6.99E+08	25
Hexanone, 2-	1.04E+03	8.21E+03	--	6.25E+07	6.55E+07	25
Isopropanol	6.95E+03	6.30E+05	--	1.47E+08	3.31E+08	25
Methyl Ethyl Ketone (2-Butanone)	1.74E+05	2.24E+06	--	3.51E+08	5.19E+08	25
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	1.04E+05	5.55E+05	--	1.07E+08	1.07E+08	25
Naphthalene	2.75E+00	4.59E+00	--	5.86E+05	5.58E+05	25
Tetrachloroethylene	3.60E+02	1.49E+01	No (5)	1.65E+08	1.49E+08	25
Toluene	1.74E+05	1.92E+04	No (1000)	1.41E+08	1.43E+08	25
Trichloroethane, 1,1,1-	1.74E+05	7.42E+03	No (200)	8.90E+08	9.07E+08	25
Trichloroethylene	1.59E+01	1.19E+00	Yes (5)	4.88E+08	5.15E+08	25
Trichlorofluoromethane				5.93E+09	4.36E+09	25
Trimethylbenzene, 1,2,4-	2.09E+03	2.48E+02	--	1.36E+07	1.44E+07	25
Trimethylbenzene, 1,3,5-	2.09E+03	1.75E+02	--	1.60E+07	1.73E+07	25
Xylenes	3.48E+03	3.85E+02	Yes (10000)	4.56E+07	2.87E+07	25

**Resident Vapor Intrusion Screening Levels (VISL)**
**Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level;**
**H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.**

Chemical	Lower Explosive Limit LEL (% by volume)	LEL Ref	IUR (ug/m <sup>3</sup> ) <sup>-1</sup>	IUR Ref	RfC (mg/m <sup>3</sup> )	RfC Ref	Mutagenic Indicator	Carcinogenic VISL TCR=1E-06 C <sub>ia,c</sub> (μg/m <sup>3</sup> )	Noncarcinogenic VISL THQ=1 C <sub>ia,nc</sub> (μg/m <sup>3</sup> )
Acetone	2.50	U			3.09E+01	U	No		3.22E+04
Benzene	1.20	U	7.80E-06	U	3.00E-02	U	No	3.60E-01	3.13E+01
Carbon Disulfide	1.30	U			7.00E-01	U	No		7.30E+02
Chloromethane	8.10	U			9.00E-02	U	No		9.39E+01
Cyclohexane	1.30	U			6.00E+00	U	No		6.26E+03
Dichlorodifluoromethane					1.00E-01	U	No		1.04E+02
Ethylbenzene	0.80	U	2.50E-06	U	1.00E+00	U	No	1.12E+00	1.04E+03
Heptane, N-	1.05	U			4.00E-01	U	No		4.17E+02
Hexane, N-	1.10	U			7.00E-01	U	No		7.30E+02
Hexanone, 2-	1.00	U			3.00E-02	U	No		3.13E+01
Isopropanol	2.00	U			2.00E-01	U	No		2.09E+02
Methyl Ethyl Ketone (2-Butanone)	1.40	U			5.00E+00	U	No		5.21E+03
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	1.20	U			3.00E+00	U	No		3.13E+03
Naphthalene	0.90	U	3.40E-05	U	3.00E-03	U	No	8.26E-02	3.13E+00
Tetrachloroethylene			2.60E-07	U	4.00E-02	U	No	1.08E+01	4.17E+01
Toluene	1.10	U			5.00E+00	U	No		5.21E+03
Trichloroethane, 1,1,1-	8.00	U			5.00E+00	U	No		5.21E+03
Trichloroethylene	8.00	U	4.10E-06	U	2.00E-03	U	Mut	4.78E-01	2.09E+00
Trichlorofluoromethane							No		
Trimethylbenzene, 1,2,4-	0.90	U			6.00E-02	U	No		6.26E+01
Trimethylbenzene, 1,3,5-	1.00	U			6.00E-02	U	No		6.26E+01
Xylenes					1.00E-01	U	No		1.04E+02

## Chemical Properties

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Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	MW	MW Ref	Vapor Pressure VP (mm Hg)	VP Ref	S (mg/L)	S Ref	MCL (ug/L)	HLC (atm-m <sup>3</sup> /mole)
Acetone	67-64-1	Yes	Yes	58.08	U	2.32E+02	U	1.00E+06	U		3.50E-05
Benzene	71-43-2	Yes	Yes	78.12	U	9.48E+01	U	1.79E+03	U	5	5.55E-03
Carbon Disulfide	75-15-0	Yes	Yes	76.14	U	3.59E+02	U	2.16E+03	U		1.44E-02
Chloromethane	74-87-3	Yes	Yes	50.49	U	4.30E+03	U	5.32E+03	U		8.82E-03
Cyclohexane	110-82-7	Yes	Yes	84.16	U	9.69E+01	U	5.50E+01	U		1.50E-01
Dichlorodifluoromethane	75-71-8	Yes	Yes	120.91	U	4.85E+03	U	2.80E+02	U		3.43E-01
Ethylbenzene	100-41-4	Yes	Yes	106.17	U	9.60E+00	U	1.69E+02	U	700	7.88E-03
Heptane, N-	142-82-5	Yes	Yes	100.21	U	4.60E+01	U	3.40E+00	U		2.00E+00
Hexane, N-	110-54-3	Yes	Yes	86.18	U	1.51E+02	U	9.50E+00	U		1.80E+00
Hexanone, 2-	591-78-6	Yes	Yes	100.16	U	1.16E+01	U	1.72E+04	U		9.32E-05
Isopropanol	67-63-0	Yes	Yes	60.10	U	4.54E+01	U	1.00E+06	U		8.10E-06
Methyl Ethyl Ketone (2-Butanone)	78-93-3	Yes	Yes	72.11	U	9.06E+01	U	2.23E+05	U		5.69E-05
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	Yes	Yes	100.16	U	1.99E+01	U	1.90E+04	U		1.38E-04
Naphthalene	91-20-3	Yes	Yes	128.18	U	8.50E-02	U	3.10E+01	U		4.40E-04
Tetrachloroethylene	127-18-4	Yes	Yes	165.83	U	1.85E+01	U	2.06E+02	U	5	1.77E-02
Toluene	108-88-3	Yes	Yes	92.14	U	2.84E+01	U	5.26E+02	U	1000	6.64E-03
Trichloroethane, 1,1,1-	71-55-6	Yes	Yes	133.41	U	1.24E+02	U	1.29E+03	U	200	1.72E-02
Trichloroethylene	79-01-6	Yes	Yes	131.39	U	6.90E+01	U	1.28E+03	U	5	9.85E-03
Trichlorofluoromethane	75-69-4	Yes	No	137.37	U	8.03E+02	U	1.10E+03	U		9.70E-02
Trimethylbenzene, 1,2,4-	95-63-6	Yes	Yes	120.20	U	2.10E+00	U	5.70E+01	U		6.16E-03
Trimethylbenzene, 1,3,5-	108-67-8	Yes	Yes	120.20	U	2.48E+00	U	4.82E+01	U		8.77E-03
Xylenes	1330-20-7	Yes	Yes	106.17	U	7.99E+00	U	1.06E+02	U	10000	6.63E-03

## Chemical Properties

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Chemical	Henry's Law Constant (unitless)	H` and HLC Ref	Henry's Law Constant Used in Calcs (unitless)	Normal Boiling Point BP (K)	BP Ref	Critical Temperature TC (K)	TC Ref	Enthalpy of vaporization at the normal boiling point	$\Delta H_{v,b}$ (cal/mol)	$\Delta H_{v,b}$ Ref	Lower Explosive Limit LEL (% by volume)	LEL Ref
Acetone	1.43E-03	U	1.43E-03	329.15	U	5.08E+02	U	6960.00	U		2.50	U
Benzene	2.27E-01	U	2.27E-01	353.15	U	5.62E+02	U	7340.00	U		1.20	U
Carbon Disulfide	5.89E-01	U	5.89E-01	319.15	U	5.52E+02	U	6390.00	U		1.30	U
Chloromethane	3.61E-01	U	3.61E-01	249.15	U	4.16E+02	U	5110.00	U		8.10	U
Cyclohexane	6.13E+00	U	6.13E+00	353.85	U	5.53E+02	U	7160.00	U		1.30	U
Dichlorodifluoromethane	1.40E+01	U	1.40E+01	243.35	U	3.85E+02	U	4800.00	U			
Ethylbenzene	3.22E-01	U	3.22E-01	409.15	U	6.17E+02	U	8500.00	U		0.80	U
Heptane, N-	8.18E+01	U	8.18E+01	371.65	U	5.40E+02	U	7590.00	U		1.05	U
Hexane, N-	7.36E+01	U	7.36E+01	341.85	U	5.08E+02	U	6900.00	U		1.10	U
Hexanone, 2-	3.81E-03	U	3.81E-03	401.15	U	5.87E+02	U	8690.00	U		1.00	U
Isopropanol	3.31E-04	U	3.31E-04	355.45	U	5.08E+02	U	10800.00	U		2.00	U
Methyl Ethyl Ketone (2-Butanone)	2.33E-03	U	2.33E-03	352.65	U	5.37E+02	U	7480.00	U		1.40	U
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	5.64E-03	U	5.64E-03	389.15	U	5.75E+02	U	8240.00	U		1.20	U
Naphthalene	1.80E-02	U	1.80E-02	491.15	U	7.48E+02	U	10400.00	U		0.90	U
Tetrachloroethylene	7.24E-01	U	7.24E-01	394.15	U	6.20E+02	U	8290.00	U			
Toluene	2.71E-01	U	2.71E-01	384.15	U	5.92E+02	U	7930.00	U		1.10	U
Trichloroethane, 1,1,1-	7.03E-01	U	7.03E-01	347.15	U	5.45E+02	U	7140.00	U		8.00	U
Trichloroethylene	4.03E-01	U	4.03E-01	360.35	U	5.71E+02	U	7500.00	U		8.00	U
Trichlorofluoromethane	3.97E+00	U	3.97E+00	296.85	U	4.71E+02	U	6000.00	U			
Trimethylbenzene, 1,2,4-	2.52E-01	U	2.52E-01	442.15	U	6.49E+02	U	9370.00	U		0.90	U
Trimethylbenzene, 1,3,5-	3.59E-01	U	3.59E-01	438.15	U	6.37E+02	U	9320.00	U		1.00	U
Xylenes	2.71E-01	U	2.71E-01	411.15	U	6.20E+02	U	8520.00	U			