ARM Group LLC
Engineers and Scientists

March 7, 2020

Ms. Barbara Brown
Project Coordinator
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, MD 21230

Re: Soil Gas Investigation Report
Area A: Sub-Parcel A10-1
Tradepoint Atlantic
Sparrows Point, MD 21219

Dear Ms. Brown:

On February 28, 2020, ARM Group LLC (ARM), on behalf of EnviroAnalytics Group, LLC (EAG), completed a limited environmental investigation to further evaluate subsurface conditions and assess the potential for contaminant vapors to vertically migrate into the proposed logistics center on Sub-Parcel A10-1 (the Site) of the Tradepoint Atlantic property located in Sparrows Point, Maryland. The investigation was conducted in accordance with the Proposed A10 Soil Gas Investigation Work Plan (email correspondence) dated February 7, 2020.

Project Background

A Response and Development Work Plan (RADWP) was submitted to the Maryland Department of the Environment (MDE) and United States Environmental Protection Agency (USEPA) to facilitate the construction of the proposed logistics center on Sub-Parcel A10-1. The most recent version of the RADWP (Revision 0) was submitted on February 12, 2020, and a revised submission is anticipated during the week of March 9, 2020. As discussed in the RADWP, several volatile organic compounds (VOCs) have been identified in groundwater below the Site, and extensive investigation work has already been performed to define the nature and extent of these contaminants.

There is no direct exposure risk for future Composite Workers at the Site because there is no use of groundwater on the Tradepoint Atlantic property; however, a sub-slab vapor barrier is proposed for installation below the proposed logistics center as outlined in the RADWP to mitigate any potential vapor intrusion (VI) risk. The purpose of the soil gas samples discussed herein was to assess the potential for a VI condition to be present at the Site, and if present, to assess the potential risk to human health via the VI to indoor air risk pathway within the planned structure.

Groundwater conditions were initially investigated in 2016 in accordance with the Parcel A10 Phase II Investigation Work Plan. During this Phase II Investigation, groundwater samples were obtained from 11 temporary groundwater sample collection points (piezometers) that were in close proximity to Sub-Parcel A10-1, as well as one permanent well (SG06-PDM001) located slightly to the north. The groundwater sample results were compared against relevant VI screening criteria, and elevated VI risks/hazards primarily attributed to chlorinated VOCs (CVOCs), in particular tetrachloroethene (PCE) and trichloroethene (TCE), were identified at several locations.

A supplemental investigation was performed in late-2019 to further define the nature and extent of groundwater containing elevated concentrations of CVOCs throughout Parcel A10. Piezometers were installed as co-located pairs to investigate both the shallow groundwater aquifer as well as an overlying water-bearing perched zone. During the supplemental CVOC investigation, three shallow piezometers which had previously been identified during the Phase II Investigation with groundwater concentrations that exceeded VI criteria (A10-025(S)-PZ, A10-027(S)-PZ, and A10-034(S)-PZ) were confirmed, and two additional shallow piezometers (A10-035(S)-PZ and A10-039(S)-PZ) also exhibited VI criteria exceedances. The five shallow groundwater locations with exceedances of the VI criteria are all located along the eastern side of Parcel A10. PCE and TCE were confirmed as the most significant CVOCs in groundwater at the Site. The complete findings of the supplemental CVOC investigation were provided in the Supplemental Investigation Report for CVOC Impacted Groundwater dated January 6, 2020 and are summarized in the Sub-Parcel A10-1 RADWP.

Sampling Methods

Within the Work Plan (email) dated February 7, 2020, the soil gas samples were proposed to be co-located with five existing piezometers that were installed inside the proposed building footprint, and three additional piezometers that yielded the highest concentrations of PCE and TCE along the eastern property boundary in close proximity to the proposed building. By co-locating the soil gas samples with the existing piezometers, the concentrations of detected VOCs in the soil gas samples could be directly compared to the corresponding groundwater data. One of the soil gas samples (A10-015-SG) was shifted roughly 150 feet to the north due to active demolition occurring on the Site in the immediate vicinity of the proposed location. The final soil gas sample locations are shown on **Figure 1**, along with the historical PCE and TCE groundwater data.

On February 24, 2020, ARM and GSI Mid-Atlantic Inc. (GSI) mobilized to the Site to install the temporary soil gas monitoring probes. Prior to installing the monitoring probes, a water-level meter was used to gauge nearby piezometers to determine the depth to the perched water table. The monitoring probes were proposed to be installed to an approximate depth of 4 to 5 feet below ground surface (bgs), or 1-foot above the perched water table (whichever was shallower). The paired shallow piezometers (where available) were also gauged, and in all cases the perched water table was above the shallow water table. The gauging data collected on February 24, 2020 is provided in the table below:

A10 Piezometer	Depth to Water (ft bgs)	Soil Gas Implant Installation Depth (ft bgs)
A10-015(P)-PZ	destroyed	2
A10-015(S)-PZ	destroyed	
A10-024(P)-PZ	5.08	5
A10-024(S)-PZ	5.86	
A10-025(P)-PZ	3.73	2.5
A10-025(S)-PZ	9.26	
A10-034(P)-PZ	8.07	5
A10-034(S)-PZ	11.1	
A10-035(P)-PZ	3.24	2.25
A10-035(S)-PZ	10.16	
A10-038(P)-PZ	5.51	4.5
A10-038(S)-PZ	6.27	
A10-039(P)-PZ	6.44	5
A10-039(S)-PZ	8.84	
A10-040(P)-PZ	destroyed	2
A10-040(S)-PZ	12.96	

Following collection of the groundwater measurements, a Geoprobe® direct push unit was utilized to push appropriate drive rods to the prescribed sampling depth. A 6-inch soil gas implant, constructed of double woven stainless-steel wire screen, was then attached to an appropriate length of polyethylene tubing and lowered to the bottom of the borehole. Once the implant and tubing were installed, the tubing was capped, and clean sand was added around the implant to create a permeable layer that extended at least 6 inches above the implant. Granular bentonite was then added and hydrated to create a seal above the sand pack that extended to the ground surface.

On February 25, 2019, approximately 24 hours after the installation of the monitoring probes, leak tests were performed to ensure that valid soil gas samples would be collected, and to provide quantitative proof of the integrity of the surface seal. The testing involved the introduction of a gaseous tracer compound (helium) into shroud which covered the ground surface surrounding the sampling point, and then monitoring for the presence of helium in the gas withdrawn from the subsurface using a hand-held meter. While the shroud was inflated, soil gas was purged from the monitoring point using a three-way valve and a syringe. Using the same valve and syringe, a Tedlar bag was then filled with soil gas that was withdrawn from the monitoring point. The gas inside of the Tedlar bag was then screened in the field with the meter. At several locations, gas recovery was limited, likely due to the relatively high clay content in the soil. Only one location (A10-034-SG) did not produce enough soil gas for standard leak testing to be performed.

As stated in Field Standard Operating Procedure (SOP) Number 002, if less than 10% of the starting concentration of the tracer gas within the shroud was observed in the Tedlar bag sample, the seal could be considered competent and sampling would continue. During fieldwork, the concentration of helium measured in the Tedlar bag was always less than 10%, and each seal was deemed adequate to proceed.

During the leak testing, one of the proposed sample locations (A10-015-SG) accumulated water when a syringe was used to purge the implant. This sample location had been shifted roughly 150 feet to the north of the originally proposed location. The soil gas implant had been installed at a depth of 2 feet bgs, and re-installation at a shallower depth above water was not feasible. Therefore, this location was removed from the sampling plan.

Sampling of the other seven temporary soil gas monitoring points was completed on February 28, 2020. Prior to sampling, a syringe was attached to the three-way valve and three purge volumes of air were removed. After the probe and tubing had been purged, an evacuated 1-liter stainless-steel Summa Canister with a flow restrictor set for a 60-minute intake time was attached to the tubing, and the initial vacuum in the canister was recorded. The soil gas sample was then collected over a period of 60 minutes. At the completion of the sampling period, the valve of the canister was closed, the final vacuum of the canister was recorded, and an identification tag was attached to the canister.

Quality assurance and quality control (QA/QC) samples were collected during field studies to evaluate field/laboratory variability. A blind field duplicate and an equipment blank consisting of "clean" air provided by the laboratory were collected in the field and submitted for analysis. The seven soil gas samples and associated QA/QC samples were submitted to Pace Analytical Services, Inc. (PACE), via courier and under a completed Chain of Custody, to be analyzed for VOCs via USEPA Method TO-15.

Results and Conclusions

The final results were received from PACE on March 5, 2020. The laboratory's Certificate of Analysis is included as **Attachment 1**. Results were compared against the soil gas Project Action Limit (PALs) established in the property-wide Quality Assurance Project Plan (QAPP) dated April 5, 2016 that was developed to govern the environmental investigation work performed across the Tradepoint Atlantic property. The PALs are generally based on the Maryland Department of the Environment (MDE) Commercial Tier 1 Target Soil Gas Screening Levels. Since the soil gas samples in this investigation were collected from the subsurface at depths between 2 and 5 feet bgs, and were closer to the groundwater source, the PALs based on sub-slab soil gas are believed to be conservative with respect to potential VI risks at the Site.

The detected VOC parameters among the soil gas samples are summarized and compared to the PALs in **Table 1**. The table also displays the MDE's updated Commercial Tier 1 Target Soil Gas

Screening Levels which were published in May 2019. The summary table includes all parameters with at least one detection in any soil gas sample, and the complete analytical results can be viewed in the provided laboratory report (**Attachment 1**). PCE was detected in only one soil gas sample (A10-034-SG), and at a negligible concentration of 1.6 ug/m^3 in comparison to the PAL of 18,000 ug/m^3. TCE was not detected in any soil gas samples.

While there were several VOCs detected at low concentrations in the samples, none of the detected concentrations exceeded the applicable PALs (or the updated May 2019 criteria) in any of the samples submitted for analysis. Further, the screening levels specified for sub-slab soil gas are believed to be conservative. There does not appear to be a significant risk to future workers via the VI to indoor air risk pathway, and the future structure should be suitable for occupancy.

The proposed vapor barrier detailed within the RADWP appears to be adequate to mitigate any residual potential VI risk to future occupants. As an additional protective measure, one round of pre-occupancy sub-slab soil gas sampling will be performed using permanent monitoring probes installed through the floor slab of the proposed building. The installation and sampling procedures for the permanent monitoring probes will be consistent with those used for the recent Sub-Parcel A11-1 sub-slab soil gas monitoring program. Specific sample locations and installation procedures will be proposed in the revised RADWP. If the results of the initial round of sub-slab soil gas sampling are below the PALs, then the building will be occupied and a subsequent post-occupancy round of indoor air and sub-slab soil gas sampling will be performed between December 2020 and March 2021. If the pre-occupancy sub-slab soil gas results indicate the presence of a potentially unacceptable VI risk (i.e., exceedances of the PALs), then the subsequent round of indoor air and sub-slab soil gas sampling will be performed prior to occupancy, and any additional monitoring and/or response measures will be coordinated with the MDE and USEPA as needed.

If you have questions regarding any information covered in this document, please feel free to contact ARM Group LLC at (410) 290-7775.

Respectfully submitted,
ARM Group LLC

Taylor R. Smith, P.E.
Project Engineer

Eric S. Magdar, P.G.
Vice President

FIGURES

Soil Gas Location
Shallow Piezometer
Perched Piezometer
Shallow Permanent Well
Proposed Building
Proposed Office
Historical Building Footprint
Parcel Boundaries

Label Key

CVOC Delineation Data
Phase II Data
Soil Gas Investigation
ND = Non-Detect
NS = Not Sampled

Parcel A18
Parcel A16
Parcel A10
Parcel B7

A10-027(S)-PZ
PCE: 44.8
TCE: 218

A10-027(S)-PZ
PCE: 123
TCE: 255

A10-036(P)-PZ
PCE: ND
TCE: ND

A10-036(S)-PZ
PCE: 1.5
TCE: 4.4

A10-035(S)-PZ
PCE: 285
TCE: 1,670

A10-035-SG

SG06-PDM001
PCE: ND
TCE: ND

A10-025(S)-PZ
PCE: 284
TCE: 256

A10-025-SG

A10-025(S)-PZ
PCE: 1,010
TCE: 494

A10-024(S)-PZ
PCE: ND
TCE: ND

A10-024(S)-PZ
PCE: ND
TCE: ND

A10-024-SG

A10-037(P)-PZ
PCE: ND
TCE: ND

A10-037(S)-PZ
PCE: ND
TCE: 1.3

A10-018-PZ
PCE: 1.7
TCE: 3.5

A10-038(S)-PZ
PCE: ND
TCE: ND

A10-038(P)-PZ
PCE: ND
TCE: ND

A10-038-SG

A10-039(P)-PZ
PCE: ND
TCE: ND

A10-039-SG

A10-039(S)-PZ
PCE: 232
TCE: 663

A10-020-PZ
PCE: 3.9
TCE: 3.3

A10-034(S)-PZ
PCE: 34.2
TCE: 33.5

A10-021-PZ
PCE: ND
TCE: ND

A10-034-SG

A10-034(S)-PZ
PCE: 160
TCE: 134

A10-015-SG
NS

A10-002(P)-PZ
PCE: ND
TCE: ND

A10-002(P)-PZ
PCE: ND
TCE: ND

A10-002(S)-PZ
PCE: 11.9
TCE: 2.7

A10-010-PZ
PCE: 14.2
TCE: 7.6

A10-015(S)-PZ
PCE: 8
TCE: 5.3

A10-015(P)-PZ
PCE: ND
TCE: ND

A10-015(P)-PZ
PCE: ND
TCE: ND

A10-040(P)-PZ
PCE: ND
TCE: ND

A10-040(S)-PZ
PCE: ND
TCE: ND

A10-040-SG

A10-041(P)-PZ
PCE: ND
TCE: ND

A10-041(S)-PZ
PCE: ND
TCE: ND

A10-029(S)-PZ
PCE: ND
TCE: ND

A10-029(P)-PZ
PCE: ND
TCE: ND

A10-029(P)-PZ
PCE: 4.6
TCE: 5

0 100 200 400 Feet

ARM Group LLC
Engineers and Scientists

Parcel A10 Soil Gas Sampling Locations & Historical Perched/Shallow Groundwater Sample PCE & TCE Concentrations (ug/L)

March 6, 2020

EnviroAnalytics Group
ARM Project 20010110

Tradepoint Atlantic
Baltimore County, MD

Figure
1

TABLES

Table 1 - Sub-Parcel A10-1
Summary of VOCs Detected in Soil Gas

Parameter	Units	PAL	May 2019 MDE SL	A10-024-SG 2/28/2020	A10-025-SG 2/28/2020	A10-034-SG 2/28/2020	A10-035-SG 2/28/2020	A10-038-SG 2/28/2020	A10-039-SG 2/28/2020	A10-040-SG 2/28/2020
Volatile Organic Compounds										
1,2,4-Trimethylbenzene	µg/m^3	3,100	26,400	**0.94 J**	1.9 U	1.8 U	1.9 U	1.9 U	1.9 U	12.8 U
1,3,5-Trimethylbenzene	µg/m^3	2,200	26,400	1.7 U	**1.3 J**	1.8 U	1.9 U	1.9 U	1.9 U	12.8 U
1,3-Dichlorobenzene	µg/m^3			2.1 U	2.4 U	**1.2 J**	2.3 U	2.3 U	2.3 U	15.6 U
2-Butanone (MEK)	µg/m^3	2,200,000	2,200,000	**1 J**	5.8 U	**3.2 J**	**3.4 J**	**3 J**	**2.1 J**	38.4 U
Acetone	µg/m^3	14,000,000	13,700,000	**37.7**	**18.5**	**98.8**	**42**	**72.3**	**23.3**	**168**
Benzene	µg/m^3	1,600	1,600	**2**	**0.99**	**2.5**	**1.2**	**6.4**	**1.2**	**4.8**
Carbon disulfide	µg/m^3	310,000	310,000	**0.91 J**	1.2 U	**12.6**	1.2 U	**9.4**	1.2 U	8.1 U
Chloromethane	µg/m^3	40,000	40,000	**0.56 J**	**0.89**	**0.62 J**	**1.1**	0.8 U	**1.2**	5.4 U
Cyclohexane	µg/m^3	2,700,000	2,650,000	**17.1**	3.4 U	3.1 U	**0.9 J**	**8.5**	**1 J**	22.4 U
Dichlorodifluoromethane	µg/m^3	44,000	44,000	1.8 U	**2.4**	**2.5**	**2.4**	**2.3**	**2.3**	12.9 U
Ethylbenzene	µg/m^3	5,000	5,000	**0.83 J**	1.7 U	**0.68 J**	1.7 U	1.7 U	1.7 U	11.3 U
m&p-Xylene	µg/m^3	44,000	44,000	**2.8 J**	3.4 U	**2.4 J**	3.3 U	3.4 U	3.3 U	22.7 U
Naphthalene	µg/m^3	370	361	4.6 U	5.2 U	**5.5**	5 U	5.1 U	5 U	34 U
o-Xylene	µg/m^3	44,000	44,000	**1 J**	1.7 U	**0.84 J**	1.7 U	1.7 U	1.7 U	11.3 U
Tetrachloroethene	µg/m^3	18,000	18,000	1.2 U	1.3 U	**1.6**	1.3 U	1.3 U	1.3 U	8.8 U
Toluene	µg/m^3	2,200,000	2,200,000	**5**	**1.2 J**	**6.1**	**3.3**	**3.8**	**1.7**	**4.7 J**
Trichlorofluoromethane	µg/m^3	310,000	310,000	2 U	**1.3 J**	**1.3 J**	**1.3 J**	**0.93 J**	**1.4 J**	14.6 U

Detections in bold
Values in red indicate an exceedance of the Project Action Limit (PAL)
MDE SL = MD Dept. of the Environment Tier 1 Commercial Screening Level (updated May 2019)
All results are non-validated
U: This analyte was not detected in the sample. The numeric value repesents the sample quantitation/detection limit.
J: The positive result reported for this analyte is a quantitative estimate.

ATTACHMENT 1

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

March 05, 2020

Mr. James Calenda
EnviroAnalytics Group, LLC
1600 Sparrows Point Blvd
Suite B2
Sparrows Point, MD 21219

RE: Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Dear Mr. Calenda:
Enclosed are the analytical results for sample(s) received by the laboratory on March 03, 2020. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This project follows the April 5, 2016 revision 3 Quality Assurance Project Plan for Sparrows Point Terminal Site, Sparrows Point, MD prepared for EnviroAnalytics Group and is not for PA DEP compliance reporting.

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

Sincerely,

Megan Smetanka

Megan J. Smetanka for
Samantha Bayura
samantha.bayura@pacelabs.com
(724)850-5622
Project Manager

Enclosures

cc: Ms. Penny Gardner, Environmental Data Quality, Inc.
Ms. Shawne M. Rodgers, Environmental Data Quality, Inc.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Pace Analytical Services Minneapolis

A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
CNMI Saipan Certification #: MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Guam EPA Certification #: MN00064
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: 03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Massachusetts Certification #: M-MN064
Massachusetts DWP Certification #: via MN 027-053-137
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Certifcation #: via MN 027-053-137
Minnesota Petrofund Certification #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30352629001	**A10-040**	Air	02/28/20 11:20	03/03/20 09:45
30352629002	**Equipment Blank**	Air	02/28/20 11:20	03/03/20 09:45
30352629003	**A10-034**	Air	02/28/20 11:18	03/03/20 09:45
30352629004	**A10-024**	Air	02/28/20 10:14	03/03/20 09:45
30352629005	**A10-Duplicate**	Air	02/28/20 10:14	03/03/20 09:45
30352629006	**A10-039**	Air	02/28/20 11:11	03/03/20 09:45
30352629007	**A10-025**	Air	02/28/20 11:08	03/03/20 09:45
30352629008	**A10-035**	Air	02/28/20 11:06	03/03/20 09:45
30352629009	**A10-038**	Air	02/28/20 11:00	03/03/20 09:45
30352629010	**Trip Blank**	Air	02/28/20 00:01	03/03/20 09:45

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30352629001	**A10-040**	TO-15	MLS	53	PASI-M
30352629002	**Equipment Blank**	TO-15	MLS	53	PASI-M
30352629003	**A10-034**	TO-15	MLS	53	PASI-M
30352629004	**A10-024**	TO-15	MLS	53	PASI-M
30352629005	**A10-Duplicate**	TO-15	MLS	53	PASI-M
30352629006	**A10-039**	TO-15	MLS	53	PASI-M
30352629007	**A10-025**	TO-15	MLS	53	PASI-M
30352629008	**A10-035**	TO-15	MLS	53	PASI-M
30352629009	**A10-038**	TO-15	MG2	53	PASI-M
30352629010	**Trip Blank**	TO-15	MG2	53	PASI-M

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Date: March 05, 2020

A10-040 (Lab ID: 30352629001)

- 1,2-Dibromo-3-chloropropane was not detected in this mass spectral analysis.
- 1,2,3-Trichlorobenzene was not detected in this mass spectral analysis.

Equipment Blank (Lab ID: 30352629002)

- 1,2-Dibromo-3-chloropropane was not detected in this mass spectral analysis.
- 1,2,3-Trichlorobenzene was not detected in this mass spectral analysis.

A10-034 (Lab ID: 30352629003)

- 1,2-Dibromo-3-chloropropane was not detected in this mass spectral analysis.
- 1,2,3-Trichlorobenzene was not detected in this mass spectral analysis.

A10-024 (Lab ID: 30352629004)

- 1,2-Dibromo-3-chloropropane was not detected in this mass spectral analysis.
- 1,2,3-Trichlorobenzene was not detected in this mass spectral analysis.

A10-Duplicate (Lab ID: 30352629005)

- 1,2-Dibromo-3-chloropropane was not detected in this mass spectral analysis.
- 1,2,3-Trichlorobenzene was not detected in this mass spectral analysis.

A10-039 (Lab ID: 30352629006)

- 1,2-Dibromo-3-chloropropane was not detected in this mass spectral analysis.
- 1,2,3-Trichlorobenzene was not detected in this mass spectral analysis.

A10-025 (Lab ID: 30352629007)

- 1,2-Dibromo-3-chloropropane was not detected in this mass spectral analysis.
- 1,2,3-Trichlorobenzene was not detected in this mass spectral analysis.

A10-035 (Lab ID: 30352629008)

- 1,2-Dibromo-3-chloropropane was not detected in this mass spectral analysis.
- 1,2,3-Trichlorobenzene was not detected in this mass spectral analysis.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Method: **TO-15**
Description: TO15 MSV AIR
Client: EnviroAnalytics Group, LLC
Date: March 05, 2020

General Information:
10 samples were analyzed for TO-15. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

QC Batch: 663227

SS: This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value.

- LCS (Lab ID: 3558065)
  - 1,2,4-Trichlorobenzene

QC Batch: 663264

SS: This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value.

- LCS (Lab ID: 3558204)
  - 1,2,4-Trichlorobenzene

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 663227

CH: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.

- LCS (Lab ID: 3558065)
  - Bromoform
  - trans-1,3-Dichloropropene

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 663227

L1: Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

- LCS (Lab ID: 3558065)
  - Bromoform

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PROJECT NARRATIVE

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Method: **TO-15**
Description: TO15 MSV AIR
Client: EnviroAnalytics Group, LLC
Date: March 05, 2020

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 663227

N2: The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

- A10-024 (Lab ID: 30352629004)
  - 1,2-Dichloroethene (Total)
- A10-025 (Lab ID: 30352629007)
  - 1,2-Dichloroethene (Total)
- A10-034 (Lab ID: 30352629003)
  - 1,2-Dichloroethene (Total)
- A10-035 (Lab ID: 30352629008)
  - 1,2-Dichloroethene (Total)
- A10-039 (Lab ID: 30352629006)
  - 1,2-Dichloroethene (Total)
- A10-040 (Lab ID: 30352629001)
  - 1,2-Dichloroethene (Total)
- A10-Duplicate (Lab ID: 30352629005)
  - 1,2-Dichloroethene (Total)
- BLANK (Lab ID: 3558064)
  - 1,2-Dichloroethene (Total)
- DUP (Lab ID: 3559071)
  - 1,2-Dichloroethene (Total)
- DUP (Lab ID: 3559072)
  - 1,2-Dichloroethene (Total)
- Equipment Blank (Lab ID: 30352629002)
  - 1,2-Dichloroethene (Total)
- LCS (Lab ID: 3558065)
  - 1,2-Dichloroethene (Total)

QC Batch: 663264

N2: The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

- A10-038 (Lab ID: 30352629009)
  - 1,2-Dichloroethene (Total)
- BLANK (Lab ID: 3558203)
  - 1,2-Dichloroethene (Total)
- LCS (Lab ID: 3558204)
  - 1,2-Dichloroethene (Total)
- Trip Blank (Lab ID: 30352629010)
  - 1,2-Dichloroethene (Total)

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PROJECT NARRATIVE

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Method: **TO-15**
Description: TO15 MSV AIR
Client: EnviroAnalytics Group, LLC
Date: March 05, 2020

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Sample: A10-040 **Lab ID: 30352629001** Collected: 02/28/20 11:20 Received: 03/03/20 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
1,1,1-Trichloroethane	**14.2 U**	ug/m3	14.2	4.0	12.8		03/04/20 20:03	71-55-6	
1,1,2,2-Tetrachloroethane	**8.9 U**	ug/m3	8.9	4.0	12.8		03/04/20 20:03	79-34-5	
1,1,2-Trichloroethane	**7.1 U**	ug/m3	7.1	3.1	12.8		03/04/20 20:03	79-00-5	
1,1,2-Trichlorotrifluoroethane	**20.0 U**	ug/m3	20.0	7.2	12.8		03/04/20 20:03	76-13-1	
1,1-Dichloroethane	**10.5 U**	ug/m3	10.5	2.9	12.8		03/04/20 20:03	75-34-3	
1,1-Dichloroethene	**10.3 U**	ug/m3	10.3	3.5	12.8		03/04/20 20:03	75-35-4	
1,2,3-Trimethylbenzene	**12.8 U**	ug/m3	12.8	5.2	12.8		03/04/20 20:03	526-73-8	
1,2,4-Trichlorobenzene	**96.5 U**	ug/m3	96.5	47.6	12.8		03/04/20 20:03	120-82-1	
1,2,4-Trimethylbenzene	**12.8 U**	ug/m3	12.8	5.8	12.8		03/04/20 20:03	95-63-6	
1,2-Dibromoethane (EDB)	**10 U**	ug/m3	10	4.7	12.8		03/04/20 20:03	106-93-4	
1,2-Dichlorobenzene	**15.6 U**	ug/m3	15.6	6.4	12.8		03/04/20 20:03	95-50-1	
1,2-Dichloroethane	**5.3 U**	ug/m3	5.3	1.9	12.8		03/04/20 20:03	107-06-2	
1,2-Dichloroethene (Total)	**20.6 U**	ug/m3	20.6	3.6	12.8		03/04/20 20:03	540-59-0	N2
1,2-Dichloropropane	**12.0 U**	ug/m3	12.0	2.9	12.8		03/04/20 20:03	78-87-5	
1,3,5-Trimethylbenzene	**12.8 U**	ug/m3	12.8	5.1	12.8		03/04/20 20:03	108-67-8	
1,3-Dichlorobenzene	**15.6 U**	ug/m3	15.6	7.4	12.8		03/04/20 20:03	541-73-1	
1,4-Dichlorobenzene	**39.2 U**	ug/m3	39.2	12.8	12.8		03/04/20 20:03	106-46-7	
1,4-Dioxane (p-Dioxane)	**46.8 U**	ug/m3	46.8	9.6	12.8		03/04/20 20:03	123-91-1	
2-Butanone (MEK)	**38.4 U**	ug/m3	38.4	4.7	12.8		03/04/20 20:03	78-93-3	
2-Hexanone	**53.2 U**	ug/m3	53.2	9.5	12.8		03/04/20 20:03	591-78-6	
4-Methyl-2-pentanone (MIBK)	**53.2 U**	ug/m3	53.2	6.6	12.8		03/04/20 20:03	108-10-1	
Acetone	**168**	ug/m3	30.8	15.5	12.8		03/04/20 20:03	67-64-1	
Benzene	**4.8**	ug/m3	4.2	2.0	12.8		03/04/20 20:03	71-43-2	
Bromodichloromethane	**17.4 U**	ug/m3	17.4	4.7	12.8		03/04/20 20:03	75-27-4	
Bromoform	**67.2 U**	ug/m3	67.2	18.2	12.8		03/04/20 20:03	75-25-2	
Bromomethane	**10.1 U**	ug/m3	10.1	2.9	12.8		03/04/20 20:03	74-83-9	
Carbon disulfide	**8.1 U**	ug/m3	8.1	2.8	12.8		03/04/20 20:03	75-15-0	
Carbon tetrachloride	**16.4 U**	ug/m3	16.4	5.5	12.8		03/04/20 20:03	56-23-5	
Chlorobenzene	**12.0 U**	ug/m3	12.0	3.5	12.8		03/04/20 20:03	108-90-7	
Chloroethane	**6.9 U**	ug/m3	6.9	3.3	12.8		03/04/20 20:03	75-00-3	
Chloroform	**6.3 U**	ug/m3	6.3	2.5	12.8		03/04/20 20:03	67-66-3	
Chloromethane	**5.4 U**	ug/m3	5.4	2.0	12.8		03/04/20 20:03	74-87-3	
Cyclohexane	**22.4 U**	ug/m3	22.4	4.5	12.8		03/04/20 20:03	110-82-7	
Dibromochloromethane	**22.1 U**	ug/m3	22.1	9.2	12.8		03/04/20 20:03	124-48-1	
Dichlorodifluoromethane	**12.9 U**	ug/m3	12.9	3.8	12.8		03/04/20 20:03	75-71-8	
Ethylbenzene	**11.3 U**	ug/m3	11.3	3.9	12.8		03/04/20 20:03	100-41-4	
Hexachloro-1,3-butadiene	**69.4 U**	ug/m3	69.4	25.2	12.8		03/04/20 20:03	87-68-3	
Isopropylbenzene (Cumene)	**32.0 U**	ug/m3	32.0	4.9	12.8		03/04/20 20:03	98-82-8	
Methyl-tert-butyl ether	**46.8 U**	ug/m3	46.8	8.5	12.8		03/04/20 20:03	1634-04-4	
Methylene Chloride	**113 U**	ug/m3	113	15.5	12.8		03/04/20 20:03	75-09-2	
Naphthalene	**34.0 U**	ug/m3	34.0	16.8	12.8		03/04/20 20:03	91-20-3	
Styrene	**11.1 U**	ug/m3	11.1	4.4	12.8		03/04/20 20:03	100-42-5	
Tetrachloroethene	**8.8 U**	ug/m3	8.8	4.0	12.8		03/04/20 20:03	127-18-4	
Toluene	**4.7J**	ug/m3	9.8	4.5	12.8		03/04/20 20:03	108-88-3	
Trichloroethene	**7.0 U**	ug/m3	7.0	3.2	12.8		03/04/20 20:03	79-01-6	
Trichlorofluoromethane	**14.6 U**	ug/m3	14.6	4.7	12.8		03/04/20 20:03	75-69-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Sample: A10-040 **Lab ID: 30352629001** Collected: 02/28/20 11:20 Received: 03/03/20 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Vinyl chloride	**3.3 U**	ug/m3	3.3	1.6	12.8		03/04/20 20:03	75-01-4	
cis-1,2-Dichloroethene	**10.3 U**	ug/m3	10.3	2.8	12.8		03/04/20 20:03	156-59-2	
cis-1,3-Dichloropropene	**11.8 U**	ug/m3	11.8	3.9	12.8		03/04/20 20:03	10061-01-5	
m&p-Xylene	**22.7 U**	ug/m3	22.7	8.9	12.8		03/04/20 20:03	179601-23-1	
o-Xylene	**11.3 U**	ug/m3	11.3	4.4	12.8		03/04/20 20:03	95-47-6	
trans-1,2-Dichloroethene	**10.3 U**	ug/m3	10.3	3.6	12.8		03/04/20 20:03	156-60-5	
trans-1,3-Dichloropropene	**11.8 U**	ug/m3	11.8	5.6	12.8		03/04/20 20:03	10061-02-6	

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ANALYTICAL RESULTS

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Sample: Equipment Blank **Lab ID: 30352629002** Collected: 02/28/20 11:20 Received: 03/03/20 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
1,1,1-Trichloroethane	**2.2 U**	ug/m3	2.2	0.61	1.98		03/04/20 20:31	71-55-6	
1,1,2,2-Tetrachloroethane	**1.4 U**	ug/m3	1.4	0.61	1.98		03/04/20 20:31	79-34-5	
1,1,2-Trichloroethane	**1.1 U**	ug/m3	1.1	0.48	1.98		03/04/20 20:31	79-00-5	
1,1,2-Trichlorotrifluoroethane	**3.1 U**	ug/m3	3.1	1.1	1.98		03/04/20 20:31	76-13-1	
1,1-Dichloroethane	**1.6 U**	ug/m3	1.6	0.45	1.98		03/04/20 20:31	75-34-3	
1,1-Dichloroethene	**1.6 U**	ug/m3	1.6	0.54	1.98		03/04/20 20:31	75-35-4	
1,2,3-Trimethylbenzene	**2.0 U**	ug/m3	2.0	0.80	1.98		03/04/20 20:31	526-73-8	
1,2,4-Trichlorobenzene	**14.9 U**	ug/m3	14.9	7.4	1.98		03/04/20 20:31	120-82-1	
1,2,4-Trimethylbenzene	**2.0 U**	ug/m3	2.0	0.89	1.98		03/04/20 20:31	95-63-6	
1,2-Dibromoethane (EDB)	**1.5 U**	ug/m3	1.5	0.72	1.98		03/04/20 20:31	106-93-4	
1,2-Dichlorobenzene	**2.4 U**	ug/m3	2.4	0.99	1.98		03/04/20 20:31	95-50-1	
1,2-Dichloroethane	**0.81 U**	ug/m3	0.81	0.30	1.98		03/04/20 20:31	107-06-2	
1,2-Dichloroethene (Total)	**0.93J**	ug/m3	3.2	0.56	1.98		03/04/20 20:31	540-59-0	N2
1,2-Dichloropropane	**1.9 U**	ug/m3	1.9	0.46	1.98		03/04/20 20:31	78-87-5	
1,3,5-Trimethylbenzene	**2.0 U**	ug/m3	2.0	0.79	1.98		03/04/20 20:31	108-67-8	
1,3-Dichlorobenzene	**2.4 U**	ug/m3	2.4	1.2	1.98		03/04/20 20:31	541-73-1	
1,4-Dichlorobenzene	**6.1 U**	ug/m3	6.1	2.0	1.98		03/04/20 20:31	106-46-7	
1,4-Dioxane (p-Dioxane)	**7.2 U**	ug/m3	7.2	1.5	1.98		03/04/20 20:31	123-91-1	
2-Butanone (MEK)	**5.9 U**	ug/m3	5.9	0.73	1.98		03/04/20 20:31	78-93-3	
2-Hexanone	**8.2 U**	ug/m3	8.2	1.5	1.98		03/04/20 20:31	591-78-6	
4-Methyl-2-pentanone (MIBK)	**8.2 U**	ug/m3	8.2	1.0	1.98		03/04/20 20:31	108-10-1	
Acetone	**15.0**	ug/m3	4.8	2.4	1.98		03/04/20 20:31	67-64-1	
Benzene	**1.2**	ug/m3	0.64	0.30	1.98		03/04/20 20:31	71-43-2	
Bromodichloromethane	**2.7 U**	ug/m3	2.7	0.72	1.98		03/04/20 20:31	75-27-4	
Bromoform	**10.4 U**	ug/m3	10.4	2.8	1.98		03/04/20 20:31	75-25-2	
Bromomethane	**1.6 U**	ug/m3	1.6	0.45	1.98		03/04/20 20:31	74-83-9	
Carbon disulfide	**1.3 U**	ug/m3	1.3	0.43	1.98		03/04/20 20:31	75-15-0	
Carbon tetrachloride	**2.5 U**	ug/m3	2.5	0.85	1.98		03/04/20 20:31	56-23-5	
Chlorobenzene	**1.9 U**	ug/m3	1.9	0.54	1.98		03/04/20 20:31	108-90-7	
Chloroethane	**1.1 U**	ug/m3	1.1	0.51	1.98		03/04/20 20:31	75-00-3	
Chloroform	**0.98 U**	ug/m3	0.98	0.39	1.98		03/04/20 20:31	67-66-3	
Chloromethane	**0.81J**	ug/m3	0.83	0.31	1.98		03/04/20 20:31	74-87-3	
Cyclohexane	**3.5 U**	ug/m3	3.5	0.70	1.98		03/04/20 20:31	110-82-7	
Dibromochloromethane	**3.4 U**	ug/m3	3.4	1.4	1.98		03/04/20 20:31	124-48-1	
Dichlorodifluoromethane	**2.6**	ug/m3	2.0	0.58	1.98		03/04/20 20:31	75-71-8	
Ethylbenzene	**1.7 U**	ug/m3	1.7	0.60	1.98		03/04/20 20:31	100-41-4	
Hexachloro-1,3-butadiene	**10.7 U**	ug/m3	10.7	3.9	1.98		03/04/20 20:31	87-68-3	
Isopropylbenzene (Cumene)	**5.0 U**	ug/m3	5.0	0.75	1.98		03/04/20 20:31	98-82-8	
Methyl-tert-butyl ether	**7.2 U**	ug/m3	7.2	1.3	1.98		03/04/20 20:31	1634-04-4	
Methylene Chloride	**17.5 U**	ug/m3	17.5	2.4	1.98		03/04/20 20:31	75-09-2	
Naphthalene	**5.3 U**	ug/m3	5.3	2.6	1.98		03/04/20 20:31	91-20-3	
Styrene	**1.7 U**	ug/m3	1.7	0.68	1.98		03/04/20 20:31	100-42-5	
Tetrachloroethene	**7.7**	ug/m3	1.4	0.62	1.98		03/04/20 20:31	127-18-4	
Toluene	**1.4J**	ug/m3	1.5	0.69	1.98		03/04/20 20:31	108-88-3	
Trichloroethene	**1.1 U**	ug/m3	1.1	0.50	1.98		03/04/20 20:31	79-01-6	
Trichlorofluoromethane	**1.2J**	ug/m3	2.3	0.72	1.98		03/04/20 20:31	75-69-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Sample: Equipment Blank **Lab ID: 30352629002** Collected: 02/28/20 11:20 Received: 03/03/20 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Vinyl chloride	**0.51 U**	ug/m3	0.51	0.25	1.98		03/04/20 20:31	75-01-4	
cis-1,2-Dichloroethene	**0.93J**	ug/m3	1.6	0.43	1.98		03/04/20 20:31	156-59-2	
cis-1,3-Dichloropropene	**1.8 U**	ug/m3	1.8	0.60	1.98		03/04/20 20:31	10061-01-5	
m&p-Xylene	**3.5 U**	ug/m3	3.5	1.4	1.98		03/04/20 20:31	179601-23-1	
o-Xylene	**1.7 U**	ug/m3	1.7	0.68	1.98		03/04/20 20:31	95-47-6	
trans-1,2-Dichloroethene	**1.6 U**	ug/m3	1.6	0.56	1.98		03/04/20 20:31	156-60-5	
trans-1,3-Dichloropropene	**1.8 U**	ug/m3	1.8	0.87	1.98		03/04/20 20:31	10061-02-6	

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ANALYTICAL RESULTS

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Sample: A10-034 **Lab ID: 30352629003** Collected: 02/28/20 11:18 Received: 03/03/20 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
1,1,1-Trichloroethane	**2.0 U**	ug/m3	2.0	0.55	1.77		03/04/20 20:59	71-55-6	
1,1,2,2-Tetrachloroethane	**1.2 U**	ug/m3	1.2	0.55	1.77		03/04/20 20:59	79-34-5	
1,1,2-Trichloroethane	**0.98 U**	ug/m3	0.98	0.43	1.77		03/04/20 20:59	79-00-5	
1,1,2-Trichlorotrifluoroethane	**2.8 U**	ug/m3	2.8	1.0	1.77		03/04/20 20:59	76-13-1	
1,1-Dichloroethane	**1.5 U**	ug/m3	1.5	0.40	1.77		03/04/20 20:59	75-34-3	
1,1-Dichloroethene	**1.4 U**	ug/m3	1.4	0.48	1.77		03/04/20 20:59	75-35-4	
1,2,3-Trimethylbenzene	**1.8 U**	ug/m3	1.8	0.71	1.77		03/04/20 20:59	526-73-8	
1,2,4-Trichlorobenzene	**13.3 U**	ug/m3	13.3	6.6	1.77		03/04/20 20:59	120-82-1	
1,2,4-Trimethylbenzene	**1.8 U**	ug/m3	1.8	0.80	1.77		03/04/20 20:59	95-63-6	
1,2-Dibromoethane (EDB)	**1.4 U**	ug/m3	1.4	0.65	1.77		03/04/20 20:59	106-93-4	
1,2-Dichlorobenzene	**2.2 U**	ug/m3	2.2	0.88	1.77		03/04/20 20:59	95-50-1	
1,2-Dichloroethane	**0.73 U**	ug/m3	0.73	0.27	1.77		03/04/20 20:59	107-06-2	
1,2-Dichloroethene (Total)	**2.8 U**	ug/m3	2.8	0.50	1.77		03/04/20 20:59	540-59-0	N2
1,2-Dichloropropane	**1.7 U**	ug/m3	1.7	0.41	1.77		03/04/20 20:59	78-87-5	
1,3,5-Trimethylbenzene	**1.8 U**	ug/m3	1.8	0.71	1.77		03/04/20 20:59	108-67-8	
1,3-Dichlorobenzene	**1.2J**	ug/m3	2.2	1.0	1.77		03/04/20 20:59	541-73-1	
1,4-Dichlorobenzene	**5.4 U**	ug/m3	5.4	1.8	1.77		03/04/20 20:59	106-46-7	
1,4-Dioxane (p-Dioxane)	**6.5 U**	ug/m3	6.5	1.3	1.77		03/04/20 20:59	123-91-1	
2-Butanone (MEK)	**3.2J**	ug/m3	5.3	0.65	1.77		03/04/20 20:59	78-93-3	
2-Hexanone	**7.4 U**	ug/m3	7.4	1.3	1.77		03/04/20 20:59	591-78-6	
4-Methyl-2-pentanone (MIBK)	**7.4 U**	ug/m3	7.4	0.92	1.77		03/04/20 20:59	108-10-1	
Acetone	**98.8**	ug/m3	4.3	2.1	1.77		03/04/20 20:59	67-64-1	
Benzene	**2.5**	ug/m3	0.58	0.27	1.77		03/04/20 20:59	71-43-2	
Bromodichloromethane	**2.4 U**	ug/m3	2.4	0.65	1.77		03/04/20 20:59	75-27-4	
Bromoform	**9.3 U**	ug/m3	9.3	2.5	1.77		03/04/20 20:59	75-25-2	
Bromomethane	**1.4 U**	ug/m3	1.4	0.40	1.77		03/04/20 20:59	74-83-9	
Carbon disulfide	**12.6**	ug/m3	1.1	0.39	1.77		03/04/20 20:59	75-15-0	
Carbon tetrachloride	**2.3 U**	ug/m3	2.3	0.76	1.77		03/04/20 20:59	56-23-5	
Chlorobenzene	**1.7 U**	ug/m3	1.7	0.49	1.77		03/04/20 20:59	108-90-7	
Chloroethane	**0.95 U**	ug/m3	0.95	0.46	1.77		03/04/20 20:59	75-00-3	
Chloroform	**0.88 U**	ug/m3	0.88	0.35	1.77		03/04/20 20:59	67-66-3	
Chloromethane	**0.62J**	ug/m3	0.74	0.28	1.77		03/04/20 20:59	74-87-3	
Cyclohexane	**3.1 U**	ug/m3	3.1	0.62	1.77		03/04/20 20:59	110-82-7	
Dibromochloromethane	**3.1 U**	ug/m3	3.1	1.3	1.77		03/04/20 20:59	124-48-1	
Dichlorodifluoromethane	**2.5**	ug/m3	1.8	0.52	1.77		03/04/20 20:59	75-71-8	
Ethylbenzene	**0.68J**	ug/m3	1.6	0.54	1.77		03/04/20 20:59	100-41-4	
Hexachloro-1,3-butadiene	**9.6 U**	ug/m3	9.6	3.5	1.77		03/04/20 20:59	87-68-3	
Isopropylbenzene (Cumene)	**4.4 U**	ug/m3	4.4	0.67	1.77		03/04/20 20:59	98-82-8	
Methyl-tert-butyl ether	**6.5 U**	ug/m3	6.5	1.2	1.77		03/04/20 20:59	1634-04-4	
Methylene Chloride	**15.6 U**	ug/m3	15.6	2.1	1.77		03/04/20 20:59	75-09-2	
Naphthalene	**5.5**	ug/m3	4.7	2.3	1.77		03/04/20 20:59	91-20-3	
Styrene	**1.5 U**	ug/m3	1.5	0.61	1.77		03/04/20 20:59	100-42-5	
Tetrachloroethene	**1.6**	ug/m3	1.2	0.56	1.77		03/04/20 20:59	127-18-4	
Toluene	**6.1**	ug/m3	1.4	0.62	1.77		03/04/20 20:59	108-88-3	
Trichloroethene	**0.97 U**	ug/m3	0.97	0.45	1.77		03/04/20 20:59	79-01-6	
Trichlorofluoromethane	**1.3J**	ug/m3	2.0	0.65	1.77		03/04/20 20:59	75-69-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Sample: A10-034 **Lab ID: 30352629003** Collected: 02/28/20 11:18 Received: 03/03/20 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Vinyl chloride	**0.46 U**	ug/m3	0.46	0.22	1.77		03/04/20 20:59	75-01-4	
cis-1,2-Dichloroethene	**1.4 U**	ug/m3	1.4	0.39	1.77		03/04/20 20:59	156-59-2	
cis-1,3-Dichloropropene	**1.6 U**	ug/m3	1.6	0.54	1.77		03/04/20 20:59	10061-01-5	
m&p-Xylene	**2.4J**	ug/m3	3.1	1.2	1.77		03/04/20 20:59	179601-23-1	
o-Xylene	**0.84J**	ug/m3	1.6	0.61	1.77		03/04/20 20:59	95-47-6	
trans-1,2-Dichloroethene	**1.4 U**	ug/m3	1.4	0.50	1.77		03/04/20 20:59	156-60-5	
trans-1,3-Dichloropropene	**1.6 U**	ug/m3	1.6	0.78	1.77		03/04/20 20:59	10061-02-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
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ANALYTICAL RESULTS

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Sample: A10-024 **Lab ID: 30352629004** Collected: 02/28/20 10:14 Received: 03/03/20 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
1,1,1-Trichloroethane	**1.9 U**	ug/m3	1.9	0.54	1.74		03/04/20 21:28	71-55-6	
1,1,2,2-Tetrachloroethane	**1.2 U**	ug/m3	1.2	0.54	1.74		03/04/20 21:28	79-34-5	
1,1,2-Trichloroethane	**0.97 U**	ug/m3	0.97	0.42	1.74		03/04/20 21:28	79-00-5	
1,1,2-Trichlorotrifluoroethane	**2.7 U**	ug/m3	2.7	0.98	1.74		03/04/20 21:28	76-13-1	
1,1-Dichloroethane	**1.4 U**	ug/m3	1.4	0.39	1.74		03/04/20 21:28	75-34-3	
1,1-Dichloroethene	**1.4 U**	ug/m3	1.4	0.48	1.74		03/04/20 21:28	75-35-4	
1,2,3-Trimethylbenzene	**1.7 U**	ug/m3	1.7	0.70	1.74		03/04/20 21:28	526-73-8	
1,2,4-Trichlorobenzene	**13.1 U**	ug/m3	13.1	6.5	1.74		03/04/20 21:28	120-82-1	
1,2,4-Trimethylbenzene	**0.94J**	ug/m3	1.7	0.79	1.74		03/04/20 21:28	95-63-6	
1,2-Dibromoethane (EDB)	**1.4 U**	ug/m3	1.4	0.64	1.74		03/04/20 21:28	106-93-4	
1,2-Dichlorobenzene	**2.1 U**	ug/m3	2.1	0.87	1.74		03/04/20 21:28	95-50-1	
1,2-Dichloroethane	**0.72 U**	ug/m3	0.72	0.26	1.74		03/04/20 21:28	107-06-2	
1,2-Dichloroethene (Total)	**2.8 U**	ug/m3	2.8	0.50	1.74		03/04/20 21:28	540-59-0	N2
1,2-Dichloropropane	**1.6 U**	ug/m3	1.6	0.40	1.74		03/04/20 21:28	78-87-5	
1,3,5-Trimethylbenzene	**1.7 U**	ug/m3	1.7	0.69	1.74		03/04/20 21:28	108-67-8	
1,3-Dichlorobenzene	**2.1 U**	ug/m3	2.1	1.0	1.74		03/04/20 21:28	541-73-1	
1,4-Dichlorobenzene	**5.3 U**	ug/m3	5.3	1.7	1.74		03/04/20 21:28	106-46-7	
1,4-Dioxane (p-Dioxane)	**6.4 U**	ug/m3	6.4	1.3	1.74		03/04/20 21:28	123-91-1	
2-Butanone (MEK)	**1.0J**	ug/m3	5.2	0.64	1.74		03/04/20 21:28	78-93-3	
2-Hexanone	**7.2 U**	ug/m3	7.2	1.3	1.74		03/04/20 21:28	591-78-6	
4-Methyl-2-pentanone (MIBK)	**7.2 U**	ug/m3	7.2	0.90	1.74		03/04/20 21:28	108-10-1	
Acetone	**37.7**	ug/m3	4.2	2.1	1.74		03/04/20 21:28	67-64-1	
Benzene	**2.0**	ug/m3	0.57	0.27	1.74		03/04/20 21:28	71-43-2	
Bromodichloromethane	**2.4 U**	ug/m3	2.4	0.64	1.74		03/04/20 21:28	75-27-4	
Bromoform	**9.1 U**	ug/m3	9.1	2.5	1.74		03/04/20 21:28	75-25-2	
Bromomethane	**1.4 U**	ug/m3	1.4	0.39	1.74		03/04/20 21:28	74-83-9	
Carbon disulfide	**0.91J**	ug/m3	1.1	0.38	1.74		03/04/20 21:28	75-15-0	
Carbon tetrachloride	**2.2 U**	ug/m3	2.2	0.75	1.74		03/04/20 21:28	56-23-5	
Chlorobenzene	**1.6 U**	ug/m3	1.6	0.48	1.74		03/04/20 21:28	108-90-7	
Chloroethane	**0.93 U**	ug/m3	0.93	0.45	1.74		03/04/20 21:28	75-00-3	
Chloroform	**0.86 U**	ug/m3	0.86	0.34	1.74		03/04/20 21:28	67-66-3	
Chloromethane	**0.56J**	ug/m3	0.73	0.27	1.74		03/04/20 21:28	74-87-3	
Cyclohexane	**17.1**	ug/m3	3.0	0.61	1.74		03/04/20 21:28	110-82-7	
Dibromochloromethane	**3.0 U**	ug/m3	3.0	1.3	1.74		03/04/20 21:28	124-48-1	
Dichlorodifluoromethane	**1.8 U**	ug/m3	1.8	0.51	1.74		03/04/20 21:28	75-71-8	
Ethylbenzene	**0.83J**	ug/m3	1.5	0.53	1.74		03/04/20 21:28	100-41-4	
Hexachloro-1,3-butadiene	**9.4 U**	ug/m3	9.4	3.4	1.74		03/04/20 21:28	87-68-3	
Isopropylbenzene (Cumene)	**4.4 U**	ug/m3	4.4	0.66	1.74		03/04/20 21:28	98-82-8	
Methyl-tert-butyl ether	**6.4 U**	ug/m3	6.4	1.2	1.74		03/04/20 21:28	1634-04-4	
Methylene Chloride	**15.4 U**	ug/m3	15.4	2.1	1.74		03/04/20 21:28	75-09-2	
Naphthalene	**4.6 U**	ug/m3	4.6	2.3	1.74		03/04/20 21:28	91-20-3	
Styrene	**1.5 U**	ug/m3	1.5	0.60	1.74		03/04/20 21:28	100-42-5	
Tetrachloroethene	**1.2 U**	ug/m3	1.2	0.55	1.74		03/04/20 21:28	127-18-4	
Toluene	**5.0**	ug/m3	1.3	0.61	1.74		03/04/20 21:28	108-88-3	
Trichloroethene	**0.95 U**	ug/m3	0.95	0.44	1.74		03/04/20 21:28	79-01-6	
Trichlorofluoromethane	**2.0 U**	ug/m3	2.0	0.64	1.74		03/04/20 21:28	75-69-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Sample: A10-024 **Lab ID: 30352629004** Collected: 02/28/20 10:14 Received: 03/03/20 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Vinyl chloride	**0.45 U**	ug/m3	0.45	0.22	1.74		03/04/20 21:28	75-01-4	
cis-1,2-Dichloroethene	**1.4 U**	ug/m3	1.4	0.38	1.74		03/04/20 21:28	156-59-2	
cis-1,3-Dichloropropene	**1.6 U**	ug/m3	1.6	0.53	1.74		03/04/20 21:28	10061-01-5	
m&p-Xylene	**2.8J**	ug/m3	3.1	1.2	1.74		03/04/20 21:28	179601-23-1	
o-Xylene	**1.0J**	ug/m3	1.5	0.60	1.74		03/04/20 21:28	95-47-6	
trans-1,2-Dichloroethene	**1.4 U**	ug/m3	1.4	0.50	1.74		03/04/20 21:28	156-60-5	
trans-1,3-Dichloropropene	**1.6 U**	ug/m3	1.6	0.77	1.74		03/04/20 21:28	10061-02-6	

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ANALYTICAL RESULTS

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Sample: A10-Duplicate **Lab ID: 30352629005** Collected: 02/28/20 10:14 Received: 03/03/20 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
1,1,1-Trichloroethane	**1.9 U**	ug/m3	1.9	0.54	1.74		03/04/20 21:56	71-55-6	
1,1,2,2-Tetrachloroethane	**1.2 U**	ug/m3	1.2	0.54	1.74		03/04/20 21:56	79-34-5	
1,1,2-Trichloroethane	**0.97 U**	ug/m3	0.97	0.42	1.74		03/04/20 21:56	79-00-5	
1,1,2-Trichlorotrifluoroethane	**2.7 U**	ug/m3	2.7	0.98	1.74		03/04/20 21:56	76-13-1	
1,1-Dichloroethane	**1.4 U**	ug/m3	1.4	0.39	1.74		03/04/20 21:56	75-34-3	
1,1-Dichloroethene	**1.4 U**	ug/m3	1.4	0.48	1.74		03/04/20 21:56	75-35-4	
1,2,3-Trimethylbenzene	**1.7 U**	ug/m3	1.7	0.70	1.74		03/04/20 21:56	526-73-8	
1,2,4-Trichlorobenzene	**13.1 U**	ug/m3	13.1	6.5	1.74		03/04/20 21:56	120-82-1	
1,2,4-Trimethylbenzene	**0.98J**	ug/m3	1.7	0.79	1.74		03/04/20 21:56	95-63-6	
1,2-Dibromoethane (EDB)	**1.4 U**	ug/m3	1.4	0.64	1.74		03/04/20 21:56	106-93-4	
1,2-Dichlorobenzene	**2.1 U**	ug/m3	2.1	0.87	1.74		03/04/20 21:56	95-50-1	
1,2-Dichloroethane	**0.72 U**	ug/m3	0.72	0.26	1.74		03/04/20 21:56	107-06-2	
1,2-Dichloroethene (Total)	**2.8 U**	ug/m3	2.8	0.50	1.74		03/04/20 21:56	540-59-0	N2
1,2-Dichloropropane	**1.6 U**	ug/m3	1.6	0.40	1.74		03/04/20 21:56	78-87-5	
1,3,5-Trimethylbenzene	**1.7 U**	ug/m3	1.7	0.69	1.74		03/04/20 21:56	108-67-8	
1,3-Dichlorobenzene	**2.1 U**	ug/m3	2.1	1.0	1.74		03/04/20 21:56	541-73-1	
1,4-Dichlorobenzene	**5.3 U**	ug/m3	5.3	1.7	1.74		03/04/20 21:56	106-46-7	
1,4-Dioxane (p-Dioxane)	**6.4 U**	ug/m3	6.4	1.3	1.74		03/04/20 21:56	123-91-1	
2-Butanone (MEK)	**3.8J**	ug/m3	5.2	0.64	1.74		03/04/20 21:56	78-93-3	
2-Hexanone	**2.5J**	ug/m3	7.2	1.3	1.74		03/04/20 21:56	591-78-6	
4-Methyl-2-pentanone (MIBK)	**7.2 U**	ug/m3	7.2	0.90	1.74		03/04/20 21:56	108-10-1	
Acetone	**36.8**	ug/m3	4.2	2.1	1.74		03/04/20 21:56	67-64-1	
Benzene	**2.0**	ug/m3	0.57	0.27	1.74		03/04/20 21:56	71-43-2	
Bromodichloromethane	**2.4 U**	ug/m3	2.4	0.64	1.74		03/04/20 21:56	75-27-4	
Bromoform	**9.1 U**	ug/m3	9.1	2.5	1.74		03/04/20 21:56	75-25-2	
Bromomethane	**1.4 U**	ug/m3	1.4	0.39	1.74		03/04/20 21:56	74-83-9	
Carbon disulfide	**0.98J**	ug/m3	1.1	0.38	1.74		03/04/20 21:56	75-15-0	
Carbon tetrachloride	**2.2 U**	ug/m3	2.2	0.75	1.74		03/04/20 21:56	56-23-5	
Chlorobenzene	**1.6 U**	ug/m3	1.6	0.48	1.74		03/04/20 21:56	108-90-7	
Chloroethane	**0.93 U**	ug/m3	0.93	0.45	1.74		03/04/20 21:56	75-00-3	
Chloroform	**0.86 U**	ug/m3	0.86	0.34	1.74		03/04/20 21:56	67-66-3	
Chloromethane	**0.73 U**	ug/m3	0.73	0.27	1.74		03/04/20 21:56	74-87-3	
Cyclohexane	**17.2**	ug/m3	3.0	0.61	1.74		03/04/20 21:56	110-82-7	
Dibromochloromethane	**3.0 U**	ug/m3	3.0	1.3	1.74		03/04/20 21:56	124-48-1	
Dichlorodifluoromethane	**1.8 U**	ug/m3	1.8	0.51	1.74		03/04/20 21:56	75-71-8	
Ethylbenzene	**0.92J**	ug/m3	1.5	0.53	1.74		03/04/20 21:56	100-41-4	
Hexachloro-1,3-butadiene	**9.4 U**	ug/m3	9.4	3.4	1.74		03/04/20 21:56	87-68-3	
Isopropylbenzene (Cumene)	**4.4 U**	ug/m3	4.4	0.66	1.74		03/04/20 21:56	98-82-8	
Methyl-tert-butyl ether	**6.4 U**	ug/m3	6.4	1.2	1.74		03/04/20 21:56	1634-04-4	
Methylene Chloride	**15.4 U**	ug/m3	15.4	2.1	1.74		03/04/20 21:56	75-09-2	
Naphthalene	**2.4J**	ug/m3	4.6	2.3	1.74		03/04/20 21:56	91-20-3	
Styrene	**1.5 U**	ug/m3	1.5	0.60	1.74		03/04/20 21:56	100-42-5	
Tetrachloroethene	**1.2 U**	ug/m3	1.2	0.55	1.74		03/04/20 21:56	127-18-4	
Toluene	**5.1**	ug/m3	1.3	0.61	1.74		03/04/20 21:56	108-88-3	
Trichloroethene	**0.95 U**	ug/m3	0.95	0.44	1.74		03/04/20 21:56	79-01-6	
Trichlorofluoromethane	**2.0 U**	ug/m3	2.0	0.64	1.74		03/04/20 21:56	75-69-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
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ANALYTICAL RESULTS

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Sample: A10-Duplicate **Lab ID: 30352629005** Collected: 02/28/20 10:14 Received: 03/03/20 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Vinyl chloride	**0.45 U**	ug/m3	0.45	0.22	1.74		03/04/20 21:56	75-01-4	
cis-1,2-Dichloroethene	**1.4 U**	ug/m3	1.4	0.38	1.74		03/04/20 21:56	156-59-2	
cis-1,3-Dichloropropene	**1.6 U**	ug/m3	1.6	0.53	1.74		03/04/20 21:56	10061-01-5	
m&p-Xylene	**3.0J**	ug/m3	3.1	1.2	1.74		03/04/20 21:56	179601-23-1	
o-Xylene	**1.0J**	ug/m3	1.5	0.60	1.74		03/04/20 21:56	95-47-6	
trans-1,2-Dichloroethene	**1.4 U**	ug/m3	1.4	0.50	1.74		03/04/20 21:56	156-60-5	
trans-1,3-Dichloropropene	**1.6 U**	ug/m3	1.6	0.77	1.74		03/04/20 21:56	10061-02-6	

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Sample: A10-039 **Lab ID: 30352629006** Collected: 02/28/20 11:11 Received: 03/03/20 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
1,1,1-Trichloroethane	**2.1 U**	ug/m3	2.1	0.58	1.87		03/04/20 22:24	71-55-6	
1,1,2,2-Tetrachloroethane	**1.3 U**	ug/m3	1.3	0.58	1.87		03/04/20 22:24	79-34-5	
1,1,2-Trichloroethane	**1.0 U**	ug/m3	1.0	0.45	1.87		03/04/20 22:24	79-00-5	
1,1,2-Trichlorotrifluoroethane	**2.9 U**	ug/m3	2.9	1.1	1.87		03/04/20 22:24	76-13-1	
1,1-Dichloroethane	**1.5 U**	ug/m3	1.5	0.42	1.87		03/04/20 22:24	75-34-3	
1,1-Dichloroethene	**1.5 U**	ug/m3	1.5	0.51	1.87		03/04/20 22:24	75-35-4	
1,2,3-Trimethylbenzene	**1.9 U**	ug/m3	1.9	0.75	1.87		03/04/20 22:24	526-73-8	
1,2,4-Trichlorobenzene	**14.1 U**	ug/m3	14.1	7.0	1.87		03/04/20 22:24	120-82-1	
1,2,4-Trimethylbenzene	**1.9 U**	ug/m3	1.9	0.85	1.87		03/04/20 22:24	95-63-6	
1,2-Dibromoethane (EDB)	**1.5 U**	ug/m3	1.5	0.68	1.87		03/04/20 22:24	106-93-4	
1,2-Dichlorobenzene	**2.3 U**	ug/m3	2.3	0.93	1.87		03/04/20 22:24	95-50-1	
1,2-Dichloroethane	**0.77 U**	ug/m3	0.77	0.28	1.87		03/04/20 22:24	107-06-2	
1,2-Dichloroethene (Total)	**3.0 U**	ug/m3	3.0	0.53	1.87		03/04/20 22:24	540-59-0	N2
1,2-Dichloropropane	**1.8 U**	ug/m3	1.8	0.43	1.87		03/04/20 22:24	78-87-5	
1,3,5-Trimethylbenzene	**1.9 U**	ug/m3	1.9	0.75	1.87		03/04/20 22:24	108-67-8	
1,3-Dichlorobenzene	**2.3 U**	ug/m3	2.3	1.1	1.87		03/04/20 22:24	541-73-1	
1,4-Dichlorobenzene	**5.7 U**	ug/m3	5.7	1.9	1.87		03/04/20 22:24	106-46-7	
1,4-Dioxane (p-Dioxane)	**6.8 U**	ug/m3	6.8	1.4	1.87		03/04/20 22:24	123-91-1	
2-Butanone (MEK)	**2.1J**	ug/m3	5.6	0.69	1.87		03/04/20 22:24	78-93-3	
2-Hexanone	**7.8 U**	ug/m3	7.8	1.4	1.87		03/04/20 22:24	591-78-6	
4-Methyl-2-pentanone (MIBK)	**7.8 U**	ug/m3	7.8	0.97	1.87		03/04/20 22:24	108-10-1	
Acetone	**23.3**	ug/m3	4.5	2.3	1.87		03/04/20 22:24	67-64-1	
Benzene	**1.2**	ug/m3	0.61	0.29	1.87		03/04/20 22:24	71-43-2	
Bromodichloromethane	**2.5 U**	ug/m3	2.5	0.68	1.87		03/04/20 22:24	75-27-4	
Bromoform	**9.8 U**	ug/m3	9.8	2.7	1.87		03/04/20 22:24	75-25-2	
Bromomethane	**1.5 U**	ug/m3	1.5	0.42	1.87		03/04/20 22:24	74-83-9	
Carbon disulfide	**1.2 U**	ug/m3	1.2	0.41	1.87		03/04/20 22:24	75-15-0	
Carbon tetrachloride	**2.4 U**	ug/m3	2.4	0.80	1.87		03/04/20 22:24	56-23-5	
Chlorobenzene	**1.8 U**	ug/m3	1.8	0.51	1.87		03/04/20 22:24	108-90-7	
Chloroethane	**1.0 U**	ug/m3	1.0	0.49	1.87		03/04/20 22:24	75-00-3	
Chloroform	**0.93 U**	ug/m3	0.93	0.37	1.87		03/04/20 22:24	67-66-3	
Chloromethane	**1.2**	ug/m3	0.79	0.29	1.87		03/04/20 22:24	74-87-3	
Cyclohexane	**1.0J**	ug/m3	3.3	0.66	1.87		03/04/20 22:24	110-82-7	
Dibromochloromethane	**3.2 U**	ug/m3	3.2	1.3	1.87		03/04/20 22:24	124-48-1	
Dichlorodifluoromethane	**2.3**	ug/m3	1.9	0.55	1.87		03/04/20 22:24	75-71-8	
Ethylbenzene	**1.7 U**	ug/m3	1.7	0.57	1.87		03/04/20 22:24	100-41-4	
Hexachloro-1,3-butadiene	**10.1 U**	ug/m3	10.1	3.7	1.87		03/04/20 22:24	87-68-3	
Isopropylbenzene (Cumene)	**4.7 U**	ug/m3	4.7	0.71	1.87		03/04/20 22:24	98-82-8	
Methyl-tert-butyl ether	**6.8 U**	ug/m3	6.8	1.2	1.87		03/04/20 22:24	1634-04-4	
Methylene Chloride	**16.5 U**	ug/m3	16.5	2.3	1.87		03/04/20 22:24	75-09-2	
Naphthalene	**5.0 U**	ug/m3	5.0	2.4	1.87		03/04/20 22:24	91-20-3	
Styrene	**1.6 U**	ug/m3	1.6	0.64	1.87		03/04/20 22:24	100-42-5	
Tetrachloroethene	**1.3 U**	ug/m3	1.3	0.59	1.87		03/04/20 22:24	127-18-4	
Toluene	**1.7**	ug/m3	1.4	0.66	1.87		03/04/20 22:24	108-88-3	
Trichloroethene	**1.0 U**	ug/m3	1.0	0.47	1.87		03/04/20 22:24	79-01-6	
Trichlorofluoromethane	**1.4J**	ug/m3	2.1	0.68	1.87		03/04/20 22:24	75-69-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Sample: A10-039 **Lab ID: 30352629006** Collected: 02/28/20 11:11 Received: 03/03/20 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Vinyl chloride	**0.49 U**	ug/m3	0.49	0.24	1.87		03/04/20 22:24	75-01-4	
cis-1,2-Dichloroethene	**1.5 U**	ug/m3	1.5	0.41	1.87		03/04/20 22:24	156-59-2	
cis-1,3-Dichloropropene	**1.7 U**	ug/m3	1.7	0.57	1.87		03/04/20 22:24	10061-01-5	
m&p-Xylene	**3.3 U**	ug/m3	3.3	1.3	1.87		03/04/20 22:24	179601-23-1	
o-Xylene	**1.7 U**	ug/m3	1.7	0.64	1.87		03/04/20 22:24	95-47-6	
trans-1,2-Dichloroethene	**1.5 U**	ug/m3	1.5	0.53	1.87		03/04/20 22:24	156-60-5	
trans-1,3-Dichloropropene	**1.7 U**	ug/m3	1.7	0.82	1.87		03/04/20 22:24	10061-02-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Sample: A10-025 **Lab ID: 30352629007** Collected: 02/28/20 11:08 Received: 03/03/20 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
1,1,1-Trichloroethane	**2.2 U**	ug/m3	2.2	0.60	1.94		03/04/20 22:52	71-55-6	
1,1,2,2-Tetrachloroethane	**1.4 U**	ug/m3	1.4	0.60	1.94		03/04/20 22:52	79-34-5	
1,1,2-Trichloroethane	**1.1 U**	ug/m3	1.1	0.47	1.94		03/04/20 22:52	79-00-5	
1,1,2-Trichlorotrifluoroethane	**3.0 U**	ug/m3	3.0	1.1	1.94		03/04/20 22:52	76-13-1	
1,1-Dichloroethane	**1.6 U**	ug/m3	1.6	0.44	1.94		03/04/20 22:52	75-34-3	
1,1-Dichloroethene	**1.6 U**	ug/m3	1.6	0.53	1.94		03/04/20 22:52	75-35-4	
1,2,3-Trimethylbenzene	**1.9 U**	ug/m3	1.9	0.78	1.94		03/04/20 22:52	526-73-8	
1,2,4-Trichlorobenzene	**14.6 U**	ug/m3	14.6	7.2	1.94		03/04/20 22:52	120-82-1	
1,2,4-Trimethylbenzene	**1.9 U**	ug/m3	1.9	0.88	1.94		03/04/20 22:52	95-63-6	
1,2-Dibromoethane (EDB)	**1.5 U**	ug/m3	1.5	0.71	1.94		03/04/20 22:52	106-93-4	
1,2-Dichlorobenzene	**2.4 U**	ug/m3	2.4	0.97	1.94		03/04/20 22:52	95-50-1	
1,2-Dichloroethane	**0.80 U**	ug/m3	0.80	0.29	1.94		03/04/20 22:52	107-06-2	
1,2-Dichloroethene (Total)	**3.1 U**	ug/m3	3.1	0.55	1.94		03/04/20 22:52	540-59-0	N2
1,2-Dichloropropane	**1.8 U**	ug/m3	1.8	0.45	1.94		03/04/20 22:52	78-87-5	
1,3,5-Trimethylbenzene	**1.3J**	ug/m3	1.9	0.77	1.94		03/04/20 22:52	108-67-8	
1,3-Dichlorobenzene	**2.4 U**	ug/m3	2.4	1.1	1.94		03/04/20 22:52	541-73-1	
1,4-Dichlorobenzene	**5.9 U**	ug/m3	5.9	1.9	1.94		03/04/20 22:52	106-46-7	
1,4-Dioxane (p-Dioxane)	**7.1 U**	ug/m3	7.1	1.5	1.94		03/04/20 22:52	123-91-1	
2-Butanone (MEK)	**5.8 U**	ug/m3	5.8	0.72	1.94		03/04/20 22:52	78-93-3	
2-Hexanone	**8.1 U**	ug/m3	8.1	1.4	1.94		03/04/20 22:52	591-78-6	
4-Methyl-2-pentanone (MIBK)	**8.1 U**	ug/m3	8.1	1.0	1.94		03/04/20 22:52	108-10-1	
Acetone	**18.5**	ug/m3	4.7	2.3	1.94		03/04/20 22:52	67-64-1	
Benzene	**0.99**	ug/m3	0.63	0.30	1.94		03/04/20 22:52	71-43-2	
Bromodichloromethane	**2.6 U**	ug/m3	2.6	0.71	1.94		03/04/20 22:52	75-27-4	
Bromoform	**10.2 U**	ug/m3	10.2	2.8	1.94		03/04/20 22:52	75-25-2	
Bromomethane	**1.5 U**	ug/m3	1.5	0.44	1.94		03/04/20 22:52	74-83-9	
Carbon disulfide	**1.2 U**	ug/m3	1.2	0.42	1.94		03/04/20 22:52	75-15-0	
Carbon tetrachloride	**2.5 U**	ug/m3	2.5	0.83	1.94		03/04/20 22:52	56-23-5	
Chlorobenzene	**1.8 U**	ug/m3	1.8	0.53	1.94		03/04/20 22:52	108-90-7	
Chloroethane	**1.0 U**	ug/m3	1.0	0.50	1.94		03/04/20 22:52	75-00-3	
Chloroform	**0.96 U**	ug/m3	0.96	0.38	1.94		03/04/20 22:52	67-66-3	
Chloromethane	**0.89**	ug/m3	0.81	0.30	1.94		03/04/20 22:52	74-87-3	
Cyclohexane	**3.4 U**	ug/m3	3.4	0.68	1.94		03/04/20 22:52	110-82-7	
Dibromochloromethane	**3.4 U**	ug/m3	3.4	1.4	1.94		03/04/20 22:52	124-48-1	
Dichlorodifluoromethane	**2.4**	ug/m3	2.0	0.57	1.94		03/04/20 22:52	75-71-8	
Ethylbenzene	**1.7 U**	ug/m3	1.7	0.59	1.94		03/04/20 22:52	100-41-4	
Hexachloro-1,3-butadiene	**10.5 U**	ug/m3	10.5	3.8	1.94		03/04/20 22:52	87-68-3	
Isopropylbenzene (Cumene)	**4.8 U**	ug/m3	4.8	0.74	1.94		03/04/20 22:52	98-82-8	
Methyl-tert-butyl ether	**7.1 U**	ug/m3	7.1	1.3	1.94		03/04/20 22:52	1634-04-4	
Methylene Chloride	**17.1 U**	ug/m3	17.1	2.3	1.94		03/04/20 22:52	75-09-2	
Naphthalene	**5.2 U**	ug/m3	5.2	2.5	1.94		03/04/20 22:52	91-20-3	
Styrene	**1.7 U**	ug/m3	1.7	0.67	1.94		03/04/20 22:52	100-42-5	
Tetrachloroethene	**1.3 U**	ug/m3	1.3	0.61	1.94		03/04/20 22:52	127-18-4	
Toluene	**1.2J**	ug/m3	1.5	0.68	1.94		03/04/20 22:52	108-88-3	
Trichloroethene	**1.1 U**	ug/m3	1.1	0.49	1.94		03/04/20 22:52	79-01-6	
Trichlorofluoromethane	**1.3J**	ug/m3	2.2	0.71	1.94		03/04/20 22:52	75-69-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
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ANALYTICAL RESULTS

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Sample: A10-025 **Lab ID: 30352629007** Collected: 02/28/20 11:08 Received: 03/03/20 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Vinyl chloride	**0.50 U**	ug/m3	0.50	0.24	1.94		03/04/20 22:52	75-01-4	
cis-1,2-Dichloroethene	**1.6 U**	ug/m3	1.6	0.42	1.94		03/04/20 22:52	156-59-2	
cis-1,3-Dichloropropene	**1.8 U**	ug/m3	1.8	0.59	1.94		03/04/20 22:52	10061-01-5	
m&p-Xylene	**3.4 U**	ug/m3	3.4	1.4	1.94		03/04/20 22:52	179601-23-1	
o-Xylene	**1.7 U**	ug/m3	1.7	0.67	1.94		03/04/20 22:52	95-47-6	
trans-1,2-Dichloroethene	**1.6 U**	ug/m3	1.6	0.55	1.94		03/04/20 22:52	156-60-5	
trans-1,3-Dichloropropene	**1.8 U**	ug/m3	1.8	0.85	1.94		03/04/20 22:52	10061-02-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
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ANALYTICAL RESULTS

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Sample: A10-035 **Lab ID: 30352629008** Collected: 02/28/20 11:06 Received: 03/03/20 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
1,1,1-Trichloroethane	**2.1 U**	ug/m3	2.1	0.58	1.87		03/04/20 23:20	71-55-6	
1,1,2,2-Tetrachloroethane	**1.3 U**	ug/m3	1.3	0.58	1.87		03/04/20 23:20	79-34-5	
1,1,2-Trichloroethane	**1.0 U**	ug/m3	1.0	0.45	1.87		03/04/20 23:20	79-00-5	
1,1,2-Trichlorotrifluoroethane	**2.9 U**	ug/m3	2.9	1.1	1.87		03/04/20 23:20	76-13-1	
1,1-Dichloroethane	**1.5 U**	ug/m3	1.5	0.42	1.87		03/04/20 23:20	75-34-3	
1,1-Dichloroethene	**1.5 U**	ug/m3	1.5	0.51	1.87		03/04/20 23:20	75-35-4	
1,2,3-Trimethylbenzene	**1.9 U**	ug/m3	1.9	0.75	1.87		03/04/20 23:20	526-73-8	
1,2,4-Trichlorobenzene	**14.1 U**	ug/m3	14.1	7.0	1.87		03/04/20 23:20	120-82-1	
1,2,4-Trimethylbenzene	**1.9 U**	ug/m3	1.9	0.85	1.87		03/04/20 23:20	95-63-6	
1,2-Dibromoethane (EDB)	**1.5 U**	ug/m3	1.5	0.68	1.87		03/04/20 23:20	106-93-4	
1,2-Dichlorobenzene	**2.3 U**	ug/m3	2.3	0.93	1.87		03/04/20 23:20	95-50-1	
1,2-Dichloroethane	**0.77 U**	ug/m3	0.77	0.28	1.87		03/04/20 23:20	107-06-2	
1,2-Dichloroethene (Total)	**3.0 U**	ug/m3	3.0	0.53	1.87		03/04/20 23:20	540-59-0	N2
1,2-Dichloropropane	**1.8 U**	ug/m3	1.8	0.43	1.87		03/04/20 23:20	78-87-5	
1,3,5-Trimethylbenzene	**1.9 U**	ug/m3	1.9	0.75	1.87		03/04/20 23:20	108-67-8	
1,3-Dichlorobenzene	**2.3 U**	ug/m3	2.3	1.1	1.87		03/04/20 23:20	541-73-1	
1,4-Dichlorobenzene	**5.7 U**	ug/m3	5.7	1.9	1.87		03/04/20 23:20	106-46-7	
1,4-Dioxane (p-Dioxane)	**6.8 U**	ug/m3	6.8	1.4	1.87		03/04/20 23:20	123-91-1	
2-Butanone (MEK)	**3.4J**	ug/m3	5.6	0.69	1.87		03/04/20 23:20	78-93-3	
2-Hexanone	**7.8 U**	ug/m3	7.8	1.4	1.87		03/04/20 23:20	591-78-6	
4-Methyl-2-pentanone (MIBK)	**7.8 U**	ug/m3	7.8	0.97	1.87		03/04/20 23:20	108-10-1	
Acetone	**42.0**	ug/m3	4.5	2.3	1.87		03/04/20 23:20	67-64-1	
Benzene	**1.2**	ug/m3	0.61	0.29	1.87		03/04/20 23:20	71-43-2	
Bromodichloromethane	**2.5 U**	ug/m3	2.5	0.68	1.87		03/04/20 23:20	75-27-4	
Bromoform	**9.8 U**	ug/m3	9.8	2.7	1.87		03/04/20 23:20	75-25-2	
Bromomethane	**1.5 U**	ug/m3	1.5	0.42	1.87		03/04/20 23:20	74-83-9	
Carbon disulfide	**1.2 U**	ug/m3	1.2	0.41	1.87		03/04/20 23:20	75-15-0	
Carbon tetrachloride	**2.4 U**	ug/m3	2.4	0.80	1.87		03/04/20 23:20	56-23-5	
Chlorobenzene	**1.8 U**	ug/m3	1.8	0.51	1.87		03/04/20 23:20	108-90-7	
Chloroethane	**1.0 U**	ug/m3	1.0	0.49	1.87		03/04/20 23:20	75-00-3	
Chloroform	**0.93 U**	ug/m3	0.93	0.37	1.87		03/04/20 23:20	67-66-3	
Chloromethane	**1.1**	ug/m3	0.79	0.29	1.87		03/04/20 23:20	74-87-3	
Cyclohexane	**0.90J**	ug/m3	3.3	0.66	1.87		03/04/20 23:20	110-82-7	
Dibromochloromethane	**3.2 U**	ug/m3	3.2	1.3	1.87		03/04/20 23:20	124-48-1	
Dichlorodifluoromethane	**2.4**	ug/m3	1.9	0.55	1.87		03/04/20 23:20	75-71-8	
Ethylbenzene	**1.7 U**	ug/m3	1.7	0.57	1.87		03/04/20 23:20	100-41-4	
Hexachloro-1,3-butadiene	**10.1 U**	ug/m3	10.1	3.7	1.87		03/04/20 23:20	87-68-3	
Isopropylbenzene (Cumene)	**4.7 U**	ug/m3	4.7	0.71	1.87		03/04/20 23:20	98-82-8	
Methyl-tert-butyl ether	**6.8 U**	ug/m3	6.8	1.2	1.87		03/04/20 23:20	1634-04-4	
Methylene Chloride	**16.5 U**	ug/m3	16.5	2.3	1.87		03/04/20 23:20	75-09-2	
Naphthalene	**5.0 U**	ug/m3	5.0	2.4	1.87		03/04/20 23:20	91-20-3	
Styrene	**1.6 U**	ug/m3	1.6	0.64	1.87		03/04/20 23:20	100-42-5	
Tetrachloroethene	**1.3 U**	ug/m3	1.3	0.59	1.87		03/04/20 23:20	127-18-4	
Toluene	**3.3**	ug/m3	1.4	0.66	1.87		03/04/20 23:20	108-88-3	
Trichloroethene	**1.0 U**	ug/m3	1.0	0.47	1.87		03/04/20 23:20	79-01-6	
Trichlorofluoromethane	**1.3J**	ug/m3	2.1	0.68	1.87		03/04/20 23:20	75-69-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Sample: A10-035 **Lab ID: 30352629008** Collected: 02/28/20 11:06 Received: 03/03/20 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Vinyl chloride	**0.49 U**	ug/m3	0.49	0.24	1.87		03/04/20 23:20	75-01-4	
cis-1,2-Dichloroethene	**1.5 U**	ug/m3	1.5	0.41	1.87		03/04/20 23:20	156-59-2	
cis-1,3-Dichloropropene	**1.7 U**	ug/m3	1.7	0.57	1.87		03/04/20 23:20	10061-01-5	
m&p-Xylene	**3.3 U**	ug/m3	3.3	1.3	1.87		03/04/20 23:20	179601-23-1	
o-Xylene	**1.7 U**	ug/m3	1.7	0.64	1.87		03/04/20 23:20	95-47-6	
trans-1,2-Dichloroethene	**1.5 U**	ug/m3	1.5	0.53	1.87		03/04/20 23:20	156-60-5	
trans-1,3-Dichloropropene	**1.7 U**	ug/m3	1.7	0.82	1.87		03/04/20 23:20	10061-02-6	

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Sample: A10-038 **Lab ID: 30352629009** Collected: 02/28/20 11:00 Received: 03/03/20 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
1,1,1-Trichloroethane	**2.1 U**	ug/m3	2.1	0.59	1.9		03/04/20 23:08	71-55-6	
1,1,2,2-Tetrachloroethane	**1.3 U**	ug/m3	1.3	0.59	1.9		03/04/20 23:08	79-34-5	
1,1,2-Trichloroethane	**1.1 U**	ug/m3	1.1	0.46	1.9		03/04/20 23:08	79-00-5	
1,1,2-Trichlorotrifluoroethane	**3.0 U**	ug/m3	3.0	1.1	1.9		03/04/20 23:08	76-13-1	
1,1-Dichloroethane	**1.6 U**	ug/m3	1.6	0.43	1.9		03/04/20 23:08	75-34-3	
1,1-Dichloroethene	**1.5 U**	ug/m3	1.5	0.52	1.9		03/04/20 23:08	75-35-4	
1,2,3-Trimethylbenzene	**1.9 U**	ug/m3	1.9	0.77	1.9		03/04/20 23:08	526-73-8	
1,2,4-Trichlorobenzene	**14.3 U**	ug/m3	14.3	7.1	1.9		03/04/20 23:08	120-82-1	
1,2,4-Trimethylbenzene	**1.9 U**	ug/m3	1.9	0.86	1.9		03/04/20 23:08	95-63-6	
1,2-Dibromoethane (EDB)	**1.5 U**	ug/m3	1.5	0.70	1.9		03/04/20 23:08	106-93-4	
1,2-Dichlorobenzene	**2.3 U**	ug/m3	2.3	0.95	1.9		03/04/20 23:08	95-50-1	
1,2-Dichloroethane	**0.78 U**	ug/m3	0.78	0.28	1.9		03/04/20 23:08	107-06-2	
1,2-Dichloroethene (Total)	**3.1 U**	ug/m3	3.1	0.54	1.9		03/04/20 23:08	540-59-0	N2
1,2-Dichloropropane	**1.8 U**	ug/m3	1.8	0.44	1.9		03/04/20 23:08	78-87-5	
1,3,5-Trimethylbenzene	**1.9 U**	ug/m3	1.9	0.76	1.9		03/04/20 23:08	108-67-8	
1,3-Dichlorobenzene	**2.3 U**	ug/m3	2.3	1.1	1.9		03/04/20 23:08	541-73-1	
1,4-Dichlorobenzene	**5.8 U**	ug/m3	5.8	1.9	1.9		03/04/20 23:08	106-46-7	
1,4-Dioxane (p-Dioxane)	**7.0 U**	ug/m3	7.0	1.4	1.9		03/04/20 23:08	123-91-1	
2-Butanone (MEK)	**3.0J**	ug/m3	5.7	0.70	1.9		03/04/20 23:08	78-93-3	
2-Hexanone	**7.9 U**	ug/m3	7.9	1.4	1.9		03/04/20 23:08	591-78-6	
4-Methyl-2-pentanone (MIBK)	**7.9 U**	ug/m3	7.9	0.98	1.9		03/04/20 23:08	108-10-1	
Acetone	**72.3**	ug/m3	4.6	2.3	1.9		03/04/20 23:08	67-64-1	
Benzene	**6.4**	ug/m3	0.62	0.29	1.9		03/04/20 23:08	71-43-2	
Bromodichloromethane	**2.6 U**	ug/m3	2.6	0.70	1.9		03/04/20 23:08	75-27-4	
Bromoform	**10 U**	ug/m3	10	2.7	1.9		03/04/20 23:08	75-25-2	
Bromomethane	**1.5 U**	ug/m3	1.5	0.43	1.9		03/04/20 23:08	74-83-9	
Carbon disulfide	**9.4**	ug/m3	1.2	0.42	1.9		03/04/20 23:08	75-15-0	
Carbon tetrachloride	**2.4 U**	ug/m3	2.4	0.82	1.9		03/04/20 23:08	56-23-5	
Chlorobenzene	**1.8 U**	ug/m3	1.8	0.52	1.9		03/04/20 23:08	108-90-7	
Chloroethane	**1.0 U**	ug/m3	1.0	0.49	1.9		03/04/20 23:08	75-00-3	
Chloroform	**0.94 U**	ug/m3	0.94	0.37	1.9		03/04/20 23:08	67-66-3	
Chloromethane	**0.80 U**	ug/m3	0.80	0.30	1.9		03/04/20 23:08	74-87-3	
Cyclohexane	**8.5**	ug/m3	3.3	0.67	1.9		03/04/20 23:08	110-82-7	
Dibromochloromethane	**3.3 U**	ug/m3	3.3	1.4	1.9		03/04/20 23:08	124-48-1	
Dichlorodifluoromethane	**2.3**	ug/m3	1.9	0.56	1.9		03/04/20 23:08	75-71-8	
Ethylbenzene	**1.7 U**	ug/m3	1.7	0.58	1.9		03/04/20 23:08	100-41-4	
Hexachloro-1,3-butadiene	**10.3 U**	ug/m3	10.3	3.7	1.9		03/04/20 23:08	87-68-3	
Isopropylbenzene (Cumene)	**4.8 U**	ug/m3	4.8	0.72	1.9		03/04/20 23:08	98-82-8	
Methyl-tert-butyl ether	**7.0 U**	ug/m3	7.0	1.3	1.9		03/04/20 23:08	1634-04-4	
Methylene Chloride	**6.7 U**	ug/m3	6.7	2.3	1.9		03/04/20 23:08	75-09-2	
Naphthalene	**5.1 U**	ug/m3	5.1	2.5	1.9		03/04/20 23:08	91-20-3	
Styrene	**1.6 U**	ug/m3	1.6	0.65	1.9		03/04/20 23:08	100-42-5	
Tetrachloroethene	**1.3 U**	ug/m3	1.3	0.60	1.9		03/04/20 23:08	127-18-4	
Toluene	**3.8**	ug/m3	1.5	0.67	1.9		03/04/20 23:08	108-88-3	
Trichloroethene	**1.0 U**	ug/m3	1.0	0.48	1.9		03/04/20 23:08	79-01-6	
Trichlorofluoromethane	**0.93J**	ug/m3	2.2	0.70	1.9		03/04/20 23:08	75-69-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Sample: A10-038 **Lab ID: 30352629009** Collected: 02/28/20 11:00 Received: 03/03/20 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Vinyl chloride	**0.49 U**	ug/m3	0.49	0.24	1.9		03/04/20 23:08	75-01-4	
cis-1,2-Dichloroethene	**1.5 U**	ug/m3	1.5	0.42	1.9		03/04/20 23:08	156-59-2	
cis-1,3-Dichloropropene	**1.8 U**	ug/m3	1.8	0.58	1.9		03/04/20 23:08	10061-01-5	
m&p-Xylene	**3.4 U**	ug/m3	3.4	1.3	1.9		03/04/20 23:08	179601-23-1	
o-Xylene	**1.7 U**	ug/m3	1.7	0.65	1.9		03/04/20 23:08	95-47-6	
trans-1,2-Dichloroethene	**1.5 U**	ug/m3	1.5	0.54	1.9		03/04/20 23:08	156-60-5	
trans-1,3-Dichloropropene	**1.8 U**	ug/m3	1.8	0.84	1.9		03/04/20 23:08	10061-02-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
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ANALYTICAL RESULTS

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Sample: Trip Blank **Lab ID: 30352629010** Collected: 02/28/20 00:01 Received: 03/03/20 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
1,1,1-Trichloroethane	**1.1 U**	ug/m3	1.1	0.31	1		03/04/20 16:01	71-55-6	
1,1,2,2-Tetrachloroethane	**0.70 U**	ug/m3	0.70	0.31	1		03/04/20 16:01	79-34-5	
1,1,2-Trichloroethane	**0.56 U**	ug/m3	0.56	0.24	1		03/04/20 16:01	79-00-5	
1,1,2-Trichlorotrifluoroethane	**1.6 U**	ug/m3	1.6	0.56	1		03/04/20 16:01	76-13-1	
1,1-Dichloroethane	**0.82 U**	ug/m3	0.82	0.22	1		03/04/20 16:01	75-34-3	
1,1-Dichloroethene	**0.81 U**	ug/m3	0.81	0.27	1		03/04/20 16:01	75-35-4	
1,2,3-Trimethylbenzene	**1.0 U**	ug/m3	1.0	0.40	1		03/04/20 16:01	526-73-8	
1,2,4-Trichlorobenzene	**7.5 U**	ug/m3	7.5	3.7	1		03/04/20 16:01	120-82-1	
1,2,4-Trimethylbenzene	**1.0 U**	ug/m3	1.0	0.45	1		03/04/20 16:01	95-63-6	
1,2-Dibromoethane (EDB)	**0.78 U**	ug/m3	0.78	0.37	1		03/04/20 16:01	106-93-4	
1,2-Dichlorobenzene	**1.2 U**	ug/m3	1.2	0.50	1		03/04/20 16:01	95-50-1	
1,2-Dichloroethane	**0.41 U**	ug/m3	0.41	0.15	1		03/04/20 16:01	107-06-2	
1,2-Dichloroethene (Total)	**1.6 U**	ug/m3	1.6	0.28	1		03/04/20 16:01	540-59-0	N2
1,2-Dichloropropane	**0.94 U**	ug/m3	0.94	0.23	1		03/04/20 16:01	78-87-5	
1,3,5-Trimethylbenzene	**1.0 U**	ug/m3	1.0	0.40	1		03/04/20 16:01	108-67-8	
1,3-Dichlorobenzene	**1.2 U**	ug/m3	1.2	0.58	1		03/04/20 16:01	541-73-1	
1,4-Dichlorobenzene	**3.1 U**	ug/m3	3.1	1.0	1		03/04/20 16:01	106-46-7	
1,4-Dioxane (p-Dioxane)	**3.7 U**	ug/m3	3.7	0.75	1		03/04/20 16:01	123-91-1	
2-Butanone (MEK)	**3.0 U**	ug/m3	3.0	0.37	1		03/04/20 16:01	78-93-3	
2-Hexanone	**4.2 U**	ug/m3	4.2	0.74	1		03/04/20 16:01	591-78-6	
4-Methyl-2-pentanone (MIBK)	**4.2 U**	ug/m3	4.2	0.52	1		03/04/20 16:01	108-10-1	
Acetone	**2.4 U**	ug/m3	2.4	1.2	1		03/04/20 16:01	67-64-1	
Benzene	**0.32 U**	ug/m3	0.32	0.15	1		03/04/20 16:01	71-43-2	
Bromodichloromethane	**1.4 U**	ug/m3	1.4	0.37	1		03/04/20 16:01	75-27-4	
Bromoform	**5.2 U**	ug/m3	5.2	1.4	1		03/04/20 16:01	75-25-2	
Bromomethane	**0.79 U**	ug/m3	0.79	0.23	1		03/04/20 16:01	74-83-9	
Carbon disulfide	**0.63 U**	ug/m3	0.63	0.22	1		03/04/20 16:01	75-15-0	
Carbon tetrachloride	**1.3 U**	ug/m3	1.3	0.43	1		03/04/20 16:01	56-23-5	
Chlorobenzene	**0.94 U**	ug/m3	0.94	0.28	1		03/04/20 16:01	108-90-7	
Chloroethane	**0.54 U**	ug/m3	0.54	0.26	1		03/04/20 16:01	75-00-3	
Chloroform	**0.50 U**	ug/m3	0.50	0.20	1		03/04/20 16:01	67-66-3	
Chloromethane	**0.42 U**	ug/m3	0.42	0.16	1		03/04/20 16:01	74-87-3	
Cyclohexane	**1.8 U**	ug/m3	1.8	0.35	1		03/04/20 16:01	110-82-7	
Dibromochloromethane	**1.7 U**	ug/m3	1.7	0.72	1		03/04/20 16:01	124-48-1	
Dichlorodifluoromethane	**1.0 U**	ug/m3	1.0	0.29	1		03/04/20 16:01	75-71-8	
Ethylbenzene	**0.88 U**	ug/m3	0.88	0.30	1		03/04/20 16:01	100-41-4	
Hexachloro-1,3-butadiene	**5.4 U**	ug/m3	5.4	2.0	1		03/04/20 16:01	87-68-3	
Isopropylbenzene (Cumene)	**2.5 U**	ug/m3	2.5	0.38	1		03/04/20 16:01	98-82-8	
Methyl-tert-butyl ether	**3.7 U**	ug/m3	3.7	0.66	1		03/04/20 16:01	1634-04-4	
Methylene Chloride	**3.5 U**	ug/m3	3.5	1.2	1		03/04/20 16:01	75-09-2	
Naphthalene	**2.7 U**	ug/m3	2.7	1.3	1		03/04/20 16:01	91-20-3	
Styrene	**0.87 U**	ug/m3	0.87	0.34	1		03/04/20 16:01	100-42-5	
Tetrachloroethene	**0.69 U**	ug/m3	0.69	0.31	1		03/04/20 16:01	127-18-4	
Toluene	**0.77 U**	ug/m3	0.77	0.35	1		03/04/20 16:01	108-88-3	
Trichloroethene	**0.55 U**	ug/m3	0.55	0.25	1		03/04/20 16:01	79-01-6	
Trichlorofluoromethane	**1.1 U**	ug/m3	1.1	0.37	1		03/04/20 16:01	75-69-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Sample: Trip Blank **Lab ID: 30352629010** Collected: 02/28/20 00:01 Received: 03/03/20 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Vinyl chloride	**0.26 U**	ug/m3	0.26	0.13	1		03/04/20 16:01	75-01-4	
cis-1,2-Dichloroethene	**0.81 U**	ug/m3	0.81	0.22	1		03/04/20 16:01	156-59-2	
cis-1,3-Dichloropropene	**0.92 U**	ug/m3	0.92	0.30	1		03/04/20 16:01	10061-01-5	
m&p-Xylene	**1.8 U**	ug/m3	1.8	0.70	1		03/04/20 16:01	179601-23-1	
o-Xylene	**0.88 U**	ug/m3	0.88	0.34	1		03/04/20 16:01	95-47-6	
trans-1,2-Dichloroethene	**0.81 U**	ug/m3	0.81	0.28	1		03/04/20 16:01	156-60-5	
trans-1,3-Dichloropropene	**0.92 U**	ug/m3	0.92	0.44	1		03/04/20 16:01	10061-02-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
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QUALITY CONTROL DATA

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

QC Batch: 663227 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 30352629001, 30352629002, 30352629003, 30352629004, 30352629005, 30352629006, 30352629007, 30352629008

METHOD BLANK: 3558064 Matrix: Air
Associated Lab Samples: 30352629001, 30352629002, 30352629003, 30352629004, 30352629005, 30352629006, 30352629007, 30352629008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	1.1 U	1.1	0.31	03/04/20 09:29	
1,1,2,2-Tetrachloroethane	ug/m3	0.70 U	0.70	0.31	03/04/20 09:29	
1,1,2-Trichloroethane	ug/m3	0.56 U	0.56	0.24	03/04/20 09:29	
1,1,2-Trichlorotrifluoroethane	ug/m3	1.6 U	1.6	0.56	03/04/20 09:29	
1,1-Dichloroethane	ug/m3	0.82 U	0.82	0.22	03/04/20 09:29	
1,1-Dichloroethene	ug/m3	0.81 U	0.81	0.27	03/04/20 09:29	
1,2,3-Trimethylbenzene	ug/m3	1.0 U	1.0	0.40	03/04/20 09:29	
1,2,4-Trichlorobenzene	ug/m3	7.5 U	7.5	3.7	03/04/20 09:29	
1,2,4-Trimethylbenzene	ug/m3	1.0 U	1.0	0.45	03/04/20 09:29	
1,2-Dibromoethane (EDB)	ug/m3	0.78 U	0.78	0.37	03/04/20 09:29	
1,2-Dichlorobenzene	ug/m3	1.2 U	1.2	0.50	03/04/20 09:29	
1,2-Dichloroethane	ug/m3	0.41 U	0.41	0.15	03/04/20 09:29	
1,2-Dichloroethene (Total)	ug/m3	1.6 U	1.6	0.28	03/04/20 09:29	N2
1,2-Dichloropropane	ug/m3	0.94 U	0.94	0.23	03/04/20 09:29	
1,3,5-Trimethylbenzene	ug/m3	1.0 U	1.0	0.40	03/04/20 09:29	
1,3-Dichlorobenzene	ug/m3	1.2 U	1.2	0.58	03/04/20 09:29	
1,4-Dichlorobenzene	ug/m3	3.1 U	3.1	1.0	03/04/20 09:29	
1,4-Dioxane (p-Dioxane)	ug/m3	3.7 U	3.7	0.75	03/04/20 09:29	
2-Butanone (MEK)	ug/m3	3.0 U	3.0	0.37	03/04/20 09:29	
2-Hexanone	ug/m3	4.2 U	4.2	0.74	03/04/20 09:29	
4-Methyl-2-pentanone (MIBK)	ug/m3	4.2 U	4.2	0.52	03/04/20 09:29	
Acetone	ug/m3	2.4 U	2.4	1.2	03/04/20 09:29	
Benzene	ug/m3	0.32 U	0.32	0.15	03/04/20 09:29	
Bromodichloromethane	ug/m3	1.4 U	1.4	0.37	03/04/20 09:29	
Bromoform	ug/m3	5.2 U	5.2	1.4	03/04/20 09:29	
Bromomethane	ug/m3	0.79 U	0.79	0.23	03/04/20 09:29	
Carbon disulfide	ug/m3	0.63 U	0.63	0.22	03/04/20 09:29	
Carbon tetrachloride	ug/m3	1.3 U	1.3	0.43	03/04/20 09:29	
Chlorobenzene	ug/m3	0.94 U	0.94	0.28	03/04/20 09:29	
Chloroethane	ug/m3	0.54 U	0.54	0.26	03/04/20 09:29	
Chloroform	ug/m3	0.50 U	0.50	0.20	03/04/20 09:29	
Chloromethane	ug/m3	0.42 U	0.42	0.16	03/04/20 09:29	
cis-1,2-Dichloroethene	ug/m3	0.81 U	0.81	0.22	03/04/20 09:29	
cis-1,3-Dichloropropene	ug/m3	0.92 U	0.92	0.30	03/04/20 09:29	
Cyclohexane	ug/m3	1.8 U	1.8	0.35	03/04/20 09:29	
Dibromochloromethane	ug/m3	1.7 U	1.7	0.72	03/04/20 09:29	
Dichlorodifluoromethane	ug/m3	1.0 U	1.0	0.29	03/04/20 09:29	
Ethylbenzene	ug/m3	0.88 U	0.88	0.30	03/04/20 09:29	
Hexachloro-1,3-butadiene	ug/m3	5.4 U	5.4	2.0	03/04/20 09:29	
Isopropylbenzene (Cumene)	ug/m3	2.5 U	2.5	0.38	03/04/20 09:29	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

METHOD BLANK: 3558064 Matrix: Air

Associated Lab Samples: 30352629001, 30352629002, 30352629003, 30352629004, 30352629005, 30352629006, 30352629007, 30352629008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
m&p-Xylene	ug/m3	1.8 U	1.8	0.70	03/04/20 09:29	
Methyl-tert-butyl ether	ug/m3	3.7 U	3.7	0.66	03/04/20 09:29	
Methylene Chloride	ug/m3	8.8 U	8.8	1.2	03/04/20 09:29	MN
Naphthalene	ug/m3	2.7 U	2.7	1.3	03/04/20 09:29	
o-Xylene	ug/m3	0.88 U	0.88	0.34	03/04/20 09:29	
Styrene	ug/m3	0.87 U	0.87	0.34	03/04/20 09:29	
Tetrachloroethene	ug/m3	0.69 U	0.69	0.31	03/04/20 09:29	
Toluene	ug/m3	0.77 U	0.77	0.35	03/04/20 09:29	
trans-1,2-Dichloroethene	ug/m3	0.81 U	0.81	0.28	03/04/20 09:29	
trans-1,3-Dichloropropene	ug/m3	0.92 U	0.92	0.44	03/04/20 09:29	
Trichloroethene	ug/m3	0.55 U	0.55	0.25	03/04/20 09:29	
Trichlorofluoromethane	ug/m3	1.1 U	1.1	0.37	03/04/20 09:29	
Vinyl chloride	ug/m3	0.26 U	0.26	0.13	03/04/20 09:29	

LABORATORY CONTROL SAMPLE: 3558065

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	57	58.9	103	70-130	
1,1,2,2-Tetrachloroethane	ug/m3	71.9	77.2	107	70-132	
1,1,2-Trichloroethane	ug/m3	57.3	59.2	103	70-133	
1,1,2-Trichlorotrifluoroethane	ug/m3	80.3	77.7	97	70-130	
1,1-Dichloroethane	ug/m3	42.7	42.0	98	70-130	
1,1-Dichloroethene	ug/m3	41.4	40.3	97	69-137	
1,2,3-Trimethylbenzene	ug/m3	52.4	63.6	121	70-133	
1,2,4-Trichlorobenzene	ug/m3	156	152	97	70-130	SS
1,2,4-Trimethylbenzene	ug/m3	51.5	61.2	119	70-137	
1,2-Dibromoethane (EDB)	ug/m3	80.3	86.7	108	70-138	
1,2-Dichlorobenzene	ug/m3	63.1	72.7	115	70-136	
1,2-Dichloroethane	ug/m3	42.4	40.2	95	70-130	
1,2-Dichloroethene (Total)	ug/m3	83.9	79.7	95	70-130	N2
1,2-Dichloropropane	ug/m3	48.6	48.2	99	70-132	
1,3,5-Trimethylbenzene	ug/m3	51.6	62.2	121	70-136	
1,3-Dichlorobenzene	ug/m3	63.4	70.6	111	70-138	
1,4-Dichlorobenzene	ug/m3	63.4	71.4	113	70-145	
1,4-Dioxane (p-Dioxane)	ug/m3	95.9	122	128	70-141	
2-Butanone (MEK)	ug/m3	31.4	33.6	107	61-130	
2-Hexanone	ug/m3	42.8	44.6	104	70-138	
4-Methyl-2-pentanone (MIBK)	ug/m3	43.6	50.3	115	70-134	
Acetone	ug/m3	126	109	87	59-137	
Benzene	ug/m3	33.5	33.4	100	70-133	
Bromodichloromethane	ug/m3	71.5	80.4	112	70-130	
Bromoform	ug/m3	110	156	142	60-140	CH,L1
Bromomethane	ug/m3	41.3	38.7	94	70-131	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

LABORATORY CONTROL SAMPLE: 3558065

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon disulfide	ug/m3	33.3	35.7	107	70-130	
Carbon tetrachloride	ug/m3	66.2	74.0	112	70-133	
Chlorobenzene	ug/m3	48.3	47.2	98	70-131	
Chloroethane	ug/m3	28.1	30.4	108	70-141	
Chloroform	ug/m3	51.1	49.4	97	70-130	
Chloromethane	ug/m3	21.9	20.9	95	64-137	
cis-1,2-Dichloroethene	ug/m3	41.6	39.1	94	70-132	
cis-1,3-Dichloropropene	ug/m3	47.7	56.2	118	70-138	
Cyclohexane	ug/m3	36.7	38.5	105	70-133	
Dibromochloromethane	ug/m3	90.7	115	127	70-139	
Dichlorodifluoromethane	ug/m3	51.6	49.6	96	70-130	
Ethylbenzene	ug/m3	45.6	52.3	115	70-142	
Hexachloro-1,3-butadiene	ug/m3	112	132	118	70-134	
Isopropylbenzene (Cumene)	ug/m3	52	58.4	112	70-135	
m&p-Xylene	ug/m3	91.2	102	112	70-141	
Methyl-tert-butyl ether	ug/m3	38.4	40.6	106	70-131	
Methylene Chloride	ug/m3	182	194	107	69-130	
Naphthalene	ug/m3	57.7	55.7	97	63-130	
o-Xylene	ug/m3	45.5	51.0	112	70-135	
Styrene	ug/m3	44.9	58.0	129	70-143	
Tetrachloroethene	ug/m3	71	69.1	97	70-136	
Toluene	ug/m3	39.5	43.2	109	70-136	
trans-1,2-Dichloroethene	ug/m3	42.2	40.7	96	70-132	
trans-1,3-Dichloropropene	ug/m3	47.7	62.7	132	70-139	CH
Trichloroethene	ug/m3	56.3	55.1	98	70-132	
Trichlorofluoromethane	ug/m3	59.7	57.5	96	65-136	
Vinyl chloride	ug/m3	26.7	26.4	99	68-141	

SAMPLE DUPLICATE: 3559071

Parameter	Units	10509366001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	<1.7	1.7 U		25	
1,1,2,2-Tetrachloroethane	ug/m3	<1.1	1.1 U		25	
1,1,2-Trichloroethane	ug/m3	<0.86	0.86 U		25	
1,1,2-Trichlorotrifluoroethane	ug/m3	<2.4	2.4 U		25	
1,1-Dichloroethane	ug/m3	<1.3	1.3 U		25	
1,1-Dichloroethene	ug/m3	<1.2	1.2 U		25	
1,2,3-Trimethylbenzene	ug/m3	<1.5	1.5 U		25	
1,2,4-Trichlorobenzene	ug/m3	<11.7	11.7 U		25	
1,2,4-Trimethylbenzene	ug/m3	0.73J	1.5 U		25	
1,2-Dibromoethane (EDB)	ug/m3	<1.2	1.2 U		25	
1,2-Dichlorobenzene	ug/m3	<1.9	1.9 U		25	
1,2-Dichloroethane	ug/m3	<0.64	0.64 U		25	
1,2-Dichloroethene (Total)	ug/m3	23.4	24.2	3	25	N2
1,2-Dichloropropane	ug/m3	<1.5	1.5 U		25	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

SAMPLE DUPLICATE: 3559071

Parameter	Units	10509366001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,3,5-Trimethylbenzene	ug/m3	<1.5	1.5 U		25	
1,3-Dichlorobenzene	ug/m3	<1.9	1.9 U		25	
1,4-Dichlorobenzene	ug/m3	<4.7	4.7 U		25	
1,4-Dioxane (p-Dioxane)	ug/m3	<5.7	5.7 U		25	
2-Butanone (MEK)	ug/m3	<4.6	4.6 U		25	
2-Hexanone	ug/m3	<6.4	6.4 U		25	
4-Methyl-2-pentanone (MIBK)	ug/m3	<6.4	6.4 U		25	
Acetone	ug/m3	12.2	11.7	4	25	
Benzene	ug/m3	0.69	0.80	14	25	
Bromodichloromethane	ug/m3	<2.1	2.1 U		25	
Bromoform	ug/m3	<8.1	8.1 U		25	
Bromomethane	ug/m3	<1.2	1.2 U		25	
Carbon disulfide	ug/m3	<0.98	0.98 U		25	
Carbon tetrachloride	ug/m3	<2.0	2.0 U		25	
Chlorobenzene	ug/m3	<1.5	1.5 U		25	
Chloroethane	ug/m3	<0.83	0.83 U		25	
Chloroform	ug/m3	<0.77	0.77 U		25	
Chloromethane	ug/m3	1.3	1.1	20	25	
cis-1,2-Dichloroethene	ug/m3	<1.2	1.2 U		25	
cis-1,3-Dichloropropene	ug/m3	<1.4	1.4 U		25	
Cyclohexane	ug/m3	0.92J	0.73J		25	
Dibromochloromethane	ug/m3	<2.7	2.7 U		25	
Dichlorodifluoromethane	ug/m3	2.7	2.7	0	25	
Ethylbenzene	ug/m3	0.92J	0.88J		25	
Hexachloro-1,3-butadiene	ug/m3	<8.4	8.4 U		25	
Isopropylbenzene (Cumene)	ug/m3	<3.9	3.9 U		25	
m&p-Xylene	ug/m3	1.1J	1.1J		25	
Methyl-tert-butyl ether	ug/m3	<5.7	5.7 U		25	
Methylene Chloride	ug/m3	3.8J	3.3J		25	
Naphthalene	ug/m3	<4.1	4.1 U		25	
o-Xylene	ug/m3	<1.4	1.4 U		25	
Styrene	ug/m3	<1.3	1.3 U		25	
Tetrachloroethene	ug/m3	0.66J	0.55J		25	
Toluene	ug/m3	3.8	3.8	0	25	
trans-1,2-Dichloroethene	ug/m3	23.4	24.2	3	25	
trans-1,3-Dichloropropene	ug/m3	<1.4	1.4 U		25	
Trichloroethene	ug/m3	<0.85	0.85 U		25	
Trichlorofluoromethane	ug/m3	1.6J	1.2J		25	
Vinyl chloride	ug/m3	<0.40	0.40 U		25	

SAMPLE DUPLICATE: 3559072

Parameter	Units	10509494001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	2.0 U		25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	1.2 U		25	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

SAMPLE DUPLICATE: 3559072

Parameter	Units	10509494001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,2-Trichloroethane	ug/m3	ND	0.98 U		25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	2.8 U		25	
1,1-Dichloroethane	ug/m3	ND	1.5 U		25	
1,1-Dichloroethene	ug/m3	ND	1.4 U		25	
1,2,3-Trimethylbenzene	ug/m3	ND	1.8 U		25	
1,2,4-Trichlorobenzene	ug/m3	ND	13.3 U		25	
1,2,4-Trimethylbenzene	ug/m3	ND	1.8 U		25	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.4 U		25	
1,2-Dichlorobenzene	ug/m3	ND	2.2 U		25	
1,2-Dichloroethane	ug/m3	ND	0.73 U		25	
1,2-Dichloroethene (Total)	ug/m3	ND	2.8 U		25	N2
1,2-Dichloropropane	ug/m3	ND	1.7 U		25	
1,3,5-Trimethylbenzene	ug/m3	ND	1.8 U		25	
1,3-Dichlorobenzene	ug/m3	ND	2.2 U		25	
1,4-Dichlorobenzene	ug/m3	ND	5.4 U		25	
1,4-Dioxane (p-Dioxane)	ug/m3	ND	6.5 U		25	
2-Butanone (MEK)	ug/m3	ND	5.3 U		25	
2-Hexanone	ug/m3	ND	7.4 U		25	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	7.4 U		25	
Acetone	ug/m3	26.6	25.3	5	25	
Benzene	ug/m3	0.82	0.75	9	25	
Bromodichloromethane	ug/m3	ND	2.4 U		25	
Bromoform	ug/m3	ND	9.3 U		25	
Bromomethane	ug/m3	ND	1.4 U		25	
Carbon disulfide	ug/m3	ND	1.1 U		25	
Carbon tetrachloride	ug/m3	ND	2.3 U		25	
Chlorobenzene	ug/m3	ND	1.7 U		25	
Chloroethane	ug/m3	ND	0.95 U		25	
Chloroform	ug/m3	ND	0.88 U		25	
Chloromethane	ug/m3	ND	0.74 U		25	
cis-1,2-Dichloroethene	ug/m3	ND	1.4 U		25	
cis-1,3-Dichloropropene	ug/m3	ND	1.6 U		25	
Cyclohexane	ug/m3	ND	0.81J		25	
Dibromochloromethane	ug/m3	ND	3.1 U		25	
Dichlorodifluoromethane	ug/m3	2.7	2.6	4	25	
Ethylbenzene	ug/m3	ND	1.6 U		25	
Hexachloro-1,3-butadiene	ug/m3	ND	9.6 U		25	
Isopropylbenzene (Cumene)	ug/m3	ND	4.4 U		25	
m&p-Xylene	ug/m3	ND	3.1 U		25	
Methyl-tert-butyl ether	ug/m3	ND	6.5 U		25	
Methylene Chloride	ug/m3	ND	15.6 U		25	
Naphthalene	ug/m3	ND	2.3J		25	
o-Xylene	ug/m3	ND	1.6 U		25	
Styrene	ug/m3	ND	1.5 U		25	
Tetrachloroethene	ug/m3	ND	0.80J		25	
Toluene	ug/m3	ND	1.4 U		25	
trans-1,2-Dichloroethene	ug/m3	ND	1.4 U		25	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

SAMPLE DUPLICATE: 3559072

Parameter	Units	10509494001 Result	Dup Result	RPD	Max RPD	Qualifiers
trans-1,3-Dichloropropene	ug/m3	ND	1.6 U		25	
Trichloroethene	ug/m3	ND	0.97 U		25	
Trichlorofluoromethane	ug/m3	ND	1.3J		25	
Vinyl chloride	ug/m3	ND	0.46 U		25	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

QC Batch: 663264 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 30352629009, 30352629010

METHOD BLANK: 3558203 Matrix: Air
Associated Lab Samples: 30352629009, 30352629010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	0.56 U	0.56	0.15	03/04/20 09:35	
1,1,2,2-Tetrachloroethane	ug/m3	0.35 U	0.35	0.15	03/04/20 09:35	
1,1,2-Trichloroethane	ug/m3	0.28 U	0.28	0.12	03/04/20 09:35	
1,1,2-Trichlorotrifluoroethane	ug/m3	0.78 U	0.78	0.28	03/04/20 09:35	
1,1-Dichloroethane	ug/m3	0.41 U	0.41	0.11	03/04/20 09:35	
1,1-Dichloroethene	ug/m3	0.40 U	0.40	0.14	03/04/20 09:35	
1,2,3-Trimethylbenzene	ug/m3	0.50 U	0.50	0.20	03/04/20 09:35	
1,2,4-Trichlorobenzene	ug/m3	3.8 U	3.8	1.9	03/04/20 09:35	
1,2,4-Trimethylbenzene	ug/m3	0.50 U	0.50	0.23	03/04/20 09:35	
1,2-Dibromoethane (EDB)	ug/m3	0.39 U	0.39	0.18	03/04/20 09:35	
1,2-Dichlorobenzene	ug/m3	0.61 U	0.61	0.25	03/04/20 09:35	
1,2-Dichloroethane	ug/m3	0.21 U	0.21	0.075	03/04/20 09:35	
1,2-Dichloroethene (Total)	ug/m3	0.80 U	0.80	0.14	03/04/20 09:35	N2
1,2-Dichloropropane	ug/m3	0.47 U	0.47	0.12	03/04/20 09:35	
1,3,5-Trimethylbenzene	ug/m3	0.50 U	0.50	0.20	03/04/20 09:35	
1,3-Dichlorobenzene	ug/m3	0.61 U	0.61	0.29	03/04/20 09:35	
1,4-Dichlorobenzene	ug/m3	1.5 U	1.5	0.50	03/04/20 09:35	
1,4-Dioxane (p-Dioxane)	ug/m3	1.8 U	1.8	0.38	03/04/20 09:35	
2-Butanone (MEK)	ug/m3	1.5 U	1.5	0.18	03/04/20 09:35	
2-Hexanone	ug/m3	2.1 U	2.1	0.37	03/04/20 09:35	
4-Methyl-2-pentanone (MIBK)	ug/m3	2.1 U	2.1	0.26	03/04/20 09:35	
Acetone	ug/m3	1.2 U	1.2	0.60	03/04/20 09:35	
Benzene	ug/m3	0.16 U	0.16	0.076	03/04/20 09:35	
Bromodichloromethane	ug/m3	0.68 U	0.68	0.18	03/04/20 09:35	
Bromoform	ug/m3	2.6 U	2.6	0.71	03/04/20 09:35	
Bromomethane	ug/m3	0.39 U	0.39	0.11	03/04/20 09:35	
Carbon disulfide	ug/m3	0.32 U	0.32	0.11	03/04/20 09:35	
Carbon tetrachloride	ug/m3	0.64 U	0.64	0.21	03/04/20 09:35	
Chlorobenzene	ug/m3	0.47 U	0.47	0.14	03/04/20 09:35	
Chloroethane	ug/m3	0.27 U	0.27	0.13	03/04/20 09:35	
Chloroform	ug/m3	0.25 U	0.25	0.098	03/04/20 09:35	
Chloromethane	ug/m3	0.21 U	0.21	0.078	03/04/20 09:35	
cis-1,2-Dichloroethene	ug/m3	0.40 U	0.40	0.11	03/04/20 09:35	
cis-1,3-Dichloropropene	ug/m3	0.46 U	0.46	0.15	03/04/20 09:35	
Cyclohexane	ug/m3	0.88 U	0.88	0.18	03/04/20 09:35	
Dibromochloromethane	ug/m3	0.86 U	0.86	0.36	03/04/20 09:35	
Dichlorodifluoromethane	ug/m3	0.50 U	0.50	0.15	03/04/20 09:35	
Ethylbenzene	ug/m3	0.44 U	0.44	0.15	03/04/20 09:35	
Hexachloro-1,3-butadiene	ug/m3	2.7 U	2.7	0.98	03/04/20 09:35	
Isopropylbenzene (Cumene)	ug/m3	1.2 U	1.2	0.19	03/04/20 09:35	
m&p-Xylene	ug/m3	0.88 U	0.88	0.35	03/04/20 09:35	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

METHOD BLANK: 3558203 Matrix: Air
Associated Lab Samples: 30352629009, 30352629010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Methyl-tert-butyl ether	ug/m3	1.8 U	1.8	0.33	03/04/20 09:35	
Methylene Chloride	ug/m3	1.8 U	1.8	0.60	03/04/20 09:35	
Naphthalene	ug/m3	1.3 U	1.3	0.66	03/04/20 09:35	
o-Xylene	ug/m3	0.44 U	0.44	0.17	03/04/20 09:35	
Styrene	ug/m3	0.43 U	0.43	0.17	03/04/20 09:35	
Tetrachloroethene	ug/m3	0.34 U	0.34	0.16	03/04/20 09:35	
Toluene	ug/m3	0.38 U	0.38	0.18	03/04/20 09:35	
trans-1,2-Dichloroethene	ug/m3	0.40 U	0.40	0.14	03/04/20 09:35	
trans-1,3-Dichloropropene	ug/m3	0.46 U	0.46	0.22	03/04/20 09:35	
Trichloroethene	ug/m3	0.27 U	0.27	0.13	03/04/20 09:35	
Trichlorofluoromethane	ug/m3	0.57 U	0.57	0.18	03/04/20 09:35	
Vinyl chloride	ug/m3	0.13 U	0.13	0.063	03/04/20 09:35	

LABORATORY CONTROL SAMPLE: 3558204

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	57	56.7	99	70-130	
1,1,2,2-Tetrachloroethane	ug/m3	71.9	86.0	120	70-132	
1,1,2-Trichloroethane	ug/m3	57.3	67.7	118	70-133	
1,1,2-Trichlorotrifluoroethane	ug/m3	80.3	77.2	96	70-130	
1,1-Dichloroethane	ug/m3	42.7	42.1	99	70-130	
1,1-Dichloroethene	ug/m3	41.4	39.3	95	69-137	
1,2,3-Trimethylbenzene	ug/m3	52.4	63.1	120	70-133	
1,2,4-Trichlorobenzene	ug/m3	156	169	109	70-130	SS
1,2,4-Trimethylbenzene	ug/m3	51.5	61.2	119	70-137	
1,2-Dibromoethane (EDB)	ug/m3	80.3	95.3	119	70-138	
1,2-Dichlorobenzene	ug/m3	63.1	73.2	116	70-136	
1,2-Dichloroethane	ug/m3	42.4	51.3	121	70-130	
1,2-Dichloroethene (Total)	ug/m3	83.9	95.2	113	70-130	N2
1,2-Dichloropropane	ug/m3	48.6	47.9	99	70-132	
1,3,5-Trimethylbenzene	ug/m3	51.6	61.5	119	70-136	
1,3-Dichlorobenzene	ug/m3	63.4	74.3	117	70-138	
1,4-Dichlorobenzene	ug/m3	63.4	73.2	115	70-145	
1,4-Dioxane (p-Dioxane)	ug/m3	95.9	113	117	70-141	
2-Butanone (MEK)	ug/m3	31.4	37.2	118	61-130	
2-Hexanone	ug/m3	42.8	50.4	118	70-138	
4-Methyl-2-pentanone (MIBK)	ug/m3	43.6	48.1	110	70-134	
Acetone	ug/m3	126	148	117	59-137	
Benzene	ug/m3	33.5	39.8	119	70-133	
Bromodichloromethane	ug/m3	71.5	72.1	101	70-130	
Bromoform	ug/m3	110	125	114	60-140	
Bromomethane	ug/m3	41.3	39.6	96	70-131	
Carbon disulfide	ug/m3	33.3	32.2	97	70-130	
Carbon tetrachloride	ug/m3	66.2	68.8	104	70-133	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

LABORATORY CONTROL SAMPLE: 3558204

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chlorobenzene	ug/m3	48.3	48.3	100	70-131	
Chloroethane	ug/m3	28.1	27.4	97	70-141	
Chloroform	ug/m3	51.1	60.6	119	70-130	
Chloromethane	ug/m3	21.9	23.0	105	64-137	
cis-1,2-Dichloroethene	ug/m3	41.6	44.3	106	70-132	
cis-1,3-Dichloropropene	ug/m3	47.7	52.0	109	70-138	
Cyclohexane	ug/m3	36.7	41.0	112	70-133	
Dibromochloromethane	ug/m3	90.7	93.7	103	70-139	
Dichlorodifluoromethane	ug/m3	51.6	53.8	104	70-130	
Ethylbenzene	ug/m3	45.6	50.7	111	70-142	
Hexachloro-1,3-butadiene	ug/m3	112	125	112	70-134	
Isopropylbenzene (Cumene)	ug/m3	52	64.9	125	70-135	
m&p-Xylene	ug/m3	91.2	104	114	70-141	
Methyl-tert-butyl ether	ug/m3	38.4	39.6	103	70-131	
Methylene Chloride	ug/m3	182	234	129	69-130	
Naphthalene	ug/m3	57.7	63.4	110	63-130	
o-Xylene	ug/m3	45.5	50.6	111	70-135	
Styrene	ug/m3	44.9	53.2	118	70-143	
Tetrachloroethene	ug/m3	71	84.5	119	70-136	
Toluene	ug/m3	39.5	42.5	108	70-136	
trans-1,2-Dichloroethene	ug/m3	42.2	50.8	120	70-132	
trans-1,3-Dichloropropene	ug/m3	47.7	54.7	115	70-139	
Trichloroethene	ug/m3	56.3	66.3	118	70-132	
Trichlorofluoromethane	ug/m3	59.7	56.4	95	65-136	
Vinyl chloride	ug/m3	26.7	31.6	118	68-141	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

SAMPLE QUALIFIERS

Sample: 30352629001
[1] 1,2-Dibromo-3-chloropropane was not detected in this mass spectral analysis.
[2] 1,2,3-Trichlorobenzene was not detected in this mass spectral analysis.

Sample: 30352629002
[1] 1,2-Dibromo-3-chloropropane was not detected in this mass spectral analysis.
[2] 1,2,3-Trichlorobenzene was not detected in this mass spectral analysis.

Sample: 30352629003
[1] 1,2-Dibromo-3-chloropropane was not detected in this mass spectral analysis.
[2] 1,2,3-Trichlorobenzene was not detected in this mass spectral analysis.

Sample: 30352629004
[1] 1,2-Dibromo-3-chloropropane was not detected in this mass spectral analysis.
[2] 1,2,3-Trichlorobenzene was not detected in this mass spectral analysis.

Sample: 30352629005
[1] 1,2-Dibromo-3-chloropropane was not detected in this mass spectral analysis.
[2] 1,2,3-Trichlorobenzene was not detected in this mass spectral analysis.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

SAMPLE QUALIFIERS

Sample: 30352629006
[1] 1,2-Dibromo-3-chloropropane was not detected in this mass spectral analysis.
[2] 1,2,3-Trichlorobenzene was not detected in this mass spectral analysis.

Sample: 30352629007
[1] 1,2-Dibromo-3-chloropropane was not detected in this mass spectral analysis.
[2] 1,2,3-Trichlorobenzene was not detected in this mass spectral analysis.

Sample: 30352629008
[1] 1,2-Dibromo-3-chloropropane was not detected in this mass spectral analysis.
[2] 1,2,3-Trichlorobenzene was not detected in this mass spectral analysis.

ANALYTE QUALIFIERS

CH	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
MN	The reporting limit has been raised in accordance with Minnesota Statutes 4740.2100 Subpart 8. C, D. Reporting Limit Evaluation Rule.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
SS	This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: A10 Soil Gas Sampling
Pace Project No.: 30352629

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30352629001	**A10-040**	TO-15	663227		
30352629002	**Equipment Blank**	TO-15	663227		
30352629003	**A10-034**	TO-15	663227		
30352629004	**A10-024**	TO-15	663227		
30352629005	**A10-Duplicate**	TO-15	663227		
30352629006	**A10-039**	TO-15	663227		
30352629007	**A10-025**	TO-15	663227		
30352629008	**A10-035**	TO-15	663227		
30352629009	**A10-038**	TO-15	663264		
30352629010	**Trip Blank**	TO-15	663264		

Pace Analytical®	Document Name: Pending Log-in Process	Document Revised: 07Feb2019 Page 1 of 1
	Document No.: F-MN-C-097 Rev.05	Issuing Authority: Pace Minnesota Quality Office

SR Tech CMY Date Initiated 3/3/20 PM JDD Client Name ARM GROUP Profile # 32956 Pink shelf ☐ #1 ☐ #2

Issue Type (check all that apply)*	Client Name/Project Name on containers (if no COC)
[X] COC Issue IR PAPER Date/Time Received 3/3/20 945	
EPIC Issue (check one) [ ] Client not in Epic [ ] Profile not in Epic [ ] Add acode [ ] Other	**Resolution** PM/Date

Sample Line Item	~~ILC BP1U~~	BP2U	BP3U	BP3S	BP3N	AG1U	AG1H	AG3S	AGIT	JGFU	JGCU	BJFU	WPDU	VG9M	VG9H	GN	SP5T	DWC
	Check the box to the left to indicate that the container(s) received for line items ____ - ____ are identical to the container(s) documented for line item 1 for this CoC.																	
1	☑																	
2	☑																	
3	☑																	
4	☑																	
5	☑																	
6	☑																	
7	☑																	
8	☑																	
9	☑																	
10	☑																	
11	☑																	
12	☑																	

Comments: FEDEX# 1083 0285 2703, 2714

Logged in by (initial) _____ **Date** _____ **WO** _____

Pace Analytical®
www.pacelabs.com

AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

40105

Page: 1 of 1

Section A Required Client Information:

Company: EnviroAnalytics Group
Address: 1600 Sparrows Point Blvd Suite B2
Sparrows Point MD 21219
Email To: jcalenda@enviroanalyticsgroup.com
Phone: 314-620-3550 Fax:
Requested Due Date/TAT: 48 hr

Section B Required Project Information:

Report To: James Calenda
Copy To: Stewart Kalis
Purchase Order No.:
Project Name: AIR Soil Gas Sampling
Project Number: 2000110-4-4

Section C Invoice Information:

Attention: Laura Sargent
Company Name: EnviroAnalytics Group
Address: 1650 Des Peres Rd, Suite 303 St. Louis, MO 63131
Pace Quote Reference:
Pace Project Manager/Sales Rep. Samantha Bayura
Pace Profile #: 13565 LD

Program: ☐ UST ☐ Superfund ☐ Emissions ☐ Clean Air Act ☐ Voluntary Clean Up ☐ Dry Clean ☐ RCRA ☐ Other____

Location of Sampling by State _____

Reporting Units: ug/m³___ mg/m³___ PPBV___ PPMV___ Other___

Report Level II.___ III.___ IV.___ Other____

'Section D Required Client Information

AIR SAMPLE ID
Sample IDs MUST BE UNIQUE

Valid Media Codes

MEDIA	CODE
Tedlar Bag	TB
1 Liter Summa Can	1LC
6 Liter Summa Can	6LC
Low Volume Puff	LVP
High Volume Puff	HVP
Other	PM10

ITEM #	AIR SAMPLE ID	MEDIA CODE	PID Reading (Client only)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE - END/GRAB DATE	COMPOSITE - END/GRAB TIME	Canister Pressure (Initial Field - in Hg)	Canister Pressure (Final Field - in Hg)	Summa Can Number	Flow Control Number	Method: TO-14	Method: TO-15 Full List VOCs	Pace Lab ID
1	A10-040	1LC		2/28	1020	2/28	1120	-30	-30	3232	0044	X		
2	Equipment Blank	1LC		2/28	1020	2/28	1120	-38	-8	2542	0606	X		
3	A10-034	1LC		2/28	1015	2/28	1115	-29	-4	1000	0892	X		
4	A10-024	1LC		2/28	1014	2/28	1014	-29	-3	2072	1845	X		
5	A10-Duplicate	1LC		2/28	1014	2/28	1014	-30	-2	1338	0033	X		
6	A10-039	1LC		2/28	1011	2/28	1111	-28	-6	2650	1839	X		
7	A10-025	1LC		2/28	1008	2/28	1108	-30	-6	2507	1366	X		
8	A10-035	1LC		2/28	1006	2/28	1106	-28	-6	2554	0045	X		
9	A10-038	1LC		2/28	1000	2/28	1100	-29	-7	2353	1598	X		
10														
11														
12														

Comments :

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Joshua Barra ARM	2/28/20	1330	David Hillegas/Pace	2/28/20	1611
David Hillegas/Pace	2/28/20	1845	[illegible] Pace	3/3/20	945
Data Package Needed					

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joshua Barra

SIGNATURE of SAMPLER: Joshua Barra DATE Signed (MM / DD / YY): 02/28/20

SAMPLE CONDITIONS

Temp in °C	Received on Ice Y/N	Custody Sealed Cooler Y/N	Samples Intact Y/N
—	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

ORIGINAL

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414 Air Technical Phone: 612.607.6386

Pace Analytical®	Document Name: Air Sample Condition Upon Receipt	Document Revised: 19Nov2019 Page 1 of 1
	Document No.: F-MN-A-106-rev.20	Pace Analytical Services - Minneapolis

Air Sample Condition Upon Receipt

Client Name: ARM Group

Project #:

Courier: [X] Fed Ex [ ] UPS [ ] USPS [ ] Client [ ] Pace [ ] SpeeDee [ ] Commercial **See Exception** [ ]

Tracking Number: 1083 0285 2703, 2714

Custody Seal on Cooler/Box Present? [ ] Yes [X] No **Seals Intact?** [ ] Yes [X] No

Packing Material: [ ] Bubble Wrap [ ] Bubble Bags [X] Foam [ ] None [ ] Tin Can [ ] Other: _____ **Temp Blank rec:** [ ] Yes [X] No

Temp. (TO17 and TO13 samples only) (°C): X **Corrected Temp (°C):** X **Thermometer Used:** [ ] G87A9170600254 [ ] G87A9155100842

Temp should be above freezing to 6°C **Correction Factor:** X **Date & Initials of Person Examining Contents:** 3/3/20 CMJ

Type of ice Received [ ] Blue [ ] Wet [X] None

		Comments:
Chain of Custody Present?	[X] Yes [ ] No	1.
Chain of Custody Filled Out?	[X] Yes [ ] No	2.
Chain of Custody Relinquished?	[X] Yes [ ] No	3.
Sampler Name and/or Signature on COC?	[X] Yes [ ] No [ ] N/A	4.
Samples Arrived within Hold Time?	[X] Yes [ ] No	5.
Short Hold Time Analysis (<72 hr)?	[ ] Yes [X] No	6.
Rush Turn Around Time Requested?	[X] Yes [ ] No	7.
Sufficient Volume?	[X] Yes [ ] No	8. A10-040 WAS AT -26
Correct Containers Used? **(Tedlar bags not acceptable container for TO-14, TO-15 or APH)** -Pace Containers Used?	[X] Yes [ ] No [X] Yes [ ] No	9.
Containers Intact? **(visual inspection/no leaks when pressurized)**	[X] Yes [ ] No	10.
Media: (Air Can) Airbag Filter TDT Passive		11. Individually Certified Cans Y (N) (list which samples)
Is sufficient information available to reconcile samples to the COC?	[X] Yes [ ] No	12.
Do cans need to be pressurized? **(DO NOT PRESSURIZE 3C or ASTM 1946!!!)**	[X] Yes [ ] No	13.

Gauge # [ ] 10AIR26 [X] 10AIR34 [ ] 10AIR35 [ ] 4097

Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
A10-040	3232	0044	-26	no	A10-038	2353	0598	-3.5	40
EQUIPTMENT	2542	0606	-4.5	no	TRIP BLANK	3823	———	+1	———
A10-034	1000	0892	-1.5	no	UNUSED	1010	0319	-27	———
A10-024	2072	1848	-1	no					
A10-DUP	1338	0033	-1	no					
A10-039	2650	1839	-3	no					
A10-025	2507	1366	-4	no					
A10-035	2554	0045	-3	no					

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** [ ] Yes [ ] No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: _____ **Date:** _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical™ Media Order # 1040573

Sent to Can Room 02/17/20 10:50 AM NB
Report Printed 2/17/2020 11:12 AM

Ordered By:	Ship To:	Return To:
Contact: Stewart Kabis	**Contact:** Stewart Kabis	**Contact:** Sample Receiving
Company: ARM Group	**Company:** ARM Group	**Lab Name:** PACE - MN
Address: 1600 Sparrows Point Rd	**Address:** 1600 Sparrows Point Rd	**Address:** 1700 Elm Street Ste 200
City, St, ZIP: Sparrows Point, MD, 21219	**City, St, ZIP:** Sparrows Point, MD, 21219	**City, St, ZIP:** Minneapolis, MN, 55414
Phone:	**Phone:**	**Phone:** 612-607-1700

Initiator: Nathan Boberg **PM:** Jared Dickinson **Profile Number:** 13565 line 10
Proj. Description: Sparrows Point site **Quote Number:** **Shipping Method:** FedEx
Required By: 2/21/2020 PM **Expected Return Date:** 3/6/2020 **Tracking #:**

Return Shipping Labels	***CoC's***	***Bottle Labels***	***Bottles***
☐ No Shipper Number	☒ Blank # 2	☐ Blank	☐ Boxed Cases
☒ With Shipper Number	☐ Preprinted	☐ Pre-Printed - With Sample IDs	☐ Individually Wrapped
		☐ Pre-Printed - No Sample IDs	☐ Grouped By Sample ID/Matrix

Miscellaneous

☒ Sampling Instructions	☐ Coolers	☐ Short Hold/Rush Stickers	☐ Trip Blank
☐ Custody Seal	☐ Extra Bubble Wrap	☐ DI Water	
☐ Temperature Blanks	☐ 10 mL Cut-Off Syringes		

Notes: Ship for arrival before 2/21, if possible.
IR (Sam Bayura)
{{CUSTOM REPORTING LIST}}

Qty	Method	Media Specification	Certification Level	Notes
1	Other Misc.	Fitting/Ferrule/Tubing/Filter		2 ft (supply with two sets of fittings/ferrules
10	TO-15	1 L Canister	Low Level (0.1 - 0.2 ppbv)	batch cert
10	Canister Attachments	Flow Controller with Gauge (specify setting)		1 hour
1	Canister Attachments	Tee Fitting for Duplicate		
9	Other Misc.	Fitting/Ferrule/Tubing/Filter		
1	TO-15	1 L Canister		Trip Blank - Fill with N2

Hazard Shipping Placard In Place:

*Sample receiving hours are Monday through Friday 8:00 am to 6:00 pm and Saturday from 9:00 am to 12:00 pm unless special arrangements are made with you project manager.
*Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.
*Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage and disposal.
*Payment term are net 30 days.
*Please include the proposal number on the chain of custody to insure proper billing

2/19/20