Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

January 03, 2024

David Cochran
City of Bristol VA
2655 Valley Dr
Bristol, VA 24201

RE: Project: City of Bristol
Pace Project No.: 92705466

Dear David Cochran:

Enclosed are the analytical results for sample(s) received by the laboratory on December 22, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace National - Mt. Juliet

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

Sincerely,

Eben D. Buchanan, Jr.

Eben Buchanan
eben.buchanan@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Karen Culbertson, City of Bristol VA
Jonathan Hayes
Logan Howard, City of Bristol VA
Jennifer Robb, City of Bristol VA

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CERTIFICATIONS

Project: City of Bristol
Pace Project No.: 92705466

Pace Analytical Services National
12065 Lebanon Road, Mt. Juliet, TN 37122
Alabama Certification #: 40660
Alaska Certification 17-026
Arizona Certification #: AZ0612
Arkansas Certification #: 88-0469
California Certification #: 2932
Canada Certification #: 1461.01
Colorado Certification #: TN00003
Connecticut Certification #: PH-0197
DOD Certification: #1461.01
EPA# TN00003
Florida Certification #: E87487
Georgia DW Certification #: 923
Georgia Certification: NELAP
Idaho Certification #: TN00003
Illinois Certification #: 200008
Indiana Certification #: C-TN-01
Iowa Certification #: 364
Kansas Certification #: E-10277
Kentucky UST Certification #: 16
Kentucky Certification #: 90010
Louisiana Certification #: AI30792
Louisiana DW Certification #: LA180010
Maine Certification #: TN0002
Maryland Certification #: 324
Massachusetts Certification #: M-TN003
Michigan Certification #: 9958
Minnesota Certification #: 047-999-395
Mississippi Certification #: TN00003
Missouri Certification #: 340
Montana Certification #: CERT0086
Nebraska Certification #: NE-OS-15-05
Nevada Certification #: TN-03-2002-34
New Hampshire Certification #: 2975
New Jersey Certification #: TN002
New Mexico DW Certification
New York Certification #: 11742
North Carolina Aquatic Toxicity Certification #: 41
North Carolina Drinking Water Certification #: 21704
North Carolina Environmental Certificate #: 375
North Dakota Certification #: R-140
Ohio VAP Certification #: CL0069
Oklahoma Certification #: 9915
Oregon Certification #: TN200002
Pennsylvania Certification #: 68-02979
Rhode Island Certification #: LAO00356
South Carolina Certification #: 84004
South Dakota Certification
Tennessee DW/Chem/Micro Certification #: 2006
Texas Certification #: T 104704245-17-14
Texas Mold Certification #: LAB0152
USDA Soil Permit #: P330-15-00234
Utah Certification #: TN00003
Virginia Certification #: VT2006
Vermont Dept. of Health: ID# VT-2006
Virginia Certification #: 460132
Washington Certification #: C847
West Virginia Certification #: 233
Wisconsin Certification #: 998093910
Wyoming UST Certification #: via A2LA 2926.01
A2LA-ISO 17025 Certification #: 1461.01
A2LA-ISO 17025 Certification #: 1461.02
AIHA-LAP/LLC EMLAP Certification #:100789

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SAMPLE SUMMARY

Project: City of Bristol
Pace Project No.: 92705466

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92705466001	**24-hour**	Air	12/20/23 13:54	12/22/23 09:15

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SAMPLE ANALYTE COUNT

Project: City of Bristol
Pace Project No.: 92705466

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92705466001	**24-hour**	TO-15	GH	71	PAN

PAN = Pace National - Mt. Juliet

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: City of Bristol
Pace Project No.: 92705466

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92705466001	**24-hour**					
TO-15	Acetone	5.16	ug/m3	2.97	12/29/23 17:22	
TO-15	Benzene	3.16	ug/m3	0.639	12/29/23 17:22	
TO-15	Carbon tetrachloride	0.482J	ug/m3	1.26	12/29/23 17:22	J
TO-15	Chloromethane	1.05	ug/m3	0.413	12/29/23 17:22	
TO-15	Ethanol	9.37	ug/m3	4.71	12/29/23 17:22	B
TO-15	Ethylbenzene	0.685J	ug/m3	0.867	12/29/23 17:22	J
TO-15	Trichlorofluoromethane	1.19	ug/m3	1.12	12/29/23 17:22	
TO-15	Dichlorodifluoromethane	2.12	ug/m3	0.989	12/29/23 17:22	
TO-15	n-Heptane	0.438J	ug/m3	0.818	12/29/23 17:22	J
TO-15	Methylene Chloride	0.830	ug/m3	0.694	12/29/23 17:22	B
TO-15	2-Butanone (MEK)	1.13J	ug/m3	3.69	12/29/23 17:22	J
TO-15	2-Propanol	3.32	ug/m3	3.07	12/29/23 17:22	
TO-15	Styrene	0.419J	ug/m3	0.851	12/29/23 17:22	J
TO-15	Toluene	1.80J	ug/m3	1.88	12/29/23 17:22	J
TO-15	m&p-Xylene	1.22J	ug/m3	1.73	12/29/23 17:22	J
TO-15	Xylene (Total)	1.22J	ug/m3	2.61	12/29/23 17:22	J

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PROJECT NARRATIVE

Project: City of Bristol
Pace Project No.: 92705466

Method: **TO-15**
Description: VOA (MS) TO-15
Client: City of Bristol VA
Date: January 03, 2024

General Information:
1 sample was analyzed for TO-15 by Pace National Mt. Juliet. 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.

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

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.

QC Batch: 2198203

B: Analyte was detected in the associated method blank.

- R4018948-3 (Lab ID: R4018948-3)
  - Ethanol
  - Methylene Chloride

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

Additional Comments:

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

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ANALYTICAL RESULTS

Project: City of Bristol
Pace Project No.: 92705466

Sample: 24-hour **Lab ID: 92705466001** Collected: 12/20/23 13:54 Received: 12/22/23 09:15 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
VOA (MS) TO-15	Analytical Method: TO-15 Preparation Method: TO-15 Pace National - Mt. Juliet								
Acetone	**5.16**	ug/m3	2.97	1.39	1	12/29/23 17:22	12/29/23 17:22	67-64-1	
Acetonitrile	ND	ug/m3	8.39	0.395	1	12/29/23 17:22	12/29/23 17:22	75-05-8	
Allyl chloride	ND	ug/m3	0.626	0.357	1	12/29/23 17:22	12/29/23 17:22	107-05-1	
Benzene	**3.16**	ug/m3	0.639	0.228	1	12/29/23 17:22	12/29/23 17:22	71-43-2	
Benzyl chloride	ND	ug/m3	1.04	0.311	1	12/29/23 17:22	12/29/23 17:22	100-44-7	
Bromodichloromethane	ND	ug/m3	1.34	0.471	1	12/29/23 17:22	12/29/23 17:22	75-27-4	
Bromoform	ND	ug/m3	6.21	0.757	1	12/29/23 17:22	12/29/23 17:22	75-25-2	
Bromomethane	ND	ug/m3	0.776	0.381	1	12/29/23 17:22	12/29/23 17:22	74-83-9	
1,3-Butadiene	ND	ug/m3	4.43	0.230	1	12/29/23 17:22	12/29/23 17:22	106-99-0	
Carbon disulfide	ND	ug/m3	0.622	0.317	1	12/29/23 17:22	12/29/23 17:22	75-15-0	
Carbon tetrachloride	**0.482J**	ug/m3	1.26	0.461	1	12/29/23 17:22	12/29/23 17:22	56-23-5	J
Chlorobenzene	ND	ug/m3	0.924	0.385	1	12/29/23 17:22	12/29/23 17:22	108-90-7	
Chloroethane	ND	ug/m3	0.528	0.263	1	12/29/23 17:22	12/29/23 17:22	75-00-3	
Chloroform	ND	ug/m3	0.973	0.349	1	12/29/23 17:22	12/29/23 17:22	67-66-3	
Chloromethane	**1.05**	ug/m3	0.413	0.213	1	12/29/23 17:22	12/29/23 17:22	74-87-3	
2-Chlorotoluene	ND	ug/m3	1.03	0.427	1	12/29/23 17:22	12/29/23 17:22	95-49-8	
Cyclohexane	ND	ug/m3	0.689	0.259	1	12/29/23 17:22	12/29/23 17:22	110-82-7	
Dibromochloromethane	ND	ug/m3	1.70	0.618	1	12/29/23 17:22	12/29/23 17:22	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.54	0.554	1	12/29/23 17:22	12/29/23 17:22	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.20	0.770	1	12/29/23 17:22	12/29/23 17:22	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.20	1.09	1	12/29/23 17:22	12/29/23 17:22	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.20	0.335	1	12/29/23 17:22	12/29/23 17:22	106-46-7	
1,2-Dichloroethane	ND	ug/m3	0.810	0.283	1	12/29/23 17:22	12/29/23 17:22	107-06-2	
1,1-Dichloroethane	ND	ug/m3	0.802	0.290	1	12/29/23 17:22	12/29/23 17:22	75-34-3	
1,1-Dichloroethene	ND	ug/m3	0.793	0.302	1	12/29/23 17:22	12/29/23 17:22	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.793	0.311	1	12/29/23 17:22	12/29/23 17:22	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.793	0.267	1	12/29/23 17:22	12/29/23 17:22	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.924	0.351	1	12/29/23 17:22	12/29/23 17:22	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.908	0.313	1	12/29/23 17:22	12/29/23 17:22	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.908	0.331	1	12/29/23 17:22	12/29/23 17:22	10061-02-6	
1,4-Dioxane (p-Dioxane)	ND	ug/m3	2.27	0.300	1	12/29/23 17:22	12/29/23 17:22	123-91-1	
Ethanol	**9.37**	ug/m3	4.71	0.500	1	12/29/23 17:22	12/29/23 17:22	64-17-5	B
Ethylbenzene	**0.685J**	ug/m3	0.867	0.362	1	12/29/23 17:22	12/29/23 17:22	100-41-4	J
Ethyl acetate	ND	ug/m3	2.27	0.360	1	12/29/23 17:22	12/29/23 17:22	141-78-6	
4-Ethyltoluene	ND	ug/m3	0.982	0.384	1	12/29/23 17:22	12/29/23 17:22	622-96-8	
Trichlorofluoromethane	**1.19**	ug/m3	1.12	0.460	1	12/29/23 17:22	12/29/23 17:22	75-69-4	
Dichlorodifluoromethane	**2.12**	ug/m3	0.989	0.678	1	12/29/23 17:22	12/29/23 17:22	75-71-8	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.53	0.608	1	12/29/23 17:22	12/29/23 17:22	76-13-1	
Dichlorotetrafluoroethane	ND	ug/m3	1.40	0.622	1	12/29/23 17:22	12/29/23 17:22	76-14-2	
n-Heptane	**0.438J**	ug/m3	0.818	0.425	1	12/29/23 17:22	12/29/23 17:22	142-82-5	J
Hexachloro-1,3-butadiene	ND	ug/m3	6.73	1.12	1	12/29/23 17:22	12/29/23 17:22	87-68-3	
n-Hexane	ND	ug/m3	2.22	0.726	1	12/29/23 17:22	12/29/23 17:22	110-54-3	
Isopropylbenzene (Cumene)	ND	ug/m3	0.983	0.382	1	12/29/23 17:22	12/29/23 17:22	98-82-8	
Methylene Chloride	**0.830**	ug/m3	0.694	0.340	1	12/29/23 17:22	12/29/23 17:22	75-09-2	B
2-Hexanone	ND	ug/m3	5.11	0.544	1	12/29/23 17:22	12/29/23 17:22	591-78-6	

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ANALYTICAL RESULTS

Project: City of Bristol
Pace Project No.: 92705466

Sample: 24-hour **Lab ID: 92705466001** Collected: 12/20/23 13:54 Received: 12/22/23 09:15 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
VOA (MS) TO-15	Analytical Method: TO-15 Preparation Method: TO-15 Pace National - Mt. Juliet								
2-Butanone (MEK)	**1.13J**	ug/m3	3.69	0.240	1	12/29/23 17:22	12/29/23 17:22	78-93-3	J
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	5.12	0.313	1	12/29/23 17:22	12/29/23 17:22	108-10-1	
Methyl methacrylate	ND	ug/m3	0.819	0.359	1	12/29/23 17:22	12/29/23 17:22	80-62-6	
Methyl-tert-butyl ether	ND	ug/m3	0.721	0.233	1	12/29/23 17:22	12/29/23 17:22	1634-04-4	
Naphthalene	ND	ug/m3	3.30	1.83	1	12/29/23 17:22	12/29/23 17:22	91-20-3	
2-Propanol	**3.32**	ug/m3	3.07	0.649	1	12/29/23 17:22	12/29/23 17:22	67-63-0	
Propylene	ND	ug/m3	2.15	0.160	1	12/29/23 17:22	12/29/23 17:22	115-07-1	
Styrene	**0.419J**	ug/m3	0.851	0.335	1	12/29/23 17:22	12/29/23 17:22	100-42-5	J
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.37	0.511	1	12/29/23 17:22	12/29/23 17:22	79-34-5	
Tetrachloroethene	ND	ug/m3	1.36	0.553	1	12/29/23 17:22	12/29/23 17:22	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.590	0.216	1	12/29/23 17:22	12/29/23 17:22	109-99-9	
Toluene	**1.80J**	ug/m3	1.88	0.328	1	12/29/23 17:22	12/29/23 17:22	108-88-3	J
1,2,4-Trichlorobenzene	ND	ug/m3	4.66	1.10	1	12/29/23 17:22	12/29/23 17:22	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.09	0.400	1	12/29/23 17:22	12/29/23 17:22	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	1.09	0.422	1	12/29/23 17:22	12/29/23 17:22	79-00-5	
Trichloroethene	ND	ug/m3	1.07	0.364	1	12/29/23 17:22	12/29/23 17:22	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/m3	0.982	0.375	1	12/29/23 17:22	12/29/23 17:22	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	0.982	0.382	1	12/29/23 17:22	12/29/23 17:22	108-67-8	
2,2,4-Trimethylpentane	ND	ug/m3	0.934	0.621	1	12/29/23 17:22	12/29/23 17:22	540-84-1	
Vinyl chloride	ND	ug/m3	0.511	0.243	1	12/29/23 17:22	12/29/23 17:22	75-01-4	
Vinyl bromide	ND	ug/m3	0.875	0.373	1	12/29/23 17:22	12/29/23 17:22	593-60-2	
Vinyl acetate	ND	ug/m3	2.22	0.408	1	12/29/23 17:22	12/29/23 17:22	108-05-4	
m&p-Xylene	**1.22J**	ug/m3	1.73	0.585	1	12/29/23 17:22	12/29/23 17:22	179601-23-1	J
o-Xylene	ND	ug/m3	0.867	0.359	1	12/29/23 17:22	12/29/23 17:22	95-47-6	
Xylene (Total)	**1.22J**	ug/m3	2.61	0.586	1	12/29/23 17:22	12/29/23 17:22	1330-20-7	J
Surrogates									
4-Bromofluorobenzene (S)	97.8	%	60.0-140		1	12/29/23 17:22	12/29/23 17:22	460-00-4	

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QUALITY CONTROL DATA

Project: City of Bristol
Pace Project No.: 92705466

QC Batch: 2198203
QC Batch Method: TO-15
Analysis Method: TO-15
Analysis Description: VOA (MS) TO-15
Laboratory: Pace National - Mt. Juliet

Associated Lab Samples: 92705466001

METHOD BLANK: R4018948-3 Matrix: Air
Associated Lab Samples: 92705466001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acetone	ug/m3	ND	2.97	1.39	12/29/23 13:57	
Acetonitrile	ug/m3	ND	8.39	0.395	12/29/23 13:57	
Allyl chloride	ug/m3	ND	0.626	0.357	12/29/23 13:57	
Benzene	ug/m3	ND	0.639	0.228	12/29/23 13:57	
Benzyl chloride	ug/m3	ND	1.04	0.311	12/29/23 13:57	
Bromodichloromethane	ug/m3	ND	1.34	0.471	12/29/23 13:57	
Bromoform	ug/m3	ND	6.21	0.757	12/29/23 13:57	
Bromomethane	ug/m3	ND	0.776	0.381	12/29/23 13:57	
1,3-Butadiene	ug/m3	ND	4.43	0.230	12/29/23 13:57	
Carbon disulfide	ug/m3	0.510J	0.622	0.317	12/29/23 13:57	J
Carbon tetrachloride	ug/m3	ND	1.26	0.461	12/29/23 13:57	
Chlorobenzene	ug/m3	ND	0.924	0.385	12/29/23 13:57	
Chloroethane	ug/m3	ND	0.528	0.263	12/29/23 13:57	
Chloroform	ug/m3	ND	0.973	0.349	12/29/23 13:57	
Chloromethane	ug/m3	ND	0.413	0.213	12/29/23 13:57	
2-Chlorotoluene	ug/m3	ND	1.03	0.427	12/29/23 13:57	
Cyclohexane	ug/m3	ND	0.689	0.259	12/29/23 13:57	
Dibromochloromethane	ug/m3	ND	1.70	0.618	12/29/23 13:57	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.54	0.554	12/29/23 13:57	
1,2-Dichlorobenzene	ug/m3	ND	1.20	0.770	12/29/23 13:57	
1,3-Dichlorobenzene	ug/m3	ND	1.20	1.09	12/29/23 13:57	
1,4-Dichlorobenzene	ug/m3	ND	1.20	0.335	12/29/23 13:57	
1,2-Dichloroethane	ug/m3	ND	0.810	0.283	12/29/23 13:57	
1,1-Dichloroethane	ug/m3	ND	0.802	0.290	12/29/23 13:57	
1,1-Dichloroethene	ug/m3	ND	0.793	0.302	12/29/23 13:57	
cis-1,2-Dichloroethene	ug/m3	ND	0.793	0.311	12/29/23 13:57	
trans-1,2-Dichloroethene	ug/m3	ND	0.793	0.267	12/29/23 13:57	
1,2-Dichloropropane	ug/m3	ND	0.924	0.351	12/29/23 13:57	
cis-1,3-Dichloropropene	ug/m3	ND	0.908	0.313	12/29/23 13:57	
trans-1,3-Dichloropropene	ug/m3	ND	0.908	0.331	12/29/23 13:57	
1,4-Dioxane (p-Dioxane)	ug/m3	ND	2.27	0.300	12/29/23 13:57	
Ethanol	ug/m3	1.43J	4.71	0.500	12/29/23 13:57	J
Ethylbenzene	ug/m3	ND	0.867	0.362	12/29/23 13:57	
Ethyl acetate	ug/m3	ND	2.27	0.360	12/29/23 13:57	
4-Ethyltoluene	ug/m3	ND	0.982	0.384	12/29/23 13:57	
Trichlorofluoromethane	ug/m3	ND	1.12	0.460	12/29/23 13:57	
Dichlorodifluoromethane	ug/m3	ND	0.989	0.678	12/29/23 13:57	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.53	0.608	12/29/23 13:57	
Dichlorotetrafluoroethane	ug/m3	ND	1.40	0.622	12/29/23 13:57	
n-Heptane	ug/m3	ND	0.818	0.425	12/29/23 13:57	

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REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: City of Bristol
Pace Project No.: 92705466

METHOD BLANK: R4018948-3 Matrix: Air
Associated Lab Samples: 92705466001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/m3	ND	6.73	1.12	12/29/23 13:57	
n-Hexane	ug/m3	ND	2.22	0.726	12/29/23 13:57	
Isopropylbenzene (Cumene)	ug/m3	ND	0.983	0.382	12/29/23 13:57	
Methylene Chloride	ug/m3	0.406J	0.694	0.340	12/29/23 13:57	J
2-Hexanone	ug/m3	ND	5.11	0.544	12/29/23 13:57	
2-Butanone (MEK)	ug/m3	ND	3.69	0.240	12/29/23 13:57	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	5.12	0.313	12/29/23 13:57	
Methyl methacrylate	ug/m3	ND	0.819	0.359	12/29/23 13:57	
Methyl-tert-butyl ether	ug/m3	ND	0.721	0.233	12/29/23 13:57	
Naphthalene	ug/m3	ND	3.30	1.83	12/29/23 13:57	
2-Propanol	ug/m3	ND	3.07	0.649	12/29/23 13:57	
Propylene	ug/m3	ND	2.15	0.160	12/29/23 13:57	
Styrene	ug/m3	ND	0.851	0.335	12/29/23 13:57	
1,1,2,2-Tetrachloroethane	ug/m3	ND	1.37	0.511	12/29/23 13:57	
Tetrachloroethene	ug/m3	ND	1.36	0.553	12/29/23 13:57	
Tetrahydrofuran	ug/m3	ND	0.590	0.216	12/29/23 13:57	
Toluene	ug/m3	ND	1.88	0.328	12/29/23 13:57	
1,2,4-Trichlorobenzene	ug/m3	ND	4.66	1.10	12/29/23 13:57	
1,1,1-Trichloroethane	ug/m3	ND	1.09	0.400	12/29/23 13:57	
1,1,2-Trichloroethane	ug/m3	ND	1.09	0.422	12/29/23 13:57	
Trichloroethene	ug/m3	ND	1.07	0.364	12/29/23 13:57	
1,2,4-Trimethylbenzene	ug/m3	ND	0.982	0.375	12/29/23 13:57	
1,3,5-Trimethylbenzene	ug/m3	ND	0.982	0.382	12/29/23 13:57	
2,2,4-Trimethylpentane	ug/m3	ND	0.934	0.621	12/29/23 13:57	
Vinyl chloride	ug/m3	ND	0.511	0.243	12/29/23 13:57	
Vinyl bromide	ug/m3	ND	0.875	0.373	12/29/23 13:57	
Vinyl acetate	ug/m3	ND	2.22	0.408	12/29/23 13:57	
m&p-Xylene	ug/m3	ND	1.73	0.585	12/29/23 13:57	
o-Xylene	ug/m3	ND	0.867	0.359	12/29/23 13:57	
Xylene (Total)	ug/m3	ND	2.61	0.586	12/29/23 13:57	
4-Bromofluorobenzene (S)	%	97.1	60.0-140		12/29/23 13:57	

LABORATORY CONTROL SAMPLE & LCSD: R4018948-1 R4018948-2

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Acetone	ug/m3	8.91	8.82	8.67	98.9	97.3	70.0-130	1.63	25	
Acetonitrile	ug/m3	31.6	34.8	34.4	110	109	70.0-130	0.971	25	
Allyl chloride	ug/m3	11.7	11.4	11.4	97.3	96.8	70.0-130	0.549	25	
Benzene	ug/m3	12.0	12.6	12.4	106	103	70.0-130	2.04	25	
Benzyl chloride	ug/m3	19.5	20.2	19.4	104	99.7	70.0-152	3.93	25	
Bromodichloromethane	ug/m3	25.2	26.4	26.0	105	103	70.0-130	1.79	25	
Bromoform	ug/m3	38.8	39.4	39.3	102	101	70.0-130	0.263	25	
Bromomethane	ug/m3	14.6	14.8	14.8	102	102	70.0-130	0.262	25	
1,3-Butadiene	ug/m3	8.30	8.89	9.03	107	109	70.0-130	1.48	25	

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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: City of Bristol
Pace Project No.: 92705466

LABORATORY CONTROL SAMPLE & LCSD: R4018948-1 R4018948-2

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Carbon disulfide	ug/m3	11.7	11.7	11.5	100	98.7	70.0-130	1.61	25	
Carbon tetrachloride	ug/m3	23.6	24.4	24.0	103	102	70.0-130	1.82	25	
Chlorobenzene	ug/m3	17.3	17.9	17.7	103	102	70.0-130	1.04	25	
Chloroethane	ug/m3	9.89	10.6	10.6	107	107	70.0-130	0.00	25	
Chloroform	ug/m3	18.3	18.9	18.9	104	103	70.0-130	0.257	25	
Chloromethane	ug/m3	7.75	7.91	7.89	102	102	70.0-130	0.261	25	
2-Chlorotoluene	ug/m3	19.3	20.3	20.4	105	106	70.0-130	0.760	25	
Cyclohexane	ug/m3	12.9	13.3	13.3	103	103	70.0-130	0.00	25	
Dibromochloromethane	ug/m3	31.9	33.2	32.8	104	103	70.0-130	1.03	25	
1,2-Dibromoethane (EDB)	ug/m3	28.8	30.1	29.6	105	103	70.0-130	1.80	25	
1,2-Dichlorobenzene	ug/m3	22.5	22.4	21.9	99.5	97.1	70.0-130	2.44	25	
1,3-Dichlorobenzene	ug/m3	22.5	22.5	21.9	99.7	97.3	70.0-130	2.44	25	
1,4-Dichlorobenzene	ug/m3	22.5	22.5	22.2	99.7	98.4	70.0-130	1.35	25	
1,2-Dichloroethane	ug/m3	15.2	15.7	15.5	103	102	70.0-130	1.56	25	
1,1-Dichloroethane	ug/m3	15.0	15.7	15.5	104	103	70.0-130	1.03	25	
1,1-Dichloroethene	ug/m3	14.9	15.3	15.4	103	103	70.0-130	0.517	25	
cis-1,2-Dichloroethene	ug/m3	14.9	15.5	15.3	105	103	70.0-130	1.54	25	
trans-1,2-Dichloroethene	ug/m3	14.9	15.5	15.4	104	103	70.0-130	0.770	25	
1,2-Dichloropropane	ug/m3	17.3	18.2	17.7	105	102	70.0-130	2.58	25	
cis-1,3-Dichloropropene	ug/m3	17.0	17.8	17.6	105	103	70.0-130	1.28	25	
trans-1,3-Dichloropropene	ug/m3	17.0	17.9	17.5	105	103	70.0-130	2.56	25	
1,4-Dioxane (p-Dioxane)	ug/m3	13.5	14.0	13.6	103	101	70.0-140	2.61	25	
Ethanol	ug/m3	7.07	7.13	6.94	101	98.1	55.0-148	2.68	25	
Ethylbenzene	ug/m3	16.3	17.1	16.9	105	104	70.0-130	1.28	25	
Ethyl acetate	ug/m3	13.5	13.5	13.1	100	96.8	70.0-130	3.52	25	
4-Ethyltoluene	ug/m3	18.4	18.8	18.7	102	102	70.0-130	0.522	25	
Trichlorofluoromethane	ug/m3	21.1	21.9	21.7	104	103	70.0-130	0.772	25	
Dichlorodifluoromethane	ug/m3	18.5	18.3	18.1	98.7	97.6	64.0-139	1.09	25	
1,1,2-Trichlorotrifluoroethane	ug/m3	28.7	29.7	29.3	103	102	70.0-130	1.30	25	
Dichlorotetrafluoroethane	ug/m3	26.2	27.2	26.9	104	102	70.0-130	1.29	25	
n-Heptane	ug/m3	15.3	16.4	15.4	107	100	70.0-130	6.68	25	
Hexachloro-1,3-butadiene	ug/m3	40.0	41.6	40.2	104	101	70.0-151	3.39	25	
n-Hexane	ug/m3	13.2	13.8	13.8	105	105	70.0-130	0.00	25	
Isopropylbenzene (Cumene)	ug/m3	18.4	19.3	19.2	105	104	70.0-130	0.510	25	
Methylene Chloride	ug/m3	13.0	13.0	12.6	99.5	97.1	70.0-130	2.44	25	
2-Hexanone	ug/m3	15.3	16.6	16.4	108	107	70.0-149	1.24	25	
2-Butanone (MEK)	ug/m3	11.1	11.4	11.1	103	101	70.0-130	2.35	25	
4-Methyl-2-pentanone (MIBK)	ug/m3	15.4	16.5	16.3	107	106	70.0-139	1.25	25	
Methyl methacrylate	ug/m3	15.4	16.1	15.4	105	100	70.0-130	4.42	25	
Methyl-tert-butyl ether	ug/m3	13.5	14.3	14.1	106	105	70.0-130	1.02	25	
Naphthalene	ug/m3	19.6	21.2	20.3	108	103	70.0-159	4.30	25	
2-Propanol	ug/m3	9.22	9.71	9.51	105	103	70.0-139	2.05	25	
Propylene	ug/m3	6.46	6.68	6.54	103	101	64.0-144	2.08	25	
Styrene	ug/m3	16.0	16.5	16.5	104	104	70.0-130	0.00	25	
1,1,2,2-Tetrachloroethane	ug/m3	25.8	26.2	26.0	102	101	70.0-130	0.526	25	
Tetrachloroethene	ug/m3	25.5	26.6	26.1	105	102	70.0-130	2.06	25	
Tetrahydrofuran	ug/m3	11.1	11.3	11.1	102	101	70.0-137	1.32	25	

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QUALITY CONTROL DATA

Project: City of Bristol
Pace Project No.: 92705466

LABORATORY CONTROL SAMPLE & LCSD: R4018948-1 R4018948-2

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Toluene	ug/m3	14.1	14.7	14.5	104	103	70.0-130	0.774	25	
1,2,4-Trichlorobenzene	ug/m3	27.8	29.2	28.3	105	102	70.0-160	3.35	25	
1,1,1-Trichloroethane	ug/m3	20.4	21.3	21.0	104	103	70.0-130	1.29	25	
1,1,2-Trichloroethane	ug/m3	20.4	21.3	21.0	104	103	70.0-130	1.29	25	
Trichloroethene	ug/m3	20.1	20.7	20.5	103	102	70.0-130	1.04	25	
1,2,4-Trimethylbenzene	ug/m3	18.4	18.7	18.0	102	97.6	70.0-130	4.28	25	
1,3,5-Trimethylbenzene	ug/m3	18.4	18.8	18.9	102	103	70.0-130	0.521	25	
2,2,4-Trimethylpentane	ug/m3	17.5	18.8	18.5	107	105	70.0-130	1.76	25	
Vinyl chloride	ug/m3	9.59	9.89	10.1	103	106	70.0-130	2.30	25	
Vinyl bromide	ug/m3	16.4	16.6	16.6	101	101	70.0-130	0.00	25	
Vinyl acetate	ug/m3	13.2	13.2	13.1	100	98.9	70.0-130	1.07	25	
m&p-Xylene	ug/m3	32.5	34.7	34.2	107	105	70.0-130	1.64	25	
o-Xylene	ug/m3	16.3	16.7	16.8	103	103	70.0-130	0.517	25	
Xylene (Total)	ug/m3	49.1	51.7	51.2	105	104	70.0-130	0.844	25	
4-Bromofluorobenzene (S)	%				97.8	98.8	60.0-140			

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QUALIFIERS

Project: City of Bristol
Pace Project No.: 92705466

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.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

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

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
J	Analyte detected below the reporting limit, therefore result is an estimate. This qualifier is also used for all TICs.

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: City of Bristol
Pace Project No.: 92705466

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92705466001	**24-hour**	TO-15	2198203	TO-15	2198203

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Pace® Location Requested (City/State):

Air CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

L1690671

Scan QR code for instructions

H200

Company Name: Pace Analytical - Huntersville, NC	Contact/Report To: Sara Poulson
Street Address: 9800 Kincey Avenue, Suite 100 Huntersville, NC 28078	Phone #: 704-875-9092
City, State Zip:	E-Mail: Sara.Poulson@pacelabs.com
Customer Project #:	Cc E-Mail:
Project Name: City of Bristol	Invoice to:
Site Collection Info/Facility ID (as applicable): PACE-POULSONVA 001	Invoice E-Mail:
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [X] ET	Purchase Order # (if applicable):
Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other	Quote #:
Regulatory Program (CAA, RCRA, etc.) as applicable:	State origin of sample(s):
Rush (Pre-approval required): 2 Day 3 day 5 day Other	Permit # as applicable:
Date Results Requested:	Units for Reporting: ug/m³ PPBV mg/m³ PPMV

Field Information

Analyses Requested

Lab Use Only

Proj. Manager: 464 - Nancy McLain

AcctNum / Client ID: PACE

Table #:

Profile / Template: T210823

Prelog / Bottle Ord. ID: P1035829

* Matrix Codes (Insert in Matrix box below): Ambient (A), Indoor (I), Soil Vapor (SV), Other (O)

Customer Sample ID	Matrix *	Summa Canister ID	Flow Controller ID	Begin Collection Date	Begin Collection Time	End Collection Date	End Collection Time	Canister Pressure / Vacuum: Start Pressure / Vacuum (in Hg)	Canister Pressure / Vacuum: End Pressure / Vacuum (in Hg)	PUF / FILTER: Duration (minutes)	PUF / FILTER: Flow Rate m³/min or L/min	PUF / FILTER: Total Volume Sampled m³ or L	TO-15 Summa	Total VOC			Sample Comment
24-hour	Air	8870	7429	20 Dec 2023	1:54 pm	21 Dec 2023	1:54 pm	29	4				X	X			001 001
																	92705466

Sample Receipt Checklist

COC Seal Present/Intact: Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Size: 1L 1.4L
Tage Color: G B
Tubing Shunt

T Pe:

WO# : 92705466

92705466

Customer Remarks / Special Conditions / Possible Hazards: For Franklin D Cochran II - City of Bristol - Reporting through Pace-NC	Collected By: Printed Name: Jonathan Hayes Signature:

Relinquished by/Company: (Signature)	Date/Time: 21 Dec 2023/3:24	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time: 12/22 0815
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

Additional Instructions from Pace®:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C):	Corrected Temp. (°C):

Tracking Number:

Delivered by: In Person Courier FedEX UPS Other

Page: ____ of: ____

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