

**ATTACHMENT 3
SAMPLING RESULTS
JULY 2023 (24-HOUR SAMPLE)**





July 18, 2023

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

RE: Project: CITY OF BRISTOL
Pace Project No.: 92677214

Dear David Cochran:

Enclosed are the analytical results for sample(s) received by the laboratory on July 13, 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,

A handwritten signature in black ink, appearing to read 'Sara Poulson'.

Sara Poulson
sara.poulson@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Jonathan Hayes
Logan Howard, City of Bristol VA
Joey Lamie
Jennifer Robb, City of Bristol VA



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: CITY OF BRISTOL

Pace Project No.: 92677214

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.: 92677214

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92677214001	JULY 24HR SAMPLE	Air	07/11/23 09:01	07/13/23 09:00

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SAMPLE ANALYTE COUNT

Project: CITY OF BRISTOL

Pace Project No.: 92677214

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92677214001	JULY 24HR SAMPLE	TO-15	DAH	71	PAN

PAN = Pace National - Mt. Juliet

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SUMMARY OF DETECTION

Project: CITY OF BRISTOL

Pace Project No.: 92677214

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92677214001	JULY 24HR SAMPLE					
TO-15	Acetone	13.3	ug/m3	2.97	07/14/23 16:36	
TO-15	Benzene	0.910	ug/m3	0.639	07/14/23 16:36	
TO-15	Chloromethane	1.13	ug/m3	0.413	07/14/23 16:36	
TO-15	Ethanol	35.3	ug/m3	4.71	07/14/23 16:36	
TO-15	Ethyl acetate	0.547J	ug/m3	0.720	07/14/23 16:36	J
TO-15	Trichlorofluoromethane	1.23	ug/m3	1.12	07/14/23 16:36	
TO-15	Dichlorodifluoromethane	2.18	ug/m3	0.989	07/14/23 16:36	
TO-15	Methylene Chloride	1.71	ug/m3	0.694	07/14/23 16:36	
TO-15	2-Butanone (MEK)	2.31J	ug/m3	3.69	07/14/23 16:36	J
TO-15	2-Propanol	4.65	ug/m3	3.07	07/14/23 16:36	
TO-15	Toluene	1.71J	ug/m3	1.88	07/14/23 16:36	J

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PROJECT NARRATIVE

Project: CITY OF BRISTOL

Pace Project No.: 92677214

Method: TO-15

Description: VOA (MS) TO-15

Client: City of Bristol VA

Date: July 18, 2023

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.

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.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CITY OF BRISTOL

Pace Project No.: 92677214

Sample: JULY 24HR SAMPLE Lab ID: 92677214001 Collected: 07/11/23 09:01 Received: 07/13/23 09:00 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	13.3	ug/m3	2.97	1.39	1	07/14/23 16:36	07/14/23 16:36	67-64-1	
Acetonitrile	ND	ug/m3	8.39	0.395	1	07/14/23 16:36	07/14/23 16:36	75-05-8	
Allyl chloride	ND	ug/m3	0.626	0.357	1	07/14/23 16:36	07/14/23 16:36	107-05-1	
Benzene	0.910	ug/m3	0.639	0.228	1	07/14/23 16:36	07/14/23 16:36	71-43-2	
Benzyl chloride	ND	ug/m3	1.04	0.311	1	07/14/23 16:36	07/14/23 16:36	100-44-7	
Bromodichloromethane	ND	ug/m3	1.34	0.471	1	07/14/23 16:36	07/14/23 16:36	75-27-4	
Bromoform	ND	ug/m3	6.21	0.757	1	07/14/23 16:36	07/14/23 16:36	75-25-2	
Bromomethane	ND	ug/m3	0.776	0.381	1	07/14/23 16:36	07/14/23 16:36	74-83-9	
1,3-Butadiene	ND	ug/m3	4.43	0.230	1	07/14/23 16:36	07/14/23 16:36	106-99-0	
Carbon disulfide	ND	ug/m3	0.622	0.317	1	07/14/23 16:36	07/14/23 16:36	75-15-0	
Carbon tetrachloride	ND	ug/m3	1.26	0.461	1	07/14/23 16:36	07/14/23 16:36	56-23-5	
Chlorobenzene	ND	ug/m3	0.924	0.385	1	07/14/23 16:36	07/14/23 16:36	108-90-7	
Chloroethane	ND	ug/m3	0.528	0.263	1	07/14/23 16:36	07/14/23 16:36	75-00-3	
Chloroform	ND	ug/m3	0.973	0.349	1	07/14/23 16:36	07/14/23 16:36	67-66-3	
Chloromethane	1.13	ug/m3	0.413	0.213	1	07/14/23 16:36	07/14/23 16:36	74-87-3	
2-Chlorotoluene	ND	ug/m3	1.03	0.427	1	07/14/23 16:36	07/14/23 16:36	95-49-8	
Cyclohexane	ND	ug/m3	0.689	0.259	1	07/14/23 16:36	07/14/23 16:36	110-82-7	
Dibromochloromethane	ND	ug/m3	1.70	0.618	1	07/14/23 16:36	07/14/23 16:36	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.54	0.554	1	07/14/23 16:36	07/14/23 16:36	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.20	0.770	1	07/14/23 16:36	07/14/23 16:36	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.20	1.09	1	07/14/23 16:36	07/14/23 16:36	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.20	0.335	1	07/14/23 16:36	07/14/23 16:36	106-46-7	
1,2-Dichloroethane	ND	ug/m3	0.810	0.283	1	07/14/23 16:36	07/14/23 16:36	107-06-2	
1,1-Dichloroethane	ND	ug/m3	0.802	0.290	1	07/14/23 16:36	07/14/23 16:36	75-34-3	
1,1-Dichloroethene	ND	ug/m3	0.793	0.302	1	07/14/23 16:36	07/14/23 16:36	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.793	0.311	1	07/14/23 16:36	07/14/23 16:36	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.793	0.267	1	07/14/23 16:36	07/14/23 16:36	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.924	0.351	1	07/14/23 16:36	07/14/23 16:36	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.908	0.313	1	07/14/23 16:36	07/14/23 16:36	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.908	0.331	1	07/14/23 16:36	07/14/23 16:36	10061-02-6	
1,4-Dioxane (p-Dioxane)	ND	ug/m3	0.721	0.300	1	07/14/23 16:36	07/14/23 16:36	123-91-1	
Ethanol	35.3	ug/m3	4.71	0.500	1	07/14/23 16:36	07/14/23 16:36	64-17-5	
Ethylbenzene	ND	ug/m3	0.867	0.362	1	07/14/23 16:36	07/14/23 16:36	100-41-4	
Ethyl acetate	0.547J	ug/m3	0.720	0.360	1	07/14/23 16:36	07/14/23 16:36	141-78-6	J
4-Ethyltoluene	ND	ug/m3	0.982	0.384	1	07/14/23 16:36	07/14/23 16:36	622-96-8	
Trichlorofluoromethane	1.23	ug/m3	1.12	0.460	1	07/14/23 16:36	07/14/23 16:36	75-69-4	
Dichlorodifluoromethane	2.18	ug/m3	0.989	0.678	1	07/14/23 16:36	07/14/23 16:36	75-71-8	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.53	0.608	1	07/14/23 16:36	07/14/23 16:36	76-13-1	
Dichlorotetrafluoroethane	ND	ug/m3	1.40	0.622	1	07/14/23 16:36	07/14/23 16:36	76-14-2	
n-Heptane	ND	ug/m3	0.818	0.425	1	07/14/23 16:36	07/14/23 16:36	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	6.73	1.12	1	07/14/23 16:36	07/14/23 16:36	87-68-3	
n-Hexane	ND	ug/m3	2.22	0.726	1	07/14/23 16:36	07/14/23 16:36	110-54-3	
Isopropylbenzene (Cumene)	ND	ug/m3	0.983	0.382	1	07/14/23 16:36	07/14/23 16:36	98-82-8	
Methylene Chloride	1.71	ug/m3	0.694	0.340	1	07/14/23 16:36	07/14/23 16:36	75-09-2	
2-Hexanone	ND	ug/m3	5.11	0.544	1	07/14/23 16:36	07/14/23 16:36	591-78-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CITY OF BRISTOL

Pace Project No.: 92677214

Sample: JULY 24HR SAMPLE Lab ID: 92677214001 Collected: 07/11/23 09:01 Received: 07/13/23 09:00 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)	2.31J	ug/m3	3.69	0.240	1	07/14/23 16:36	07/14/23 16:36	78-93-3	J
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	5.12	0.313	1	07/14/23 16:36	07/14/23 16:36	108-10-1	
Methyl methacrylate	ND	ug/m3	0.819	0.359	1	07/14/23 16:36	07/14/23 16:36	80-62-6	
Methyl-tert-butyl ether	ND	ug/m3	0.721	0.233	1	07/14/23 16:36	07/14/23 16:36	1634-04-4	
Naphthalene	ND	ug/m3	3.30	1.83	1	07/14/23 16:36	07/14/23 16:36	91-20-3	
2-Propanol	4.65	ug/m3	3.07	0.649	1	07/14/23 16:36	07/14/23 16:36	67-63-0	
Propylene	ND	ug/m3	2.15	0.160	1	07/14/23 16:36	07/14/23 16:36	115-07-1	
Styrene	ND	ug/m3	0.851	0.335	1	07/14/23 16:36	07/14/23 16:36	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.37	0.511	1	07/14/23 16:36	07/14/23 16:36	79-34-5	
Tetrachloroethene	ND	ug/m3	1.36	0.553	1	07/14/23 16:36	07/14/23 16:36	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.590	0.216	1	07/14/23 16:36	07/14/23 16:36	109-99-9	
Toluene	1.71J	ug/m3	1.88	0.328	1	07/14/23 16:36	07/14/23 16:36	108-88-3	J
1,2,4-Trichlorobenzene	ND	ug/m3	4.66	1.10	1	07/14/23 16:36	07/14/23 16:36	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.09	0.400	1	07/14/23 16:36	07/14/23 16:36	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	1.09	0.422	1	07/14/23 16:36	07/14/23 16:36	79-00-5	
Trichloroethene	ND	ug/m3	1.07	0.364	1	07/14/23 16:36	07/14/23 16:36	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/m3	0.982	0.375	1	07/14/23 16:36	07/14/23 16:36	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	0.982	0.382	1	07/14/23 16:36	07/14/23 16:36	108-67-8	
2,2,4-Trimethylpentane	ND	ug/m3	0.934	0.621	1	07/14/23 16:36	07/14/23 16:36	540-84-1	
Vinyl chloride	ND	ug/m3	0.511	0.243	1	07/14/23 16:36	07/14/23 16:36	75-01-4	
Vinyl bromide	ND	ug/m3	0.875	0.373	1	07/14/23 16:36	07/14/23 16:36	593-60-2	
Vinyl acetate	ND	ug/m3	0.704	0.408	1	07/14/23 16:36	07/14/23 16:36	108-05-4	
m&p-Xylene	ND	ug/m3	1.73	0.585	1	07/14/23 16:36	07/14/23 16:36	179601-23-1	
o-Xylene	ND	ug/m3	0.867	0.359	1	07/14/23 16:36	07/14/23 16:36	95-47-6	
Xylene (Total)	ND	ug/m3	2.61	0.586	1	07/14/23 16:36	07/14/23 16:36	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99.3	%	60.0-140		1	07/14/23 16:36	07/14/23 16:36	460-00-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CITY OF BRISTOL
Pace Project No.: 92677214

QC Batch:	2094910	Analysis Method:	TO-15
QC Batch Method:	TO-15	Analysis Description:	VOA (MS) TO-15
		Laboratory:	Pace National - Mt. Juliet

Associated Lab Samples: 92677214001

METHOD BLANK: R3948819-3 Matrix: Air
Associated Lab Samples: 92677214001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acetone	ug/m3	ND	2.97	1.39	07/14/23 11:01	
Acetonitrile	ug/m3	ND	8.39	0.395	07/14/23 11:01	
Allyl chloride	ug/m3	ND	0.626	0.357	07/14/23 11:01	
Benzene	ug/m3	ND	0.639	0.228	07/14/23 11:01	
Benzyl chloride	ug/m3	ND	1.04	0.311	07/14/23 11:01	
Bromodichloromethane	ug/m3	ND	1.34	0.471	07/14/23 11:01	
Bromoform	ug/m3	ND	6.21	0.757	07/14/23 11:01	
Bromomethane	ug/m3	ND	0.776	0.381	07/14/23 11:01	
1,3-Butadiene	ug/m3	ND	4.43	0.230	07/14/23 11:01	
Carbon disulfide	ug/m3	ND	0.622	0.317	07/14/23 11:01	
Carbon tetrachloride	ug/m3	ND	1.26	0.461	07/14/23 11:01	
Chlorobenzene	ug/m3	ND	0.924	0.385	07/14/23 11:01	
Chloroethane	ug/m3	ND	0.528	0.263	07/14/23 11:01	
Chloroform	ug/m3	ND	0.973	0.349	07/14/23 11:01	
Chloromethane	ug/m3	ND	0.413	0.213	07/14/23 11:01	
2-Chlorotoluene	ug/m3	ND	1.03	0.427	07/14/23 11:01	
Cyclohexane	ug/m3	ND	0.689	0.259	07/14/23 11:01	
Dibromochloromethane	ug/m3	ND	1.70	0.618	07/14/23 11:01	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.54	0.554	07/14/23 11:01	
1,2-Dichlorobenzene	ug/m3	ND	1.20	0.770	07/14/23 11:01	
1,3-Dichlorobenzene	ug/m3	ND	1.20	1.09	07/14/23 11:01	
1,4-Dichlorobenzene	ug/m3	ND	1.20	0.335	07/14/23 11:01	
1,2-Dichloroethane	ug/m3	ND	0.810	0.283	07/14/23 11:01	
1,1-Dichloroethane	ug/m3	ND	0.802	0.290	07/14/23 11:01	
1,1-Dichloroethene	ug/m3	ND	0.793	0.302	07/14/23 11:01	
cis-1,2-Dichloroethene	ug/m3	ND	0.793	0.311	07/14/23 11:01	
trans-1,2-Dichloroethene	ug/m3	ND	0.793	0.267	07/14/23 11:01	
1,2-Dichloropropane	ug/m3	ND	0.924	0.351	07/14/23 11:01	
cis-1,3-Dichloropropene	ug/m3	ND	0.908	0.313	07/14/23 11:01	
trans-1,3-Dichloropropene	ug/m3	ND	0.908	0.331	07/14/23 11:01	
1,4-Dioxane (p-Dioxane)	ug/m3	ND	0.721	0.300	07/14/23 11:01	
Ethanol	ug/m3	1.02J	4.71	0.500	07/14/23 11:01	J
Ethylbenzene	ug/m3	ND	0.867	0.362	07/14/23 11:01	
Ethyl acetate	ug/m3	ND	0.720	0.360	07/14/23 11:01	
4-Ethyltoluene	ug/m3	ND	0.982	0.384	07/14/23 11:01	
Trichlorofluoromethane	ug/m3	ND	1.12	0.460	07/14/23 11:01	
Dichlorodifluoromethane	ug/m3	ND	0.989	0.678	07/14/23 11:01	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.53	0.608	07/14/23 11:01	
Dichlorotetrafluoroethane	ug/m3	ND	1.40	0.622	07/14/23 11:01	
n-Heptane	ug/m3	ND	0.818	0.425	07/14/23 11:01	

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.

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QUALITY CONTROL DATA

Project: CITY OF BRISTOL
Pace Project No.: 92677214

METHOD BLANK: R3948819-3

Matrix: Air

Associated Lab Samples: 92677214001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/m3	ND	6.73	1.12	07/14/23 11:01	
n-Hexane	ug/m3	ND	2.22	0.726	07/14/23 11:01	
Isopropylbenzene (Cumene)	ug/m3	ND	0.983	0.382	07/14/23 11:01	
Methylene Chloride	ug/m3	ND	0.694	0.340	07/14/23 11:01	
2-Hexanone	ug/m3	ND	5.11	0.544	07/14/23 11:01	
2-Butanone (MEK)	ug/m3	ND	3.69	0.240	07/14/23 11:01	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	5.12	0.313	07/14/23 11:01	
Methyl methacrylate	ug/m3	ND	0.819	0.359	07/14/23 11:01	
Methyl-tert-butyl ether	ug/m3	ND	0.721	0.233	07/14/23 11:01	
Naphthalene	ug/m3	3.24J	3.30	1.83	07/14/23 11:01	J
2-Propanol	ug/m3	ND	3.07	0.649	07/14/23 11:01	
Propylene	ug/m3	ND	2.15	0.160	07/14/23 11:01	
Styrene	ug/m3	ND	0.851	0.335	07/14/23 11:01	
1,1,2,2-Tetrachloroethane	ug/m3	ND	1.37	0.511	07/14/23 11:01	
Tetrachloroethene	ug/m3	ND	1.36	0.553	07/14/23 11:01	
Tetrahydrofuran	ug/m3	ND	0.590	0.216	07/14/23 11:01	
Toluene	ug/m3	ND	1.88	0.328	07/14/23 11:01	
1,2,4-Trichlorobenzene	ug/m3	ND	4.66	1.10	07/14/23 11:01	
1,1,1-Trichloroethane	ug/m3	ND	1.09	0.400	07/14/23 11:01	
1,1,2-Trichloroethane	ug/m3	ND	1.09	0.422	07/14/23 11:01	
Trichloroethene	ug/m3	ND	1.07	0.364	07/14/23 11:01	
1,2,4-Trimethylbenzene	ug/m3	ND	0.982	0.375	07/14/23 11:01	
1,3,5-Trimethylbenzene	ug/m3	ND	0.982	0.382	07/14/23 11:01	
2,2,4-Trimethylpentane	ug/m3	ND	0.934	0.621	07/14/23 11:01	
Vinyl chloride	ug/m3	ND	0.511	0.243	07/14/23 11:01	
Vinyl bromide	ug/m3	ND	0.875	0.373	07/14/23 11:01	
Vinyl acetate	ug/m3	ND	0.704	0.408	07/14/23 11:01	
m&p-Xylene	ug/m3	ND	1.73	0.585	07/14/23 11:01	
o-Xylene	ug/m3	ND	0.867	0.359	07/14/23 11:01	
Xylene (Total)	ug/m3	ND	2.61	0.586	07/14/23 11:01	
4-Bromofluorobenzene (S)	%	99.7	60.0-140		07/14/23 11:01	

LABORATORY CONTROL SAMPLE & LCSD: R3948819-1

R3948819-2

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Acetone	ug/m3	8.91	7.82	8.01	87.7	89.9	70.0-130	2.40	25	
Acetonitrile	ug/m3	31.6	30.9	30.6	97.9	96.8	70.0-130	1.09	25	
Allyl chloride	ug/m3	11.7	10.9	11.0	92.8	93.6	70.0-130	0.858	25	
Benzene	ug/m3	12.0	11.8	11.6	98.1	96.5	70.0-130	1.64	25	
Benzyl chloride	ug/m3	19.5	17.4	17.2	89.3	88.3	70.0-152	1.20	25	
Bromodichloromethane	ug/m3	25.2	23.4	23.1	93.1	91.7	70.0-130	1.44	25	
Bromoform	ug/m3	38.8	34.7	34.8	89.3	89.6	70.0-130	0.298	25	
Bromomethane	ug/m3	14.6	13.8	13.9	94.9	95.2	70.0-130	0.281	25	
1,3-Butadiene	ug/m3	8.30	7.19	7.19	86.7	86.7	70.0-130	0.00	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CITY OF BRISTOL

Pace Project No.: 92677214

LABORATORY CONTROL SAMPLE & LCSD: R3948819-1			R3948819-2							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Carbon disulfide	ug/m3	11.7	11.0	10.8	93.9	92.5	70.0-130	1.43	25	
Carbon tetrachloride	ug/m3	23.6	22.6	22.4	95.7	94.7	70.0-130	1.12	25	
Chlorobenzene	ug/m3	17.3	16.6	16.4	95.7	94.4	70.0-130	1.40	25	
Chloroethane	ug/m3	9.89	9.29	9.13	93.9	92.3	70.0-130	1.72	25	
Chloroform	ug/m3	18.3	18.2	18.3	99.5	100	70.0-130	0.801	25	
Chloromethane	ug/m3	7.75	7.29	7.23	94.1	93.3	70.0-130	0.853	25	
2-Chlorotoluene	ug/m3	19.3	21.2	20.9	110	108	70.0-130	1.71	25	
Cyclohexane	ug/m3	12.9	13.5	13.4	104	104	70.0-130	0.256	25	
Dibromochloromethane	ug/m3	31.9	29.8	29.1	93.3	91.2	70.0-130	2.31	25	
1,2-Dibromoethane (EDB)	ug/m3	28.8	27.6	27.1	95.7	94.1	70.0-130	1.69	25	
1,2-Dichlorobenzene	ug/m3	22.5	23.1	22.8	102	101	70.0-130	1.05	25	
1,3-Dichlorobenzene	ug/m3	22.5	23.4	23.1	104	102	70.0-130	1.29	25	
1,4-Dichlorobenzene	ug/m3	22.5	23.7	23.3	105	103	70.0-130	2.05	25	
1,2-Dichloroethane	ug/m3	15.2	15.0	14.7	98.7	97.1	70.0-130	1.63	25	
1,1-Dichloroethane	ug/m3	15.0	14.7	14.8	97.9	98.7	70.0-130	0.814	25	
1,1-Dichloroethene	ug/m3	14.9	14.2	14.0	95.7	93.9	70.0-130	1.97	25	
cis-1,2-Dichloroethene	ug/m3	14.9	15.4	15.5	104	104	70.0-130	0.257	25	
trans-1,2-Dichloroethene	ug/m3	14.9	13.8	13.8	92.5	92.5	70.0-130	0.00	25	
1,2-Dichloropropane	ug/m3	17.3	16.3	16.2	93.9	93.3	70.0-130	0.570	25	
cis-1,3-Dichloropropene	ug/m3	17.0	16.2	15.6	94.9	91.7	70.0-130	3.43	25	
trans-1,3-Dichloropropene	ug/m3	17.0	16.0	15.8	94.1	92.5	70.0-130	1.71	25	
1,4-Dioxane (p-Dioxane)	ug/m3	13.5	14.6	14.5	108	107	70.0-140	0.742	25	
Ethanol	ug/m3	7.07	7.33	7.41	104	105	55.0-148	1.02	25	
Ethylbenzene	ug/m3	16.3	18.2	18.1	112	111	70.0-130	0.717	25	
Ethyl acetate	ug/m3	13.5	14.5	14.3	108	106	70.0-130	1.50	25	
4-Ethyltoluene	ug/m3	18.4	21.8	21.2	119	115	70.0-130	2.96	25	
Trichlorofluoromethane	ug/m3	21.1	19.6	19.7	93.1	93.6	70.0-130	0.571	25	
Dichlorodifluoromethane	ug/m3	18.5	17.2	17.5	92.5	94.1	64.0-139	1.71	25	
1,1,2-Trichlorotrifluoroethane	ug/m3	28.7	27.2	27.0	94.7	93.9	70.0-130	0.849	25	
Dichlorotetrafluoroethane	ug/m3	26.2	24.5	24.7	93.3	94.1	70.0-130	0.853	25	
n-Heptane	ug/m3	15.3	16.0	15.6	104	102	70.0-130	2.07	25	
Hexachloro-1,3-butadiene	ug/m3	40.0	38.3	37.4	95.7	93.3	70.0-151	2.54	25	
n-Hexane	ug/m3	13.2	14.1	14.1	107	106	70.0-130	0.250	25	
Isopropylbenzene (Cumene)	ug/m3	18.4	20.0	19.8	109	107	70.0-130	0.988	25	
Methylene Chloride	ug/m3	13.0	12.0	11.7	92.0	89.9	70.0-130	2.35	25	
2-Hexanone	ug/m3	15.3	19.8	17.8	129	116	70.0-149	10.4	25	
2-Butanone (MEK)	ug/m3	11.1	12.1	11.7	109	106	70.0-130	2.73	25	
4-Methyl-2-pentanone (MIBK)	ug/m3	15.4	17.5	17.2	114	112	70.0-139	1.65	25	
Methyl methacrylate	ug/m3	15.4	17.1	16.6	111	108	70.0-130	2.67	25	
Methyl-tert-butyl ether	ug/m3	13.5	14.3	13.9	106	103	70.0-130	2.55	25	
Naphthalene	ug/m3	19.6	21.3	20.9	108	106	70.0-159	1.74	25	
2-Propanol	ug/m3	9.22	9.41	9.37	102	102	70.0-139	0.524	25	
Propylene	ug/m3	6.46	6.32	6.20	97.9	96.0	64.0-144	1.93	25	
Styrene	ug/m3	16.0	19.5	19.1	122	119	70.0-130	2.43	25	
1,1,2,2-Tetrachloroethane	ug/m3	25.8	25.2	25.4	97.9	98.4	70.0-130	0.543	25	
Tetrachloroethene	ug/m3	25.5	24.6	24.4	96.5	96.0	70.0-130	0.554	25	
Tetrahydrofuran	ug/m3	11.1	12.0	12.1	108	110	70.0-137	1.47	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CITY OF BRISTOL

Pace Project No.: 92677214

LABORATORY CONTROL SAMPLE & LCSD: R3948819-1			R3948819-2							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Toluene	ug/m3	14.1	14.6	14.4	103	102	70.0-130	1.56	25	
1,2,4-Trichlorobenzene	ug/m3	27.8	28.6	27.6	103	99.5	70.0-160	3.43	25	
1,1,1-Trichloroethane	ug/m3	20.4	19.8	19.6	97.1	96.0	70.0-130	1.10	25	
1,1,2-Trichloroethane	ug/m3	20.4	19.6	19.0	96.3	93.1	70.0-130	3.38	25	
Trichloroethene	ug/m3	20.1	19.6	19.4	97.6	96.8	70.0-130	0.823	25	
1,2,4-Trimethylbenzene	ug/m3	18.4	22.8	22.6	124	123	70.0-130	0.866	25	
1,3,5-Trimethylbenzene	ug/m3	18.4	21.3	21.1	116	115	70.0-130	1.16	25	
2,2,4-Trimethylpentane	ug/m3	17.5	18.3	18.4	104	105	70.0-130	0.510	25	
Vinyl chloride	ug/m3	9.59	8.84	8.95	92.3	93.3	70.0-130	1.15	25	
Vinyl bromide	ug/m3	16.4	15.7	15.6	95.5	95.2	70.0-130	0.280	25	
Vinyl acetate	ug/m3	13.2	13.8	14.2	104	107	70.0-130	2.77	25	
m&p-Xylene	ug/m3	32.5	37.6	37.4	116	115	70.0-130	0.462	25	
o-Xylene	ug/m3	16.3	18.6	18.4	114	113	70.0-130	0.939	25	
Xylene (Total)	ug/m3	49.1	56.4	56.0	115	114	70.0-130	0.772	25	
4-Bromofluorobenzene (S)	%				99.9	102	60.0-140			

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QUALIFIERS

Project: CITY OF BRISTOL
Pace Project No.: 92677214

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

J Analyte detected below the reporting limit, therefore result is an estimate. This qualifier is also used for all TICs.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CITY OF BRISTOL
Pace Project No.: 92677214

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92677214001	JULY 24HR SAMPLE	TO-15	2094910	TO-15	2094910

REPORT OF LABORATORY ANALYSIS

WO#: 92677214

Chain of Custody Page ___ of ___

Company Name/Address:

Pace Analytical - Huntersville, NC

9800 Kinney Avenue, Suite 100
Huntersville, NC 28078

Billing Information:

Accounts Payable
9800 Kinney Ave., Ste. 100
Huntersville, NC 28078

PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Road Mt Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859
Submitting a sample via this chain of custody
constitutes acknowledgment and acceptance
of the Pace Terms and Conditions found at:
<https://info.pacelabs.com/hubs/pas-standard-terms.pdf>

Report To:

Sara Poulson

Email To:

Sara.Poulson@pacelabs.com

Project City of Bristol
Description:City/State
Collected:

Bristol VA

Please Circle:

PT MT CT ET

Phone:

704-875-9092

Client Project #

Lab Project #

PACE-POULSONVA

Collected by (print):

Franklin D Cochran II

Site/Facility ID #

001

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)

___ Same Day ___ Three Day
___ Next Day ___ Five Day
___ Two Day

Date Results Needed

Collection

Canister Pressure/Vacuum

Sample ID

Can #

Flow Cont. #

Date

Time

Initial

Final

July 24hr Sample

015168

022550

7/11/23

9:01am

27 Hg

0 Hg

TO-15 Summa

X

Sample Receipt Checklist

COC Seal Present/Intact: Y N If Applicable
COC Signed/Accurate: Y N VOA Zero Headspace: Y N
Bottles arrive intact: Y N Pres. Correct/Check: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
RAD Screen <0.5 mR/hr: Y N

Remarks:

For Franklin D Cochran II - City of Bristol - Reporting through Pace-NC

Samples returned via:

___ UPS ___ FedEx ___ Courier ___

Tracking #

Hold #

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Date:

Time:

Condition: (lab use only)

OK

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Date:

Time:

COC Seal Intact: ___ Y ___ N Y N

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date:

Time:

NCF:

7-13-23

0900