

February 28, 2022

Sam Hess
Bristol Solid Waste Management Facility
2125 Shakesville Rd
Bristol, VA 24201

RE: Project: CITY OF BRISTOL
Pace Project No.: 92589442

Dear Sam Hess:

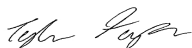
Enclosed are the analytical results for sample(s) received by the laboratory on February 22, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise 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,



Tyler Forney
tyler.forney@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Ms. Carrie Blankenship, Draper Aden Associates
Ms. Janet Frazier, Draper Aden Associates
Zac Mitchell, City of Bristol, Virginia
Kathy Olsen, Draper Aden Associates



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: CITY OF BRISTOL

Pace Project No.: 92589442

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.: 92589442

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92589442001	FEBRUARY 24-HR	Air	02/21/22 10:13	02/22/22 09:05

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SAMPLE ANALYTE COUNT

Project: CITY OF BRISTOL

Pace Project No.: 92589442

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92589442001	FEBRUARY 24-HR	TO-15	DAH	68	PAN

PAN = Pace National - Mt. Juliet

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: CITY OF BRISTOL

Pace Project No.: 92589442

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92589442001	FEBRUARY 24-HR					
TO-15	Acetone	5.92	ug/m3	2.97	02/24/22 10:58	
TO-15	Benzene	5.24	ug/m3	0.639	02/24/22 10:58	
TO-15	Chloromethane	1.23	ug/m3	0.413	02/24/22 10:58	
TO-15	Ethanol	6.67	ug/m3	2.36	02/24/22 10:58	
TO-15	Trichlorofluoromethane	1.24	ug/m3	1.12	02/24/22 10:58	
TO-15	Dichlorodifluoromethane	3.14	ug/m3	0.989	02/24/22 10:58	

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: CITY OF BRISTOL

Pace Project No.: 92589442

Method: TO-15

Description: VOA (MS) TO-15

Client: Draper Aden - Virginia

Date: February 28, 2022

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.: 92589442

Sample: FEBRUARY 24-HR		Lab ID: 92589442001		Collected: 02/21/22 10:13		Received: 02/22/22 09:05		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	5.92	ug/m3	2.97	0.5840	1	02/24/22 10:58	02/24/22 10:58	67-64-1	
Allyl chloride	ND	ug/m3	0.626	0.1140	1	02/24/22 10:58	02/24/22 10:58	107-05-1	
Benzene	5.24	ug/m3	0.639	0.0715	1	02/24/22 10:58	02/24/22 10:58	71-43-2	
Benzyl chloride	ND	ug/m3	1.04	0.0598	1	02/24/22 10:58	02/24/22 10:58	100-44-7	
Bromodichloromethane	ND	ug/m3	1.34	0.0702	1	02/24/22 10:58	02/24/22 10:58	75-27-4	
Bromoform	ND	ug/m3	6.21	0.0732	1	02/24/22 10:58	02/24/22 10:58	75-25-2	
Bromomethane	ND	ug/m3	0.776	0.0982	1	02/24/22 10:58	02/24/22 10:58	74-83-9	
1,3-Butadiene	ND	ug/m3	4.43	0.1040	1	02/24/22 10:58	02/24/22 10:58	106-99-0	
Carbon disulfide	ND	ug/m3	0.622	0.1020	1	02/24/22 10:58	02/24/22 10:58	75-15-0	
Carbon tetrachloride	ND	ug/m3	1.26	0.0732	1	02/24/22 10:58	02/24/22 10:58	56-23-5	
Chlorobenzene	ND	ug/m3	0.924	0.0832	1	02/24/22 10:58	02/24/22 10:58	108-90-7	
Chloroethane	ND	ug/m3	0.528	0.0996	1	02/24/22 10:58	02/24/22 10:58	75-00-3	
Chloroform	ND	ug/m3	0.973	0.0717	1	02/24/22 10:58	02/24/22 10:58	67-66-3	
Chloromethane	1.23	ug/m3	0.413	0.1030	1	02/24/22 10:58	02/24/22 10:58	74-87-3	
2-Chlorotoluene	ND	ug/m3	1.03	0.0828	1	02/24/22 10:58	02/24/22 10:58	95-49-8	
Cyclohexane	ND	ug/m3	0.689	0.0753	1	02/24/22 10:58	02/24/22 10:58	110-82-7	
Dibromochloromethane	ND	ug/m3	1.70	0.0727	1	02/24/22 10:58	02/24/22 10:58	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.54	0.0721	1	02/24/22 10:58	02/24/22 10:58	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.20	0.1280	1	02/24/22 10:58	02/24/22 10:58	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.20	0.1820	1	02/24/22 10:58	02/24/22 10:58	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.20	0.0557	1	02/24/22 10:58	02/24/22 10:58	106-46-7	
1,2-Dichloroethane	ND	ug/m3	0.810	0.07	1	02/24/22 10:58	02/24/22 10:58	107-06-2	
1,1-Dichloroethane	ND	ug/m3	0.802	0.0723	1	02/24/22 10:58	02/24/22 10:58	75-34-3	
1,1-Dichloroethene	ND	ug/m3	0.793	0.0762	1	02/24/22 10:58	02/24/22 10:58	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.793	0.0784	1	02/24/22 10:58	02/24/22 10:58	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.793	0.0673	1	02/24/22 10:58	02/24/22 10:58	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.924	0.0760	1	02/24/22 10:58	02/24/22 10:58	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.908	0.0689	1	02/24/22 10:58	02/24/22 10:58	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.908	0.0728	1	02/24/22 10:58	02/24/22 10:58	10061-02-6	
1,4-Dioxane (p-Dioxane)	ND	ug/m3	0.721	0.0833	1	02/24/22 10:58	02/24/22 10:58	123-91-1	
Ethanol	6.67	ug/m3	2.36	0.2650	1	02/24/22 10:58	02/24/22 10:58	64-17-5	
Ethylbenzene	ND	ug/m3	0.867	0.0835	1	02/24/22 10:58	02/24/22 10:58	100-41-4	
4-Ethyltoluene	ND	ug/m3	0.982	0.0783	1	02/24/22 10:58	02/24/22 10:58	622-96-8	
Trichlorofluoromethane	1.24	ug/m3	1.12	0.0819	1	02/24/22 10:58	02/24/22 10:58	75-69-4	
Dichlorodifluoromethane	3.14	ug/m3	0.989	0.1370	1	02/24/22 10:58	02/24/22 10:58	75-71-8	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.53	0.0793	1	02/24/22 10:58	02/24/22 10:58	76-13-1	
Dichlorotetrafluoroethane	ND	ug/m3	1.40	0.0890	1	02/24/22 10:58	02/24/22 10:58	76-14-2	
n-Heptane	ND	ug/m3	0.818	0.1040	1	02/24/22 10:58	02/24/22 10:58	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	6.73	0.1050	1	02/24/22 10:58	02/24/22 10:58	87-68-3	
n-Hexane	ND	ug/m3	2.22	0.2060	1	02/24/22 10:58	02/24/22 10:58	110-54-3	
Isopropylbenzene (Cumene)	ND	ug/m3	0.983	0.0777	1	02/24/22 10:58	02/24/22 10:58	98-82-8	
Methylene Chloride	ND	ug/m3	0.694	0.0979	1	02/24/22 10:58	02/24/22 10:58	75-09-2	
2-Hexanone	ND	ug/m3	5.11	0.1330	1	02/24/22 10:58	02/24/22 10:58	591-78-6	
2-Butanone (MEK)	ND	ug/m3	3.69	0.0814	1	02/24/22 10:58	02/24/22 10:58	78-93-3	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	5.12	0.0765	1	02/24/22 10:58	02/24/22 10:58	108-10-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CITY OF BRISTOL

Pace Project No.: 92589442

Sample: FEBRUARY 24-HR		Lab ID: 92589442001		Collected: 02/21/22 10:13		Received: 02/22/22 09:05		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							
Methyl methacrylate	ND	ug/m3	0.819	0.0876	1	02/24/22 10:58	02/24/22 10:58	80-62-6	
Methyl-tert-butyl ether	ND	ug/m3	0.721	0.0647	1	02/24/22 10:58	02/24/22 10:58	1634-04-4	
Naphthalene	ND	ug/m3	3.30	0.35	1	02/24/22 10:58	02/24/22 10:58	91-20-3	
2-Propanol	ND	ug/m3	3.07	0.2640	1	02/24/22 10:58	02/24/22 10:58	67-63-0	
Propylene	ND	ug/m3	2.15	0.0932	1	02/24/22 10:58	02/24/22 10:58	115-07-1	
Styrene	ND	ug/m3	0.851	0.0788	1	02/24/22 10:58	02/24/22 10:58	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.37	0.0743	1	02/24/22 10:58	02/24/22 10:58	79-34-5	
Tetrachloroethene	ND	ug/m3	1.36	0.0814	1	02/24/22 10:58	02/24/22 10:58	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.590	0.0734	1	02/24/22 10:58	02/24/22 10:58	109-99-9	
Toluene	ND	ug/m3	1.88	0.0870	1	02/24/22 10:58	02/24/22 10:58	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	4.66	0.1480	1	02/24/22 10:58	02/24/22 10:58	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.09	0.0736	1	02/24/22 10:58	02/24/22 10:58	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	1.09	0.0775	1	02/24/22 10:58	02/24/22 10:58	79-00-5	
Trichloroethene	ND	ug/m3	1.07	0.0680	1	02/24/22 10:58	02/24/22 10:58	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/m3	0.982	0.0764	1	02/24/22 10:58	02/24/22 10:58	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	0.982	0.0779	1	02/24/22 10:58	02/24/22 10:58	108-67-8	
2,2,4-Trimethylpentane	ND	ug/m3	0.934	0.1330	1	02/24/22 10:58	02/24/22 10:58	540-84-1	
Vinyl chloride	ND	ug/m3	0.511	0.0949	1	02/24/22 10:58	02/24/22 10:58	75-01-4	
Vinyl bromide	ND	ug/m3	0.875	0.0852	1	02/24/22 10:58	02/24/22 10:58	593-60-2	
Vinyl acetate	ND	ug/m3	0.704	0.1160	1	02/24/22 10:58	02/24/22 10:58	108-05-4	
m&p-Xylene	ND	ug/m3	1.73	0.1350	1	02/24/22 10:58	02/24/22 10:58	179601-23-1	
o-Xylene	ND	ug/m3	0.867	0.0828	1	02/24/22 10:58	02/24/22 10:58	95-47-6	
Surrogates									
1,4-Dichlorobenzene-d4 (IS)	98.4	%	60.0-140		1	02/24/22 10:58	02/24/22 10:58	3855-82-1	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CITY OF BRISTOL
Pace Project No.: 92589442

QC Batch:	1823114	Analysis Method:	TO-15
QC Batch Method:	TO-15	Analysis Description:	VOA (MS) TO-15
		Laboratory:	Pace National - Mt. Juliet

Associated Lab Samples: 92589442001

METHOD BLANK: R3763566-3 Matrix: Air
Associated Lab Samples: 92589442001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acetone	ppbv	ND	1.25	0.584	02/24/22 09:57	
Allyl chloride	ppbv	ND	0.200	0.114	02/24/22 09:57	
Benzene	ppbv	ND	0.200	0.0715	02/24/22 09:57	
Benzyl chloride	ppbv	ND	0.200	0.0598	02/24/22 09:57	
Bromodichloromethane	ppbv	ND	0.200	0.0702	02/24/22 09:57	
Bromoform	ppbv	ND	0.600	0.0732	02/24/22 09:57	
Bromomethane	ppbv	ND	0.200	0.0982	02/24/22 09:57	
1,3-Butadiene	ppbv	ND	2.00	0.104	02/24/22 09:57	
Carbon disulfide	ppbv	ND	0.200	0.102	02/24/22 09:57	
Carbon tetrachloride	ppbv	ND	0.200	0.0732	02/24/22 09:57	
Chlorobenzene	ppbv	ND	0.200	0.0832	02/24/22 09:57	
Chloroethane	ppbv	ND	0.200	0.0996	02/24/22 09:57	
Chloroform	ppbv	ND	0.200	0.0717	02/24/22 09:57	
Chloromethane	ppbv	ND	0.200	0.103	02/24/22 09:57	
2-Chlorotoluene	ppbv	ND	0.200	0.0828	02/24/22 09:57	
Cyclohexane	ppbv	ND	0.200	0.0753	02/24/22 09:57	
Dibromochloromethane	ppbv	ND	0.200	0.0727	02/24/22 09:57	
1,2-Dibromoethane (EDB)	ppbv	ND	0.200	0.0721	02/24/22 09:57	
1,2-Dichlorobenzene	ppbv	ND	0.200	0.128	02/24/22 09:57	
1,3-Dichlorobenzene	ppbv	ND	0.200	0.182	02/24/22 09:57	
1,4-Dichlorobenzene	ppbv	ND	0.200	0.0557	02/24/22 09:57	
1,2-Dichloroethane	ppbv	ND	0.200	0.0700	02/24/22 09:57	
1,1-Dichloroethane	ppbv	ND	0.200	0.0723	02/24/22 09:57	
1,1-Dichloroethene	ppbv	ND	0.200	0.0762	02/24/22 09:57	
cis-1,2-Dichloroethene	ppbv	ND	0.200	0.0784	02/24/22 09:57	
trans-1,2-Dichloroethene	ppbv	ND	0.200	0.0673	02/24/22 09:57	
1,2-Dichloropropane	ppbv	ND	0.200	0.0760	02/24/22 09:57	
cis-1,3-Dichloropropene	ppbv	ND	0.200	0.0689	02/24/22 09:57	
trans-1,3-Dichloropropene	ppbv	ND	0.200	0.0728	02/24/22 09:57	
1,4-Dioxane (p-Dioxane)	ppbv	ND	0.200	0.0833	02/24/22 09:57	
Ethylbenzene	ppbv	ND	0.200	0.0835	02/24/22 09:57	
4-Ethyltoluene	ppbv	ND	0.200	0.0783	02/24/22 09:57	
Trichlorofluoromethane	ppbv	ND	0.200	0.0819	02/24/22 09:57	
Dichlorodifluoromethane	ppbv	ND	0.200	0.137	02/24/22 09:57	
1,1,2-Trichlorotrifluoroethane	ppbv	ND	0.200	0.0793	02/24/22 09:57	
Dichlorotetrafluoroethane	ppbv	ND	0.200	0.0890	02/24/22 09:57	
n-Heptane	ppbv	ND	0.200	0.104	02/24/22 09:57	
Hexachloro-1,3-butadiene	ppbv	ND	0.630	0.105	02/24/22 09:57	
n-Hexane	ppbv	ND	0.630	0.206	02/24/22 09:57	
Isopropylbenzene (Cumene)	ppbv	ND	0.200	0.0777	02/24/22 09:57	

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.: 92589442

METHOD BLANK: R3763566-3

Matrix: Air

Associated Lab Samples: 92589442001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Methylene Chloride	ppbv	ND	0.200	0.0979	02/24/22 09:57	
2-Hexanone	ppbv	ND	1.25	0.133	02/24/22 09:57	
2-Butanone (MEK)	ppbv	ND	1.25	0.0814	02/24/22 09:57	
4-Methyl-2-pentanone (MIBK)	ppbv	ND	1.25	0.0765	02/24/22 09:57	
Methyl methacrylate	ppbv	ND	0.200	0.0876	02/24/22 09:57	
Methyl-tert-butyl ether	ppbv	ND	0.200	0.0647	02/24/22 09:57	
Naphthalene	ppbv	ND	0.630	0.350	02/24/22 09:57	
2-Propanol	ppbv	ND	1.25	0.264	02/24/22 09:57	
Propylene	ppbv	ND	1.25	0.0932	02/24/22 09:57	
Styrene	ppbv	ND	0.200	0.0788	02/24/22 09:57	
1,1,2,2-Tetrachloroethane	ppbv	ND	0.200	0.0743	02/24/22 09:57	
Tetrachloroethene	ppbv	ND	0.200	0.0814	02/24/22 09:57	
Tetrahydrofuran	ppbv	ND	0.200	0.0734	02/24/22 09:57	
Toluene	ppbv	ND	0.500	0.0870	02/24/22 09:57	
1,2,4-Trichlorobenzene	ppbv	ND	0.630	0.148	02/24/22 09:57	
1,1,1-Trichloroethane	ppbv	ND	0.200	0.0736	02/24/22 09:57	
1,1,2-Trichloroethane	ppbv	ND	0.200	0.0775	02/24/22 09:57	
Trichloroethene	ppbv	ND	0.200	0.0680	02/24/22 09:57	
1,2,4-Trimethylbenzene	ppbv	ND	0.200	0.0764	02/24/22 09:57	
1,3,5-Trimethylbenzene	ppbv	ND	0.200	0.0779	02/24/22 09:57	
2,2,4-Trimethylpentane	ppbv	ND	0.200	0.133	02/24/22 09:57	
Vinyl chloride	ppbv	ND	0.200	0.0949	02/24/22 09:57	
Vinyl bromide	ppbv	ND	0.200	0.0852	02/24/22 09:57	
Vinyl acetate	ppbv	ND	0.200	0.116	02/24/22 09:57	
m&p-Xylene	ppbv	ND	0.400	0.135	02/24/22 09:57	
o-Xylene	ppbv	ND	0.200	0.0828	02/24/22 09:57	
Ethanol	ppbv	ND	1.25	0.265	02/24/22 09:57	
1,4-Dichlorobenzene-d4 (IS)	%	96.9	60.0-140		02/24/22 09:57	

LABORATORY CONTROL SAMPLE & LCSD: R3763566-1

R3763566-2

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Ethanol	ppbv	3.75	4.02	4.03	107	107	55.0-148	0.248	25	
Propylene	ppbv	3.75	3.68	3.87	98.1	103	64.0-144	5.03	25	
Dichlorodifluoromethane	ppbv	3.75	3.86	3.80	103	101	64.0-139	1.57	25	
Dichlorotetrafluoroethane	ppbv	3.75	3.93	3.79	105	101	70.0-130	3.63	25	
Chloromethane	ppbv	3.75	3.79	3.73	101	99.5	70.0-130	1.60	25	
Vinyl chloride	ppbv	3.75	3.79	3.72	101	99.2	70.0-130	1.86	25	
1,3-Butadiene	ppbv	3.75	3.71	3.58	98.9	95.5	70.0-130	3.57	25	
Bromomethane	ppbv	3.75	3.88	3.77	103	101	70.0-130	2.88	25	
Chloroethane	ppbv	3.75	3.92	3.60	105	96.0	70.0-130	8.51	25	
Trichlorofluoromethane	ppbv	3.75	3.84	3.82	102	102	70.0-130	0.522	25	
1,1,2-Trichlorotrifluoroethane	ppbv	3.75	3.86	3.81	103	102	70.0-130	1.30	25	
1,1-Dichloroethene	ppbv	3.75	3.82	3.78	102	101	70.0-130	1.05	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CITY OF BRISTOL

Pace Project No.: 92589442

LABORATORY CONTROL SAMPLE & LCSD: R3763566-1			R3763566-2							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1-Dichloroethane	ppbv	3.75	3.91	3.79	104	101	70.0-130	3.12	25	
Acetone	ppbv	3.75	3.74	3.67	99.7	97.9	70.0-130	1.89	25	
2-Propanol	ppbv	3.75	3.92	3.79	105	101	70.0-139	3.37	25	
Carbon disulfide	ppbv	3.75	3.94	3.86	105	103	70.0-130	2.05	25	
Methylene Chloride	ppbv	3.75	3.71	3.72	98.9	99.2	70.0-130	0.269	25	
Methyl-tert-butyl ether	ppbv	3.75	3.90	3.84	104	102	70.0-130	1.55	25	
trans-1,2-Dichloroethene	ppbv	3.75	3.93	3.81	105	102	70.0-130	3.10	25	
n-Hexane	ppbv	3.75	3.71	3.78	98.9	101	70.0-130	1.87	25	
Vinyl acetate	ppbv	3.75	3.70	3.80	98.7	101	70.0-130	2.67	25	
2-Butanone (MEK)	ppbv	3.75	3.81	3.77	102	101	70.0-130	1.06	25	
cis-1,2-Dichloroethene	ppbv	3.75	3.90	3.75	104	100	70.0-130	3.92	25	
Chloroform	ppbv	3.75	3.88	3.82	103	102	70.0-130	1.56	25	
Cyclohexane	ppbv	3.75	3.66	3.67	97.6	97.9	70.0-130	0.273	25	
1,1,1-Trichloroethane	ppbv	3.75	3.95	3.88	105	103	70.0-130	1.79	25	
Carbon tetrachloride	ppbv	3.75	3.99	3.88	106	103	70.0-130	2.80	25	
Benzene	ppbv	3.75	3.87	3.91	103	104	70.0-130	1.03	25	
1,2-Dichloroethane	ppbv	3.75	3.70	3.72	98.7	99.2	70.0-130	0.539	25	
n-Heptane	ppbv	3.75	3.70	3.65	98.7	97.3	70.0-130	1.36	25	
Trichloroethene	ppbv	3.75	3.84	3.88	102	103	70.0-130	1.04	25	
1,2-Dichloropropane	ppbv	3.75	3.82	3.81	102	102	70.0-130	0.262	25	
1,4-Dioxane (p-Dioxane)	ppbv	3.75	4.02	3.90	107	104	70.0-140	3.03	25	
Bromodichloromethane	ppbv	3.75	3.90	3.82	104	102	70.0-130	2.07	25	
cis-1,3-Dichloropropene	ppbv	3.75	3.74	3.80	99.7	101	70.0-130	1.59	25	
4-Methyl-2-pentanone (MIBK)	ppbv	3.75	3.88	3.77	103	101	70.0-139	2.88	25	
Toluene	ppbv	3.75	3.81	3.81	102	102	70.0-130	0.00	25	
trans-1,3-Dichloropropene	ppbv	3.75	3.86	4.03	103	107	70.0-130	4.31	25	
1,1,2-Trichloroethane	ppbv	3.75	3.80	3.79	101	101	70.0-130	0.264	25	
Tetrachloroethene	ppbv	3.75	3.81	3.83	102	102	70.0-130	0.524	25	
2-Hexanone	ppbv	3.75	4.01	4.00	107	107	70.0-149	0.250	25	
Dibromochloromethane	ppbv	3.75	3.95	3.90	105	104	70.0-130	1.27	25	
1,2-Dibromoethane (EDB)	ppbv	3.75	3.94	4.05	105	108	70.0-130	2.75	25	
Chlorobenzene	ppbv	3.75	3.83	3.87	102	103	70.0-130	1.04	25	
Ethylbenzene	ppbv	3.75	3.94	3.86	105	103	70.0-130	2.05	25	
m&p-Xylene	ppbv	7.50	7.44	7.41	99.2	98.8	70.0-130	0.404	25	
o-Xylene	ppbv	3.75	3.83	3.84	102	102	70.0-130	0.261	25	
Styrene	ppbv	3.75	4.00	3.96	107	106	70.0-130	1.01	25	
Bromoform	ppbv	3.75	3.78	3.80	101	101	70.0-130	0.528	25	
1,1,2,2-Tetrachloroethane	ppbv	3.75	3.85	3.83	103	102	70.0-130	0.521	25	
4-Ethyltoluene	ppbv	3.75	4.03	3.96	107	106	70.0-130	1.75	25	
1,3,5-Trimethylbenzene	ppbv	3.75	3.72	3.77	99.2	101	70.0-130	1.34	25	
1,2,4-Trimethylbenzene	ppbv	3.75	3.80	3.76	101	100	70.0-130	1.06	25	
1,3-Dichlorobenzene	ppbv	3.75	3.67	3.72	97.9	99.2	70.0-130	1.35	25	
1,4-Dichlorobenzene	ppbv	3.75	3.70	3.68	98.7	98.1	70.0-130	0.542	25	
Benzyl chloride	ppbv	3.75	4.31	4.24	115	113	70.0-152	1.64	25	
1,2-Dichlorobenzene	ppbv	3.75	3.82	3.77	102	101	70.0-130	1.32	25	
1,2,4-Trichlorobenzene	ppbv	3.75	3.82	3.84	102	102	70.0-160	0.522	25	
Hexachloro-1,3-butadiene	ppbv	3.75	3.58	3.56	95.5	94.9	70.0-151	0.560	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CITY OF BRISTOL

Pace Project No.: 92589442

LABORATORY CONTROL SAMPLE & LCSD: R3763566-1			R3763566-2							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Naphthalene	ppbv	3.75	3.67	3.70	97.9	98.7	70.0-159	0.814	25	
Allyl chloride	ppbv	3.75	3.74	3.60	99.7	96.0	70.0-130	3.81	25	
2-Chlorotoluene	ppbv	3.75	3.77	3.83	101	102	70.0-130	1.58	25	
Methyl methacrylate	ppbv	3.75	3.86	3.80	103	101	70.0-130	1.57	25	
Tetrahydrofuran	ppbv	3.75	3.97	3.89	106	104	70.0-137	2.04	25	
2,2,4-Trimethylpentane	ppbv	3.75	3.82	3.78	102	101	70.0-130	1.05	25	
Vinyl bromide	ppbv	3.75	3.93	3.87	105	103	70.0-130	1.54	25	
Isopropylbenzene (Cumene)	ppbv	3.75	3.93	3.80	105	101	70.0-130	3.36	25	
1,4-Dichlorobenzene-d4 (IS)	%				99.5	99.1	60.0-140			

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: CITY OF BRISTOL
Pace Project No.: 92589442

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.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CITY OF BRISTOL

Pace Project No.: 92589442

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92589442001	FEBRUARY 24-HR	TO-15	1823114	TO-15	1823114

REPORT OF LABORATORY ANALYSIS

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Company Name/Address:
Pace Analytical - Huntersville, NC

9800 Kinsey Avenue, Suite 100
Huntersville, NC 28078

Billing Information:
Accounts Payable
9800 Kinsey Ave., Ste. 100
Huntersville, NC 28078

WO# : 92589442



92589442

Chain of Custody Page ____ of ____



MT JULIET, TN

12045 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/hubd/pas-standard-terms.pdf>

Report To:
Tyler Forney

Email To:
Tyler.Forney@pacelabs.com

Project City of Bristol
Description:

City/State
Collected:

Please Circle:
PT MT CT ET

Phone:
704-875-9092

Client Project #
FEBRUARY 24-HR

Lab Project #
PACE-FORNEYVA

Collected by (print):
ZAC MITCHELL

Site/Facility ID #

P.O. #

Collected by (signature):
Zac Mitchell

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

FEBRUARY 24-HR

012017

260-2/21

10:13AM

27.0

0

Remarks:

Samples returned via:
____ UPS ____ FedEx ____ Courier

Tracking #

Hold #

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Date:

Time:

Condition

(Lab use only)

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Date:

Time:

Condition

(Lab use only)

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date:

Time:

Condition

(Lab use only)

	Document Name:	Document Revised: November 15, 2021
	Sample Condition Upon Receipt (SCUR)	Page 1 of 2
	Document No.:	Issuing Authority:
	F-CAR-CS-033-Rev.08	Pace Carolina Quality Office

Laboratory receiving samples:

Asheville ☒ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Sample Condition
Upon Receipt

Client Name:

Pace Huntersville

Project #:

Carrier:

☐ Commercial☐ Fed Ex☐ UPS☐ USPS☐ Client☒ Pace☐ Other:

Custody Seal Present?

☐ Yes☒ No

Seals Intact?

☐ Yes☒ NoDate/Initials Person Examining Contents: mf 2-22-22

Packing Material:

☐ Bubble Wrap☐ Bubble Bags☒ None☐ Other

Thermometer:

☒ IR Gun ID:N/A

Type of Ice:

☐ Wet☐ Blue☒ None

Biological Tissue Frozen?

☐ Yes☐ No☒ N/A

Cooler Temp:

N/A

Correction Factor:

Add/Subtract (°C)

N/A

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C):

airN/AUSDA Regulated Soil (☒ N/A, ☐ water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

☐ Yes ☐ NoDid samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

		Comments/Discrepancy:
Chain of Custody Present?	☒ Yes ☐ No ☐ N/A	1.
Samples Arrived within Hold Time?	☒ Yes ☐ No ☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes ☒ No ☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes ☒ No ☐ N/A	4.
Sufficient Volume?	☒ Yes ☐ No ☐ N/A	5.
Correct Containers Used?	☒ Yes ☐ No ☐ N/A	6.
Pace Containers Used?	☒ Yes ☐ No ☐ N/A	
Containers Intact?	☒ Yes ☐ No ☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes ☐ No ☒ N/A	8.
Sample Labels Match COC?	☒ Yes ☐ No ☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>OT</u>		
Headspace in VOA Vials (>5.6mm)?	☐ Yes ☐ No ☒ N/A	10.
Trip Blank Present?	☐ Yes ☐ No ☒ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes ☐ No ☒ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted:

Date/Time:

Project Manager SCURF Review:

Date:

Project Manager SRF Review:

Date:

	Document Name:	Document Revised: November 15, 2021
	Sample Condition Upon Receipt (SCUR)	Page 2 of 2
	Document No.:	Issuing Authority:
	P-CAR-CS-033-Rev.06	Pace Carolinas Quality Office

*check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TDC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottles

Project #

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic 2N Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2SO3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (3 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (N/A) (9.3-9.7)	AGDU-100 mL Amber Unpreserved vials (N/A)	VSGU-20-mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1																												
2																												
3																												
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5																												
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8																												
9																												
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

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).