

## Pelton, Jason M (DEC)

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**From:** Stan Carey <scarey@massapequawater.com>  
**Sent:** Thursday, November 14, 2019 4:30 PM  
**To:** Pelton, Jason M (DEC)  
**Subject:** FW: VOC/1,4-DIOX/PFAS 10/30 (Pace Project # 70110259)  
**Attachments:** 70110259\_NY.pdf; 70110259\_frc.pdf

*ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.*

Jason,  
These are the first set of split sample results. They all look good.

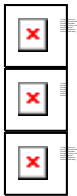
Thank you,

Stan Carey, Superintendent  
Massapequa Water District



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**From:** Paceport Email Notification [mailto:stu.murrell@pacelabs.com]  
**Sent:** Thursday, November 14, 2019 8:48 AM  
**To:** stu.murrell@pacelabs.com; Stan Carey; jtodaro@h2m.com; John Speciale  
**Subject:** VOC/1,4-DIOX/PFAS 10/30 (Pace Project # 70110259)



[Paceport Login](#)

## Pace Automated Email Notification

This email contains EDDs and Reports generated by Paceport's automated deliverable service. The attached files have been authorized to be sent to you due to the completion of project 70110259. Your Pace project manager has been CC'ed on this email so that you may request any further assistance.

To access this project's page in paceport click on the following link.

<http://paceport.pacelabs.com/ClientPortal/mvc/projectDetails/modelAndView?projectId=70110259&systemID=lims70>

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November 14, 2019

Stan Carey  
Massapequa Water District  
84 Grand Ave.  
Massapequa, NY 11758

RE: Project: VOC/1,4-DIOX/PFAS 10/30  
Pace Project No.: 70110259

Dear Stan Carey:

Enclosed are the analytical results for sample(s) received by the laboratory on October 30, 2019. 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.

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

Sincerely,



Stu Murrell  
stu.murrell@pacelabs.com  
(631)694-3040  
Project Manager

Enclosures

cc: John Speciale, Massapequa Water District  
Joe Todaro, H2M Group



## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
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## CERTIFICATIONS

Project: VOC/1,4-DIOX/PFAS 10/30

Pace Project No.: 70110259

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### Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174

Alaska DEC- CS/UST/LUST

Alabama Certification #: 41320

Arizona Certification# AZ0819

Colorado Certification: FL NELAC Reciprocity

Connecticut Certification #: PH-0216

Delaware Certification: FL NELAC Reciprocity

Florida Certification #: E83079

Georgia Certification #: 955

Guam Certification: FL NELAC Reciprocity

Hawaii Certification: FL NELAC Reciprocity

Illinois Certification #: 200068

Indiana Certification: FL NELAC Reciprocity

Kansas Certification #: E-10383

Kentucky Certification #: 90050

Louisiana Certification #: FL NELAC Reciprocity

Louisiana Environmental Certificate #: 05007

Maryland Certification: #346

Michigan Certification #: 9911

Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 236

Montana Certification #: Cert 0074

Nebraska Certification: NE-OS-28-14

New Hampshire Certification #: 2958

New Jersey Certification #: FL022

New York Certification #: 11608

North Carolina Environmental Certificate #: 667

North Carolina Certification #: 12710

North Dakota Certification #: R-216

Oklahoma Certification #: D9947

Pennsylvania Certification #: 68-00547

Puerto Rico Certification #: FL01264

South Carolina Certification: #96042001

Tennessee Certification #: TN02974

Texas Certification: FL NELAC Reciprocity

US Virgin Islands Certification: FL NELAC Reciprocity

Virginia Environmental Certification #: 460165

West Virginia Certification #: 9962C

Wisconsin Certification #: 399079670

Wyoming (EPA Region 8): FL NELAC Reciprocity

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### Long Island Certification IDs

575 Broad Hollow Rd, Melville, NY 11747

New York Certification #: 10478 Primary Accrediting Body

New Jersey Certification #: NY158

Pennsylvania Certification #: 68-00350

Connecticut Certification #: PH-0435

Maryland Certification #: 208

Rhode Island Certification #: LAO00340

Massachusetts Certification #: M-NY026

New Hampshire Certification #: 2987

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: VOC/1,4-DIOX/PFAS 10/30

Pace Project No.: 70110259

Lab ID	Sample ID	Matrix	Date Collected	Date Received
70110259001	BPOW 6-6	Drinking Water	10/30/19 11:40	10/30/19 14:22
70110259002	BPOW 6-5	Drinking Water	10/30/19 11:50	10/30/19 14:22
70110259003	BPOW 6-3	Drinking Water	10/30/19 12:30	10/30/19 14:22
70110259004	BPOW 6-4	Drinking Water	10/30/19 12:45	10/30/19 14:22

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### SAMPLE ANALYTE COUNT

Project: VOC/1,4-DIOX/PFAS 10/30

Pace Project No.: 70110259

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
70110259001	BPOW 6-6	EPA 537	SWR	10	PASI-O
		EPA 522	TJD	2	PACE-MV
		EPA 524.2	KGG	62	PACE-MV
70110259002	BPOW 6-5	EPA 537	SWR	10	PASI-O
		EPA 522	TJD	2	PACE-MV
		EPA 524.2	KGG	62	PACE-MV
70110259003	BPOW 6-3	EPA 537	SWR	10	PASI-O
		EPA 522	TJD	2	PACE-MV
		EPA 524.2	KGG	62	PACE-MV
70110259004	BPOW 6-4	EPA 537	SWR	10	PASI-O
		EPA 522	TJD	2	PACE-MV
		EPA 524.2	KGG	62	PACE-MV

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: VOC/1,4-DIOX/PFAS 10/30

Pace Project No.: 70110259

**Sample: BPOW 6-6**      **Lab ID: 70110259001**      Collected: 10/30/19 11:40      Received: 10/30/19 14:22      Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>537 PFOA Compounds, Water</b> Analytical Method: EPA 537      Preparation Method: EPA 537									
Perfluorobutanesulfonic acid	<1.8	ng/L	1.8		1	11/07/19 09:00	11/12/19 04:05	375-73-5	
Perfluoroheptanoic acid	<1.8	ng/L	1.8		1	11/07/19 09:00	11/12/19 04:05	375-85-9	
Perfluorohexanesulfonic acid	<1.8	ng/L	1.8		1	11/07/19 09:00	11/12/19 04:05	355-46-4	
Perfluorononanoic acid	<1.8	ng/L	1.8		1	11/07/19 09:00	11/12/19 04:05	375-95-1	
Perfluorooctanesulfonic acid	<1.8	ng/L	1.8	10	1	11/07/19 09:00	11/12/19 04:05	1763-23-1	
Perfluorooctanoic acid	<1.8	ng/L	1.8	10	1	11/07/19 09:00	11/12/19 04:05	335-67-1	
<b>Surrogates</b>									
13C2-PFDA (S)	102	%	70-130		1	11/07/19 09:00	11/12/19 04:05		
13C2-PFHxA (S)	117	%	70-130		1	11/07/19 09:00	11/12/19 04:05		
NEtFOSAA-d5 (S)	102	%	70-130		1	11/07/19 09:00	11/12/19 04:05		
HFPO-DAS (S)	106	%	70-130		1	11/07/19 09:00	11/12/19 04:05		
<b>522 MSS 1,4 Dioxane (SIM)</b> Analytical Method: EPA 522      Preparation Method: EPA 522									
1,4-Dioxane (p-Dioxane)	<0.020	ug/L	0.020		1	11/04/19 08:59	11/05/19 09:58	123-91-1	
<b>Surrogates</b>									
1,4-Dioxane-d8 (S)	83	%	70-130		1	11/04/19 08:59	11/05/19 09:58		
<b>524.2 MSV</b> Analytical Method: EPA 524.2									
Benzene	<0.50	ug/L	0.50		1		11/03/19 16:07	71-43-2	
Bromobenzene	<0.50	ug/L	0.50		1		11/03/19 16:07	108-86-1	
Bromochloromethane	<0.50	ug/L	0.50		1		11/03/19 16:07	74-97-5	
Bromodichloromethane	<0.50	ug/L	0.50		1		11/03/19 16:07	75-27-4	
Bromoform	<0.50	ug/L	0.50		1		11/03/19 16:07	75-25-2	
Bromomethane	<0.50	ug/L	0.50		1		11/03/19 16:07	74-83-9	L1
n-Butylbenzene	<0.50	ug/L	0.50		1		11/03/19 16:07	104-51-8	
sec-Butylbenzene	<0.50	ug/L	0.50		1		11/03/19 16:07	135-98-8	
tert-Butylbenzene	<0.50	ug/L	0.50		1		11/03/19 16:07	98-06-6	
Carbon tetrachloride	<0.50	ug/L	0.50		1		11/03/19 16:07	56-23-5	
Chlorobenzene	<0.50	ug/L	0.50		1		11/03/19 16:07	108-90-7	
Chlorodifluoromethane	<0.50	ug/L	0.50		1		11/03/19 16:07	75-45-6	L2,N3
Chloroethane	<0.50	ug/L	0.50		1		11/03/19 16:07	75-00-3	
Chloroform	<0.50	ug/L	0.50		1		11/03/19 16:07	67-66-3	
Chloromethane	<0.50	ug/L	0.50		1		11/03/19 16:07	74-87-3	CL
2-Chlorotoluene	<0.50	ug/L	0.50		1		11/03/19 16:07	95-49-8	
4-Chlorotoluene	<0.50	ug/L	0.50		1		11/03/19 16:07	106-43-4	
Dibromochloromethane	<0.50	ug/L	0.50		1		11/03/19 16:07	124-48-1	
Dibromomethane	<0.50	ug/L	0.50		1		11/03/19 16:07	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	0.50		1		11/03/19 16:07	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	0.50		1		11/03/19 16:07	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	0.50		1		11/03/19 16:07	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	0.50		1		11/03/19 16:07	75-71-8	
1,1-Dichloroethane	<0.50	ug/L	0.50		1		11/03/19 16:07	75-34-3	
1,2-Dichloroethane	<0.50	ug/L	0.50		1		11/03/19 16:07	107-06-2	
1,1-Dichloroethene	<0.50	ug/L	0.50		1		11/03/19 16:07	75-35-4	
cis-1,2-Dichloroethene	<0.50	ug/L	0.50		1		11/03/19 16:07	156-59-2	
trans-1,2-Dichloroethene	<0.50	ug/L	0.50		1		11/03/19 16:07	156-60-5	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: VOC/1,4-DIOX/PFAS 10/30

Pace Project No.: 70110259

Sample: BPOW 6-6      Lab ID: 70110259001      Collected: 10/30/19 11:40      Received: 10/30/19 14:22      Matrix: Drinking Water									
Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>524.2 MSV</b> Analytical Method: EPA 524.2									
1,2-Dichloropropane	<0.50	ug/L	0.50		1		11/03/19 16:07	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	0.50		1		11/03/19 16:07	142-28-9	
2,2-Dichloropropane	<0.50	ug/L	0.50		1		11/03/19 16:07	594-20-7	
1,1-Dichloropropene	<0.50	ug/L	0.50		1		11/03/19 16:07	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	0.50		1		11/03/19 16:07	10061-01-5	
trans-1,3-Dichloropropene	<0.50	ug/L	0.50		1		11/03/19 16:07	10061-02-6	
Ethylbenzene	<0.50	ug/L	0.50		1		11/03/19 16:07	100-41-4	
Hexachloro-1,3-butadiene	<0.50	ug/L	0.50		1		11/03/19 16:07	87-68-3	
Isopropylbenzene (Cumene)	<0.50	ug/L	0.50		1		11/03/19 16:07	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	0.50		1		11/03/19 16:07	99-87-6	
Methylene Chloride	<0.50	ug/L	0.50		1		11/03/19 16:07	75-09-2	
Methyl-tert-butyl ether	<0.50	ug/L	0.50		1		11/03/19 16:07	1634-04-4	L1
n-Propylbenzene	<0.50	ug/L	0.50		1		11/03/19 16:07	103-65-1	
Styrene	<0.50	ug/L	0.50		1		11/03/19 16:07	100-42-5	
1,1,1,2-Tetrachloroethane	<0.50	ug/L	0.50		1		11/03/19 16:07	630-20-6	
1,1,2,2-Tetrachloroethane	<0.50	ug/L	0.50		1		11/03/19 16:07	79-34-5	
Tetrachloroethene	<0.50	ug/L	0.50		1		11/03/19 16:07	127-18-4	
Toluene	<0.50	ug/L	0.50		1		11/03/19 16:07	108-88-3	
Total Trihalomethanes (Calc.)	<0.50	ug/L	0.50		1		11/03/19 16:07		
1,2,3-Trichlorobenzene	<0.50	ug/L	0.50		1		11/03/19 16:07	87-61-6	
1,2,4-Trichlorobenzene	<0.50	ug/L	0.50		1		11/03/19 16:07	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	0.50		1		11/03/19 16:07	71-55-6	
1,1,2-Trichloroethane	<0.50	ug/L	0.50		1		11/03/19 16:07	79-00-5	
Trichloroethene	<0.50	ug/L	0.50		1		11/03/19 16:07	79-01-6	
Trichlorofluoromethane	<0.50	ug/L	0.50		1		11/03/19 16:07	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	0.50		1		11/03/19 16:07	96-18-4	
1,1,2-Trichlorotrifluoroethane	<0.50	ug/L	0.50		1		11/03/19 16:07	76-13-1	N3
1,2,4-Trimethylbenzene	<0.50	ug/L	0.50		1		11/03/19 16:07	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	0.50		1		11/03/19 16:07	108-67-8	
Vinyl chloride	<0.50	ug/L	0.50		1		11/03/19 16:07	75-01-4	
m&p-Xylene	<0.50	ug/L	0.50		1		11/03/19 16:07	179601-23-1	
o-Xylene	<0.50	ug/L	0.50		1		11/03/19 16:07	95-47-6	
<b>Surrogates</b>									
1,2-Dichlorobenzene-d4 (S)	90	%	70-130		1		11/03/19 16:07	2199-69-1	
4-Bromofluorobenzene (S)	89	%	70-130		1		11/03/19 16:07	460-00-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: VOC/1,4-DIOX/PFAS 10/30  
Pace Project No.: 70110259

**Sample: BPOW 6-5**      **Lab ID: 70110259002**      Collected: 10/30/19 11:50      Received: 10/30/19 14:22      Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>537 PFOA Compounds, Water</b> Analytical Method: EPA 537      Preparation Method: EPA 537									
Perfluorobutanesulfonic acid	<1.8	ng/L	1.8		1	11/07/19 09:00	11/12/19 04:23	375-73-5	
Perfluoroheptanoic acid	<1.8	ng/L	1.8		1	11/07/19 09:00	11/12/19 04:23	375-85-9	
Perfluorohexanesulfonic acid	<1.8	ng/L	1.8		1	11/07/19 09:00	11/12/19 04:23	355-46-4	
Perfluorononanoic acid	<1.8	ng/L	1.8		1	11/07/19 09:00	11/12/19 04:23	375-95-1	
Perfluorooctanesulfonic acid	<1.8	ng/L	1.8	10	1	11/07/19 09:00	11/12/19 04:23	1763-23-1	
Perfluorooctanoic acid	<1.8	ng/L	1.8	10	1	11/07/19 09:00	11/12/19 04:23	335-67-1	
<b>Surrogates</b>									
13C2-PFDA (S)	103	%	70-130		1	11/07/19 09:00	11/12/19 04:23		
13C2-PFHxA (S)	113	%	70-130		1	11/07/19 09:00	11/12/19 04:23		
NEtFOSAA-d5 (S)	98	%	70-130		1	11/07/19 09:00	11/12/19 04:23		
HFPO-DAS (S)	101	%	70-130		1	11/07/19 09:00	11/12/19 04:23		
<b>522 MSS 1,4 Dioxane (SIM)</b> Analytical Method: EPA 522      Preparation Method: EPA 522									
1,4-Dioxane (p-Dioxane)	0.028	ug/L	0.020		1	11/04/19 08:59	11/05/19 10:40	123-91-1	
<b>Surrogates</b>									
1,4-Dioxane-d8 (S)	81	%	70-130		1	11/04/19 08:59	11/05/19 10:40		
<b>524.2 MSV</b> Analytical Method: EPA 524.2									
Benzene	<0.50	ug/L	0.50		1		11/03/19 16:34	71-43-2	
Bromobenzene	<0.50	ug/L	0.50		1		11/03/19 16:34	108-86-1	
Bromochloromethane	<0.50	ug/L	0.50		1		11/03/19 16:34	74-97-5	
Bromodichloromethane	<0.50	ug/L	0.50		1		11/03/19 16:34	75-27-4	
Bromoform	<0.50	ug/L	0.50		1		11/03/19 16:34	75-25-2	
Bromomethane	<0.50	ug/L	0.50		1		11/03/19 16:34	74-83-9	L1
n-Butylbenzene	<0.50	ug/L	0.50		1		11/03/19 16:34	104-51-8	
sec-Butylbenzene	<0.50	ug/L	0.50		1		11/03/19 16:34	135-98-8	
tert-Butylbenzene	<0.50	ug/L	0.50		1		11/03/19 16:34	98-06-6	
Carbon tetrachloride	<0.50	ug/L	0.50		1		11/03/19 16:34	56-23-5	
Chlorobenzene	<0.50	ug/L	0.50		1		11/03/19 16:34	108-90-7	
Chlorodifluoromethane	<0.50	ug/L	0.50		1		11/03/19 16:34	75-45-6	L2,N3
Chloroethane	<0.50	ug/L	0.50		1		11/03/19 16:34	75-00-3	
Chloroform	<0.50	ug/L	0.50		1		11/03/19 16:34	67-66-3	
Chloromethane	<0.50	ug/L	0.50		1		11/03/19 16:34	74-87-3	CL
2-Chlorotoluene	<0.50	ug/L	0.50		1		11/03/19 16:34	95-49-8	
4-Chlorotoluene	<0.50	ug/L	0.50		1		11/03/19 16:34	106-43-4	
Dibromochloromethane	<0.50	ug/L	0.50		1		11/03/19 16:34	124-48-1	
Dibromomethane	<0.50	ug/L	0.50		1		11/03/19 16:34	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	0.50		1		11/03/19 16:34	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	0.50		1		11/03/19 16:34	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	0.50		1		11/03/19 16:34	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	0.50		1		11/03/19 16:34	75-71-8	
1,1-Dichloroethane	<0.50	ug/L	0.50		1		11/03/19 16:34	75-34-3	
1,2-Dichloroethane	<0.50	ug/L	0.50		1		11/03/19 16:34	107-06-2	
1,1-Dichloroethene	<0.50	ug/L	0.50		1		11/03/19 16:34	75-35-4	
cis-1,2-Dichloroethene	<0.50	ug/L	0.50		1		11/03/19 16:34	156-59-2	
trans-1,2-Dichloroethene	<0.50	ug/L	0.50		1		11/03/19 16:34	156-60-5	

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### ANALYTICAL RESULTS

Project: VOC/1,4-DIOX/PFAS 10/30

Pace Project No.: 70110259

Sample: BPOW 6-5      Lab ID: 70110259002      Collected: 10/30/19 11:50      Received: 10/30/19 14:22      Matrix: Drinking Water									
Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>524.2 MSV</b> Analytical Method: EPA 524.2									
1,2-Dichloropropane	<0.50	ug/L	0.50		1		11/03/19 16:34	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	0.50		1		11/03/19 16:34	142-28-9	
2,2-Dichloropropane	<0.50	ug/L	0.50		1		11/03/19 16:34	594-20-7	
1,1-Dichloropropene	<0.50	ug/L	0.50		1		11/03/19 16:34	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	0.50		1		11/03/19 16:34	10061-01-5	
trans-1,3-Dichloropropene	<0.50	ug/L	0.50		1		11/03/19 16:34	10061-02-6	
Ethylbenzene	<0.50	ug/L	0.50		1		11/03/19 16:34	100-41-4	
Hexachloro-1,3-butadiene	<0.50	ug/L	0.50		1		11/03/19 16:34	87-68-3	
Isopropylbenzene (Cumene)	<0.50	ug/L	0.50		1		11/03/19 16:34	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	0.50		1		11/03/19 16:34	99-87-6	
Methylene Chloride	<0.50	ug/L	0.50		1		11/03/19 16:34	75-09-2	
Methyl-tert-butyl ether	<0.50	ug/L	0.50		1		11/03/19 16:34	1634-04-4	L1
n-Propylbenzene	<0.50	ug/L	0.50		1		11/03/19 16:34	103-65-1	
Styrene	<0.50	ug/L	0.50		1		11/03/19 16:34	100-42-5	
1,1,1,2-Tetrachloroethane	<0.50	ug/L	0.50		1		11/03/19 16:34	630-20-6	
1,1,2,2-Tetrachloroethane	<0.50	ug/L	0.50		1		11/03/19 16:34	79-34-5	
Tetrachloroethene	<0.50	ug/L	0.50		1		11/03/19 16:34	127-18-4	
Toluene	<0.50	ug/L	0.50		1		11/03/19 16:34	108-88-3	
Total Trihalomethanes (Calc.)	<0.50	ug/L	0.50		1		11/03/19 16:34		
1,2,3-Trichlorobenzene	<0.50	ug/L	0.50		1		11/03/19 16:34	87-61-6	
1,2,4-Trichlorobenzene	<0.50	ug/L	0.50		1		11/03/19 16:34	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	0.50		1		11/03/19 16:34	71-55-6	
1,1,2-Trichloroethane	<0.50	ug/L	0.50		1		11/03/19 16:34	79-00-5	
Trichloroethene	<0.50	ug/L	0.50		1		11/03/19 16:34	79-01-6	
Trichlorofluoromethane	<0.50	ug/L	0.50		1		11/03/19 16:34	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	0.50		1		11/03/19 16:34	96-18-4	
1,1,2-Trichlorotrifluoroethane	<0.50	ug/L	0.50		1		11/03/19 16:34	76-13-1	N3
1,2,4-Trimethylbenzene	<0.50	ug/L	0.50		1		11/03/19 16:34	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	0.50		1		11/03/19 16:34	108-67-8	
Vinyl chloride	<0.50	ug/L	0.50		1		11/03/19 16:34	75-01-4	
m&p-Xylene	<0.50	ug/L	0.50		1		11/03/19 16:34	179601-23-1	
o-Xylene	<0.50	ug/L	0.50		1		11/03/19 16:34	95-47-6	
<b>Surrogates</b>									
1,2-Dichlorobenzene-d4 (S)	87	%	70-130		1		11/03/19 16:34	2199-69-1	
4-Bromofluorobenzene (S)	87	%	70-130		1		11/03/19 16:34	460-00-4	

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## ANALYTICAL RESULTS

Project: VOC/1,4-DIOX/PFAS 10/30

Pace Project No.: 70110259

**Sample: BPOW 6-3**      **Lab ID: 70110259003**      Collected: 10/30/19 12:30      Received: 10/30/19 14:22      Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>537 PFOA Compounds, Water</b> Analytical Method: EPA 537      Preparation Method: EPA 537									
Perfluorobutanesulfonic acid	<1.8	ng/L	1.8		1	11/07/19 09:00	11/12/19 04:41	375-73-5	
Perfluoroheptanoic acid	<1.8	ng/L	1.8		1	11/07/19 09:00	11/12/19 04:41	375-85-9	
Perfluorohexanesulfonic acid	<1.8	ng/L	1.8		1	11/07/19 09:00	11/12/19 04:41	355-46-4	
Perfluorononanoic acid	<1.8	ng/L	1.8		1	11/07/19 09:00	11/12/19 04:41	375-95-1	
Perfluorooctanesulfonic acid	<1.8	ng/L	1.8	10	1	11/07/19 09:00	11/12/19 04:41	1763-23-1	
Perfluorooctanoic acid	<1.8	ng/L	1.8	10	1	11/07/19 09:00	11/12/19 04:41	335-67-1	
<b>Surrogates</b>									
13C2-PFDA (S)	93	%	70-130		1	11/07/19 09:00	11/12/19 04:41		
13C2-PFHxA (S)	104	%	70-130		1	11/07/19 09:00	11/12/19 04:41		
NEtFOSAA-d5 (S)	88	%	70-130		1	11/07/19 09:00	11/12/19 04:41		
HFPO-DAS (S)	93	%	70-130		1	11/07/19 09:00	11/12/19 04:41		
<b>522 MSS 1,4 Dioxane (SIM)</b> Analytical Method: EPA 522      Preparation Method: EPA 522									
1,4-Dioxane (p-Dioxane)	<0.020	ug/L	0.020		1	11/04/19 11:36	11/04/19 19:05	123-91-1	
<b>Surrogates</b>									
1,4-Dioxane-d8 (S)	83	%	70-130		1	11/04/19 11:36	11/04/19 19:05		
<b>524.2 MSV</b> Analytical Method: EPA 524.2									
Benzene	<0.50	ug/L	0.50		1		11/03/19 17:01	71-43-2	
Bromobenzene	<0.50	ug/L	0.50		1		11/03/19 17:01	108-86-1	
Bromochloromethane	<0.50	ug/L	0.50		1		11/03/19 17:01	74-97-5	
Bromodichloromethane	<0.50	ug/L	0.50		1		11/03/19 17:01	75-27-4	
Bromoform	<0.50	ug/L	0.50		1		11/03/19 17:01	75-25-2	
Bromomethane	<0.50	ug/L	0.50		1		11/03/19 17:01	74-83-9	L1
n-Butylbenzene	<0.50	ug/L	0.50		1		11/03/19 17:01	104-51-8	
sec-Butylbenzene	<0.50	ug/L	0.50		1		11/03/19 17:01	135-98-8	
tert-Butylbenzene	<0.50	ug/L	0.50		1		11/03/19 17:01	98-06-6	
Carbon tetrachloride	<0.50	ug/L	0.50		1		11/03/19 17:01	56-23-5	
Chlorobenzene	<0.50	ug/L	0.50		1		11/03/19 17:01	108-90-7	
Chlorodifluoromethane	<0.50	ug/L	0.50		1		11/03/19 17:01	75-45-6	L2,N3
Chloroethane	<0.50	ug/L	0.50		1		11/03/19 17:01	75-00-3	
Chloroform	<0.50	ug/L	0.50		1		11/03/19 17:01	67-66-3	
Chloromethane	<0.50	ug/L	0.50		1		11/03/19 17:01	74-87-3	CL
2-Chlorotoluene	<0.50	ug/L	0.50		1		11/03/19 17:01	95-49-8	
4-Chlorotoluene	<0.50	ug/L	0.50		1		11/03/19 17:01	106-43-4	
Dibromochloromethane	<0.50	ug/L	0.50		1		11/03/19 17:01	124-48-1	
Dibromomethane	<0.50	ug/L	0.50		1		11/03/19 17:01	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	0.50		1		11/03/19 17:01	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	0.50		1		11/03/19 17:01	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	0.50		1		11/03/19 17:01	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	0.50		1		11/03/19 17:01	75-71-8	
1,1-Dichloroethane	<0.50	ug/L	0.50		1		11/03/19 17:01	75-34-3	
1,2-Dichloroethane	<0.50	ug/L	0.50		1		11/03/19 17:01	107-06-2	
1,1-Dichloroethene	<0.50	ug/L	0.50		1		11/03/19 17:01	75-35-4	
cis-1,2-Dichloroethene	<0.50	ug/L	0.50		1		11/03/19 17:01	156-59-2	
trans-1,2-Dichloroethene	<0.50	ug/L	0.50		1		11/03/19 17:01	156-60-5	

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### ANALYTICAL RESULTS

Project: VOC/1,4-DIOX/PFAS 10/30

Pace Project No.: 70110259

Sample: BPOW 6-3      Lab ID: 70110259003      Collected: 10/30/19 12:30      Received: 10/30/19 14:22      Matrix: Drinking Water									
Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>524.2 MSV</b> Analytical Method: EPA 524.2									
1,2-Dichloropropane	<0.50	ug/L	0.50		1		11/03/19 17:01	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	0.50		1		11/03/19 17:01	142-28-9	
2,2-Dichloropropane	<0.50	ug/L	0.50		1		11/03/19 17:01	594-20-7	
1,1-Dichloropropene	<0.50	ug/L	0.50		1		11/03/19 17:01	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	0.50		1		11/03/19 17:01	10061-01-5	
trans-1,3-Dichloropropene	<0.50	ug/L	0.50		1		11/03/19 17:01	10061-02-6	
Ethylbenzene	<0.50	ug/L	0.50		1		11/03/19 17:01	100-41-4	
Hexachloro-1,3-butadiene	<0.50	ug/L	0.50		1		11/03/19 17:01	87-68-3	
Isopropylbenzene (Cumene)	<0.50	ug/L	0.50		1		11/03/19 17:01	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	0.50		1		11/03/19 17:01	99-87-6	
Methylene Chloride	<0.50	ug/L	0.50		1		11/03/19 17:01	75-09-2	
Methyl-tert-butyl ether	<0.50	ug/L	0.50		1		11/03/19 17:01	1634-04-4	L1
n-Propylbenzene	<0.50	ug/L	0.50		1		11/03/19 17:01	103-65-1	
Styrene	<0.50	ug/L	0.50		1		11/03/19 17:01	100-42-5	
1,1,1,2-Tetrachloroethane	<0.50	ug/L	0.50		1		11/03/19 17:01	630-20-6	
1,1,2,2-Tetrachloroethane	<0.50	ug/L	0.50		1		11/03/19 17:01	79-34-5	
Tetrachloroethene	<0.50	ug/L	0.50		1		11/03/19 17:01	127-18-4	
Toluene	<0.50	ug/L	0.50		1		11/03/19 17:01	108-88-3	
Total Trihalomethanes (Calc.)	<0.50	ug/L	0.50		1		11/03/19 17:01		
1,2,3-Trichlorobenzene	<0.50	ug/L	0.50		1		11/03/19 17:01	87-61-6	
1,2,4-Trichlorobenzene	<0.50	ug/L	0.50		1		11/03/19 17:01	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	0.50		1		11/03/19 17:01	71-55-6	
1,1,2-Trichloroethane	<0.50	ug/L	0.50		1		11/03/19 17:01	79-00-5	
Trichloroethene	<0.50	ug/L	0.50		1		11/03/19 17:01	79-01-6	
Trichlorofluoromethane	<0.50	ug/L	0.50		1		11/03/19 17:01	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	0.50		1		11/03/19 17:01	96-18-4	
1,1,2-Trichlorotrifluoroethane	<0.50	ug/L	0.50		1		11/03/19 17:01	76-13-1	N3
1,2,4-Trimethylbenzene	<0.50	ug/L	0.50		1		11/03/19 17:01	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	0.50		1		11/03/19 17:01	108-67-8	
Vinyl chloride	<0.50	ug/L	0.50		1		11/03/19 17:01	75-01-4	
m&p-Xylene	<0.50	ug/L	0.50		1		11/03/19 17:01	179601-23-1	
o-Xylene	<0.50	ug/L	0.50		1		11/03/19 17:01	95-47-6	
<b>Surrogates</b>									
1,2-Dichlorobenzene-d4 (S)	87	%	70-130		1		11/03/19 17:01	2199-69-1	
4-Bromofluorobenzene (S)	83	%	70-130		1		11/03/19 17:01	460-00-4	

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### ANALYTICAL RESULTS

Project: VOC/1,4-DIOX/PFAS 10/30

Pace Project No.: 70110259

Sample: BPOW 6-4 Lab ID: 70110259004 Collected: 10/30/19 12:45 Received: 10/30/19 14:22 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>537 PFOA Compounds, Water</b> Analytical Method: EPA 537 Preparation Method: EPA 537									
Perfluorobutanesulfonic acid	<1.8	ng/L	1.8		1	11/07/19 09:00	11/12/19 04:59	375-73-5	
Perfluoroheptanoic acid	<1.8	ng/L	1.8		1	11/07/19 09:00	11/12/19 04:59	375-85-9	
Perfluorohexanesulfonic acid	<1.8	ng/L	1.8		1	11/07/19 09:00	11/12/19 04:59	355-46-4	
Perfluorononanoic acid	<1.8	ng/L	1.8		1	11/07/19 09:00	11/12/19 04:59	375-95-1	
Perfluorooctanesulfonic acid	<1.8	ng/L	1.8	10	1	11/07/19 09:00	11/12/19 04:59	1763-23-1	
Perfluorooctanoic acid	<1.8	ng/L	1.8	10	1	11/07/19 09:00	11/12/19 04:59	335-67-1	
<b>Surrogates</b>									
13C2-PFDA (S)	102	%	70-130		1	11/07/19 09:00	11/12/19 04:59		
13C2-PFHxA (S)	112	%	70-130		1	11/07/19 09:00	11/12/19 04:59		
NEtFOSAA-d5 (S)	103	%	70-130		1	11/07/19 09:00	11/12/19 04:59		
HFPO-DAS (S)	105	%	70-130		1	11/07/19 09:00	11/12/19 04:59		
<b>522 MSS 1,4 Dioxane (SIM)</b> Analytical Method: EPA 522 Preparation Method: EPA 522									
1,4-Dioxane (p-Dioxane)	0.19	ug/L	0.020		1	11/04/19 11:36	11/04/19 19:49	123-91-1	
<b>Surrogates</b>									
1,4-Dioxane-d8 (S)	82	%	70-130		1	11/04/19 11:36	11/04/19 19:49		
<b>524.2 MSV</b> Analytical Method: EPA 524.2									
Benzene	<0.50	ug/L	0.50		1		11/03/19 17:28	71-43-2	
Bromobenzene	<0.50	ug/L	0.50		1		11/03/19 17:28	108-86-1	
Bromochloromethane	<0.50	ug/L	0.50		1		11/03/19 17:28	74-97-5	
Bromodichloromethane	<0.50	ug/L	0.50		1		11/03/19 17:28	75-27-4	
Bromoform	<0.50	ug/L	0.50		1		11/03/19 17:28	75-25-2	
Bromomethane	<0.50	ug/L	0.50		1		11/03/19 17:28	74-83-9	L1
n-Butylbenzene	<0.50	ug/L	0.50		1		11/03/19 17:28	104-51-8	
sec-Butylbenzene	<0.50	ug/L	0.50		1		11/03/19 17:28	135-98-8	
tert-Butylbenzene	<0.50	ug/L	0.50		1		11/03/19 17:28	98-06-6	
Carbon tetrachloride	<0.50	ug/L	0.50		1		11/03/19 17:28	56-23-5	
Chlorobenzene	<0.50	ug/L	0.50		1		11/03/19 17:28	108-90-7	
Chlorodifluoromethane	<0.50	ug/L	0.50		1		11/03/19 17:28	75-45-6	L2,N3
Chloroethane	<0.50	ug/L	0.50		1		11/03/19 17:28	75-00-3	
Chloroform	<0.50	ug/L	0.50		1		11/03/19 17:28	67-66-3	
Chloromethane	<0.50	ug/L	0.50		1		11/03/19 17:28	74-87-3	CL
2-Chlorotoluene	<0.50	ug/L	0.50		1		11/03/19 17:28	95-49-8	
4-Chlorotoluene	<0.50	ug/L	0.50		1		11/03/19 17:28	106-43-4	
Dibromochloromethane	<0.50	ug/L	0.50		1		11/03/19 17:28	124-48-1	
Dibromomethane	<0.50	ug/L	0.50		1		11/03/19 17:28	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	0.50		1		11/03/19 17:28	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	0.50		1		11/03/19 17:28	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	0.50		1		11/03/19 17:28	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	0.50		1		11/03/19 17:28	75-71-8	
1,1-Dichloroethane	<0.50	ug/L	0.50		1		11/03/19 17:28	75-34-3	
1,2-Dichloroethane	<0.50	ug/L	0.50		1		11/03/19 17:28	107-06-2	
1,1-Dichloroethene	<0.50	ug/L	0.50		1		11/03/19 17:28	75-35-4	
cis-1,2-Dichloroethene	<0.50	ug/L	0.50		1		11/03/19 17:28	156-59-2	
trans-1,2-Dichloroethene	<0.50	ug/L	0.50		1		11/03/19 17:28	156-60-5	

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### ANALYTICAL RESULTS

Project: VOC/1,4-DIOX/PFAS 10/30  
Pace Project No.: 70110259

Sample: BPOW 6-4      Lab ID: 70110259004      Collected: 10/30/19 12:45      Received: 10/30/19 14:22      Matrix: Drinking Water									
Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>524.2 MSV</b> Analytical Method: EPA 524.2									
1,2-Dichloropropane	<0.50	ug/L	0.50		1		11/03/19 17:28	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	0.50		1		11/03/19 17:28	142-28-9	
2,2-Dichloropropane	<0.50	ug/L	0.50		1		11/03/19 17:28	594-20-7	
1,1-Dichloropropene	<0.50	ug/L	0.50		1		11/03/19 17:28	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	0.50		1		11/03/19 17:28	10061-01-5	
trans-1,3-Dichloropropene	<0.50	ug/L	0.50		1		11/03/19 17:28	10061-02-6	
Ethylbenzene	<0.50	ug/L	0.50		1		11/03/19 17:28	100-41-4	
Hexachloro-1,3-butadiene	<0.50	ug/L	0.50		1		11/03/19 17:28	87-68-3	
Isopropylbenzene (Cumene)	<0.50	ug/L	0.50		1		11/03/19 17:28	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	0.50		1		11/03/19 17:28	99-87-6	
Methylene Chloride	<0.50	ug/L	0.50		1		11/03/19 17:28	75-09-2	
Methyl-tert-butyl ether	<0.50	ug/L	0.50		1		11/03/19 17:28	1634-04-4	L1
n-Propylbenzene	<0.50	ug/L	0.50		1		11/03/19 17:28	103-65-1	
Styrene	<0.50	ug/L	0.50		1		11/03/19 17:28	100-42-5	
1,1,1,2-Tetrachloroethane	<0.50	ug/L	0.50		1		11/03/19 17:28	630-20-6	
1,1,2,2-Tetrachloroethane	<0.50	ug/L	0.50		1		11/03/19 17:28	79-34-5	
Tetrachloroethene	<0.50	ug/L	0.50		1		11/03/19 17:28	127-18-4	
Toluene	<0.50	ug/L	0.50		1		11/03/19 17:28	108-88-3	
Total Trihalomethanes (Calc.)	<0.50	ug/L	0.50		1		11/03/19 17:28		
1,2,3-Trichlorobenzene	<0.50	ug/L	0.50		1		11/03/19 17:28	87-61-6	
1,2,4-Trichlorobenzene	<0.50	ug/L	0.50		1		11/03/19 17:28	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	0.50		1		11/03/19 17:28	71-55-6	
1,1,2-Trichloroethane	<0.50	ug/L	0.50		1		11/03/19 17:28	79-00-5	
Trichloroethene	<0.50	ug/L	0.50		1		11/03/19 17:28	79-01-6	
Trichlorofluoromethane	<0.50	ug/L	0.50		1		11/03/19 17:28	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	0.50		1		11/03/19 17:28	96-18-4	
1,1,2-Trichlorotrifluoroethane	<0.50	ug/L	0.50		1		11/03/19 17:28	76-13-1	N3
1,2,4-Trimethylbenzene	<0.50	ug/L	0.50		1		11/03/19 17:28	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	0.50		1		11/03/19 17:28	108-67-8	
Vinyl chloride	<0.50	ug/L	0.50		1		11/03/19 17:28	75-01-4	
m&p-Xylene	<0.50	ug/L	0.50		1		11/03/19 17:28	179601-23-1	
o-Xylene	<0.50	ug/L	0.50		1		11/03/19 17:28	95-47-6	
<b>Surrogates</b>									
1,2-Dichlorobenzene-d4 (S)	86	%	70-130		1		11/03/19 17:28	2199-69-1	
4-Bromofluorobenzene (S)	83	%	70-130		1		11/03/19 17:28	460-00-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: VOC/1,4-DIOX/PFAS 10/30

Pace Project No.: 70110259

QC Batch: 136936 Analysis Method: EPA 524.2

QC Batch Method: EPA 524.2 Analysis Description: 524.2 MSV

Associated Lab Samples: 70110259001, 70110259002, 70110259003, 70110259004

METHOD BLANK: 655474

Matrix: Water

Associated Lab Samples: 70110259001, 70110259002, 70110259003, 70110259004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	11/03/19 11:46	
1,1,1-Trichloroethane	ug/L	<0.50	0.50	11/03/19 11:46	
1,1,2,2-Tetrachloroethane	ug/L	<0.50	0.50	11/03/19 11:46	
1,1,2-Trichloroethane	ug/L	<0.50	0.50	11/03/19 11:46	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.50	0.50	11/03/19 11:46	N3
1,1-Dichloroethane	ug/L	<0.50	0.50	11/03/19 11:46	
1,1-Dichloroethene	ug/L	<0.50	0.50	11/03/19 11:46	
1,1-Dichloropropene	ug/L	<0.50	0.50	11/03/19 11:46	
1,2,3-Trichlorobenzene	ug/L	<0.50	0.50	11/03/19 11:46	
1,2,3-Trichloropropane	ug/L	<0.50	0.50	11/03/19 11:46	
1,2,4-Trichlorobenzene	ug/L	<0.50	0.50	11/03/19 11:46	
1,2,4-Trimethylbenzene	ug/L	<0.50	0.50	11/03/19 11:46	
1,2-Dichlorobenzene	ug/L	<0.50	0.50	11/03/19 11:46	
1,2-Dichloroethane	ug/L	<0.50	0.50	11/03/19 11:46	
1,2-Dichloropropane	ug/L	<0.50	0.50	11/03/19 11:46	
1,3,5-Trimethylbenzene	ug/L	<0.50	0.50	11/03/19 11:46	
1,3-Dichlorobenzene	ug/L	<0.50	0.50	11/03/19 11:46	
1,3-Dichloropropane	ug/L	<0.50	0.50	11/03/19 11:46	
1,4-Dichlorobenzene	ug/L	<0.50	0.50	11/03/19 11:46	
2,2-Dichloropropane	ug/L	<0.50	0.50	11/03/19 11:46	
2-Chlorotoluene	ug/L	<0.50	0.50	11/03/19 11:46	
4-Chlorotoluene	ug/L	<0.50	0.50	11/03/19 11:46	
Benzene	ug/L	<0.50	0.50	11/03/19 11:46	
Bromobenzene	ug/L	<0.50	0.50	11/03/19 11:46	
Bromochloromethane	ug/L	<0.50	0.50	11/03/19 11:46	
Bromodichloromethane	ug/L	<0.50	0.50	11/03/19 11:46	
Bromoform	ug/L	<0.50	0.50	11/03/19 11:46	
Bromomethane	ug/L	<0.50	0.50	11/03/19 11:46	
Carbon tetrachloride	ug/L	<0.50	0.50	11/03/19 11:46	
Chlorobenzene	ug/L	<0.50	0.50	11/03/19 11:46	
Chlorodifluoromethane	ug/L	<0.50	0.50	11/03/19 11:46	N3
Chloroethane	ug/L	<0.50	0.50	11/03/19 11:46	
Chloroform	ug/L	<0.50	0.50	11/03/19 11:46	
Chloromethane	ug/L	<0.50	0.50	11/03/19 11:46	CL
cis-1,2-Dichloroethene	ug/L	<0.50	0.50	11/03/19 11:46	
cis-1,3-Dichloropropene	ug/L	<0.50	0.50	11/03/19 11:46	
Dibromochloromethane	ug/L	<0.50	0.50	11/03/19 11:46	
Dibromomethane	ug/L	<0.50	0.50	11/03/19 11:46	
Dichlorodifluoromethane	ug/L	<0.50	0.50	11/03/19 11:46	
Ethylbenzene	ug/L	<0.50	0.50	11/03/19 11:46	
Hexachloro-1,3-butadiene	ug/L	<0.50	0.50	11/03/19 11:46	

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### QUALITY CONTROL DATA

Project: VOC/1,4-DIOX/PFAS 10/30

Pace Project No.: 70110259

METHOD BLANK: 655474

Matrix: Water

Associated Lab Samples: 70110259001, 70110259002, 70110259003, 70110259004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Isopropylbenzene (Cumene)	ug/L	<0.50	0.50	11/03/19 11:46	
m&p-Xylene	ug/L	<0.50	0.50	11/03/19 11:46	
Methyl-tert-butyl ether	ug/L	<0.50	0.50	11/03/19 11:46	
Methylene Chloride	ug/L	<0.50	0.50	11/03/19 11:46	
n-Butylbenzene	ug/L	<0.50	0.50	11/03/19 11:46	
n-Propylbenzene	ug/L	<0.50	0.50	11/03/19 11:46	
o-Xylene	ug/L	<0.50	0.50	11/03/19 11:46	
p-Isopropyltoluene	ug/L	<0.50	0.50	11/03/19 11:46	
sec-Butylbenzene	ug/L	<0.50	0.50	11/03/19 11:46	
Styrene	ug/L	<0.50	0.50	11/03/19 11:46	
tert-Butylbenzene	ug/L	<0.50	0.50	11/03/19 11:46	
Tetrachloroethene	ug/L	<0.50	0.50	11/03/19 11:46	
Toluene	ug/L	<0.50	0.50	11/03/19 11:46	
Total Trihalomethanes (Calc.)	ug/L	<0.50	0.50	11/03/19 11:46	
trans-1,2-Dichloroethene	ug/L	<0.50	0.50	11/03/19 11:46	
trans-1,3-Dichloropropene	ug/L	<0.50	0.50	11/03/19 11:46	
Trichloroethene	ug/L	<0.50	0.50	11/03/19 11:46	
Trichlorofluoromethane	ug/L	<0.50	0.50	11/03/19 11:46	
Vinyl chloride	ug/L	<0.50	0.50	11/03/19 11:46	
1,2-Dichlorobenzene-d4 (S)	%	88	70-130	11/03/19 11:46	
4-Bromofluorobenzene (S)	%	88	70-130	11/03/19 11:46	

LABORATORY CONTROL SAMPLE: 655475

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	10	9.7	97	70-130	
1,1,1-Trichloroethane	ug/L	10	8.6	86	70-130	
1,1,2,2-Tetrachloroethane	ug/L	10	9.7	97	70-130	
1,1,2-Trichloroethane	ug/L	10	9.5	95	70-130	
1,1,2-Trichlorotrifluoroethane	ug/L	10	10.2	102	70-130	IH,N3
1,1-Dichloroethane	ug/L	10	8.4	84	70-130	
1,1-Dichloroethene	ug/L	10	9.8	98	70-130	
1,1-Dichloropropene	ug/L	10	8.5	85	70-130	
1,2,3-Trichlorobenzene	ug/L	10	10.6	106	70-130	
1,2,3-Trichloropropane	ug/L	10	10.4	104	70-130	
1,2,4-Trichlorobenzene	ug/L	10	9.2	92	70-130	
1,2,4-Trimethylbenzene	ug/L	10	9.6	96	70-130	
1,2-Dichlorobenzene	ug/L	10	11.2	112	70-130	
1,2-Dichloroethane	ug/L	10	8.5	85	70-130	
1,2-Dichloropropane	ug/L	10	8.7	87	70-130	
1,3,5-Trimethylbenzene	ug/L	10	9.8	98	70-130	
1,3-Dichlorobenzene	ug/L	10	11.0	110	70-130	
1,3-Dichloropropane	ug/L	10	9.2	92	70-130	
1,4-Dichlorobenzene	ug/L	10	11.1	111	70-130	

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### QUALITY CONTROL DATA

Project: VOC/1,4-DIOX/PFAS 10/30

Pace Project No.: 70110259

LABORATORY CONTROL SAMPLE: 655475

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	10	8.1	81	70-130	
2-Chlorotoluene	ug/L	10	9.3	93	70-130	
4-Chlorotoluene	ug/L	10	9.4	94	70-130	
Benzene	ug/L	10	9.2	92	70-130	
Bromobenzene	ug/L	10	11.3	113	70-130	
Bromochloromethane	ug/L	10	12.0	120	70-130	
Bromodichloromethane	ug/L	10	7.8	78	70-130	
Bromoform	ug/L	10	8.9	89	70-130	
Bromomethane	ug/L	10	13.2	132	70-130	IH,L1
Carbon tetrachloride	ug/L	10	8.6	86	70-130	
Chlorobenzene	ug/L	10	10.3	103	70-130	
Chlorodifluoromethane	ug/L	10	5.9	59	70-130	IH,L2,N3
Chloroethane	ug/L	10	10.7	107	70-130	
Chloroform	ug/L	10	9.6	96	70-130	
Chloromethane	ug/L	10	7.6	76	70-130	CL
cis-1,2-Dichloroethene	ug/L	10	9.6	96	70-130	
cis-1,3-Dichloropropene	ug/L	10	8.3	83	70-130	
Dibromochloromethane	ug/L	10	9.5	95	70-130	
Dibromomethane	ug/L	10	9.8	98	70-130	
Dichlorodifluoromethane	ug/L	10	8.6	86	70-130	
Ethylbenzene	ug/L	10	9.7	97	70-130	
Hexachloro-1,3-butadiene	ug/L	10	10.9	109	70-130	
Isopropylbenzene (Cumene)	ug/L	10	9.9	99	70-130	
m&p-Xylene	ug/L	20	20.5	103	70-130	
Methyl-tert-butyl ether	ug/L	10	17.2	172	70-130	L1
Methylene Chloride	ug/L	10	9.3	93	70-130	
n-Butylbenzene	ug/L	10	8.9	89	70-130	
n-Propylbenzene	ug/L	10	9.3	93	70-130	
o-Xylene	ug/L	10	10.1	101	70-130	
p-Isopropyltoluene	ug/L	10	10	100	70-130	
sec-Butylbenzene	ug/L	10	9.5	95	70-130	
Styrene	ug/L	10	10.2	102	70-130	
tert-Butylbenzene	ug/L	10	10.1	101	70-130	
Tetrachloroethene	ug/L	10	11.1	111	70-130	
Toluene	ug/L	10	9.4	94	70-130	
Total Trihalomethanes (Calc.)	ug/L		35.8			
trans-1,2-Dichloroethene	ug/L	10	9.4	94	70-130	
trans-1,3-Dichloropropene	ug/L	10	8.3	83	70-130	
Trichloroethene	ug/L	10	9.4	94	70-130	
Trichlorofluoromethane	ug/L	10	10.6	106	70-130	
Vinyl chloride	ug/L	10	9.9	99	70-130	
1,2-Dichlorobenzene-d4 (S)	%			111	70-130	
4-Bromofluorobenzene (S)	%			111	70-130	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: VOC/1,4-DIOX/PFAS 10/30

Pace Project No.: 70110259

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 655630												655631											
Parameter	Units	70110405001		MS	MSD	MS		MSD		% Rec	% Rec	Limits	RPD	Max	RPD	Qual							
		Result	Conc.	Spike	Spike	Result	Result	% Rec	% Rec														
1,1,1,2-Tetrachloroethane	ug/L	<0.50	10	10	9.7	8.5	97	85	70-130	14	20												
1,1,1-Trichloroethane	ug/L	<0.50	10	10	9.1	7.6	91	76	70-130	18	20												
1,1,2,2-Tetrachloroethane	ug/L	<0.50	10	10	9.5	8.4	95	84	70-130	12	20												
1,1,2-Trichloroethane	ug/L	<0.50	10	10	9.6	8.2	96	82	70-130	15	20												
1,1,2-Trichlorotrifluoroethane	ug/L	<0.50	10	10	9.0	7.5	90	75	70-130	18	20	IH,N3											
1,1-Dichloroethane	ug/L	<0.50	10	10	8.6	7.2	86	72	70-130	18	20												
1,1-Dichloroethene	ug/L	<0.50	10	10	10.4	8.7	104	87	70-130	18	20												
1,1-Dichloropropene	ug/L	<0.50	10	10	8.8	8.0	88	80	70-130	10	20												
1,2,3-Trichlorobenzene	ug/L	<0.50	10	10	10.1	8.6	101	86	70-130	16	20												
1,2,3-Trichloropropane	ug/L	<0.50	10	10	9.9	8.8	99	88	70-130	12	20												
1,2,4-Trichlorobenzene	ug/L	<0.50	10	10	8.8	7.8	88	78	70-130	12	20												
1,2,4-Trimethylbenzene	ug/L	<0.50	10	10	9.9	8.5	99	85	70-130	15	20												
1,2-Dichlorobenzene	ug/L	<0.50	10	10	11.5	9.8	115	98	70-130	16	20												
1,2-Dichloroethane	ug/L	<0.50	10	10	8.5	7.4	85	74	70-130	13	20												
1,2-Dichloropropane	ug/L	<0.50	10	10	8.9	7.4	89	74	70-130	18	20												
1,3,5-Trimethylbenzene	ug/L	<0.50	10	10	10	8.5	100	85	70-130	16	20												
1,3-Dichlorobenzene	ug/L	<0.50	10	10	10.9	9.3	109	93	70-130	15	20												
1,3-Dichloropropane	ug/L	<0.50	10	10	9.1	7.9	91	79	70-130	15	20												
1,4-Dichlorobenzene	ug/L	<0.50	10	10	10.7	9.2	107	92	70-130	15	20												
2,2-Dichloropropane	ug/L	<0.50	10	10	7.1	6.1	71	61	70-130	16	20	M1											
2-Chlorotoluene	ug/L	<0.50	10	10	9.2	7.7	92	77	70-130	18	20												
4-Chlorotoluene	ug/L	<0.50	10	10	9.2	7.9	92	79	70-130	16	20												
Benzene	ug/L	<0.50	10	10	9.3	8.1	93	81	70-130	14	20												
Bromobenzene	ug/L	<0.50	10	10	11.3	9.7	113	97	70-130	15	20												
Bromochloromethane	ug/L	<0.50	10	10	11.8	10.3	118	103	70-130	14	20												
Bromodichloromethane	ug/L	<0.50	10	10	8.1	7.0	81	70	70-130	15	20												
Bromoform	ug/L	<0.50	10	10	8.7	7.1	87	71	70-130	20	20												
Bromomethane	ug/L	<0.50	10	10	11.3	12.2	113	122	70-130	8	20	IH											
Carbon tetrachloride	ug/L	<0.50	10	10	8.8	7.5	88	75	70-130	16	20												
Chlorobenzene	ug/L	<0.50	10	10	10.4	8.9	104	89	70-130	16	20												
Chlorodifluoromethane	ug/L	<0.50	10	10	10.7	9.7	107	97	70-130	10	20	IH,N3											
Chloroethane	ug/L	<0.50	10	10	11.0	9.7	110	97	70-130	13	20												
Chloroform	ug/L	<0.50	10	10	9.5	7.9	95	79	70-130	18	20												
Chloromethane	ug/L	<0.50	10	10	7.7	6.8	77	68	70-130	13	20	CL,M1											
cis-1,2-Dichloroethene	ug/L	<0.50	10	10	9.7	8.6	97	86	70-130	13	20												
cis-1,3-Dichloropropene	ug/L	<0.50	10	10	8.3	7.0	83	70	70-130	16	20												
Dibromochloromethane	ug/L	<0.50	10	10	9.2	8.2	92	82	70-130	12	20												
Dibromomethane	ug/L	<0.50	10	10	9.8	8.3	98	83	70-130	16	20												
Dichlorodifluoromethane	ug/L	<0.50	10	10	8.9	7.7	89	77	70-130	14	20												
Ethylbenzene	ug/L	<0.50	10	10	10.0	8.5	100	85	70-130	17	20												
Hexachloro-1,3-butadiene	ug/L	<0.50	10	10	10.2	8.8	102	88	70-130	15	20												
Isopropylbenzene (Cumene)	ug/L	<0.50	10	10	10.1	8.6	101	86	70-130	16	20												
m&p-Xylene	ug/L	<0.50	20	20	21.0	17.7	105	89	70-130	17	20												
Methyl-tert-butyl ether	ug/L	<0.50	10	10	13.4	11.6	134	116	70-130	14	20	M0											

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### QUALITY CONTROL DATA

Project: VOC/1,4-DIOX/PFAS 10/30

Pace Project No.: 70110259

Parameter	Units	70110405001		655630		655631		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec							
Methylene Chloride	ug/L	<0.50	10	10	9.5	8.3	95	83	70-130	14	20			
n-Butylbenzene	ug/L	<0.50	10	10	8.9	7.5	89	75	70-130	17	20			
n-Propylbenzene	ug/L	<0.50	10	10	9.3	7.9	93	79	70-130	16	20			
o-Xylene	ug/L	<0.50	10	10	10.4	8.7	104	87	70-130	17	20			
p-Isopropyltoluene	ug/L	<0.50	10	10	10.1	8.7	101	87	70-130	16	20			
sec-Butylbenzene	ug/L	<0.50	10	10	9.7	8.3	97	83	70-130	16	20			
Styrene	ug/L	<0.50	10	10	10.4	8.7	104	87	70-130	18	20			
tert-Butylbenzene	ug/L	<0.50	10	10	10.1	8.6	101	86	70-130	17	20			
Tetrachloroethene	ug/L	<0.50	10	10	11.5	9.5	115	95	70-130	19	20			
Toluene	ug/L	<0.50	10	10	9.5	8.0	95	80	70-130	17	20			
Total Trihalomethanes (Calc.)	ug/L	<0.50			35.4	30.1				16	20			
trans-1,2-Dichloroethene	ug/L	<0.50	10	10	9.8	8.3	98	83	70-130	16	20			
trans-1,3-Dichloropropene	ug/L	<0.50	10	10	8.0	6.8	80	68	70-130	16	20	M1		
Trichloroethene	ug/L	0.82	10	10	9.8	8.6	89	78	70-130	13	20			
Trichlorofluoromethane	ug/L	<0.50	10	10	10.9	9.3	109	93	70-130	16	20			
Vinyl chloride	ug/L	<0.50	10	10	10.5	9.1	105	91	70-130	15	20			
1,2-Dichlorobenzene-d4 (S)	%						110	108	70-130		20			
4-Bromofluorobenzene (S)	%						110	111	70-130		20			

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### QUALITY CONTROL DATA

Project: VOC/1,4-DIOX/PFAS 10/30

Pace Project No.: 70110259

QC Batch: 136951 Analysis Method: EPA 522  
 QC Batch Method: EPA 522 Analysis Description: 522 MSS 1,4 Dioxane  
 Associated Lab Samples: 70110259001, 70110259002

METHOD BLANK: 655511 Matrix: Drinking Water

Associated Lab Samples: 70110259001, 70110259002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	<0.020	0.020	11/05/19 02:00	
1,4-Dioxane-d8 (S)	%	85	70-130	11/05/19 02:00	

LABORATORY CONTROL SAMPLE: 655512

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	5	4.2	84	70-130	
1,4-Dioxane-d8 (S)	%			82	70-130	

MATRIX SPIKE SAMPLE: 655513

Parameter	Units	70110259001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	<0.020	5	4.1	82	70-130	
1,4-Dioxane-d8 (S)	%				83	70-130	

SAMPLE DUPLICATE: 655514

Parameter	Units	70110259002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	0.028	<0.020		20	
1,4-Dioxane-d8 (S)	%	81	82		20	

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

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### QUALITY CONTROL DATA

Project: VOC/1,4-DIOX/PFAS 10/30

Pace Project No.: 70110259

QC Batch: 136954

Analysis Method: EPA 522

QC Batch Method: EPA 522

Analysis Description: 522 MSS 1,4 Dioxane

Associated Lab Samples: 70110259003, 70110259004

METHOD BLANK: 65524

Matrix: Drinking Water

Associated Lab Samples: 70110259003, 70110259004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	<0.020	0.020	11/04/19 17:38	
1,4-Dioxane-d8 (S)	%	82	70-130	11/04/19 17:38	

LABORATORY CONTROL SAMPLE: 65525

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	0.02	0.021	106	70-130	
1,4-Dioxane-d8 (S)	%			84	70-130	

MATRIX SPIKE SAMPLE: 65526

Parameter	Units	70110283001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	0.40	0.02	0.43	141	70-130	M1
1,4-Dioxane-d8 (S)	%				82	70-130	

SAMPLE DUPLICATE: 65527

Parameter	Units	70110259003 Result	Dup Result	RPD	Max RPD	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	<0.020	<0.020		20	
1,4-Dioxane-d8 (S)	%	83	84		20	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: VOC/1,4-DIOX/PFAS 10/30

Pace Project No.: 70110259

QC Batch: 585059 Analysis Method: EPA 537  
 QC Batch Method: EPA 537 Analysis Description: 537 PFOA Compounds, Water  
 Associated Lab Samples: 70110259001, 70110259002, 70110259003, 70110259004

METHOD BLANK: 3181222 Matrix: Water  
 Associated Lab Samples: 70110259001, 70110259002, 70110259003, 70110259004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Perfluorobutanesulfonic acid	ng/L	<2.0	2.0	11/12/19 02:35	
Perfluoroheptanoic acid	ng/L	<2.0	2.0	11/12/19 02:35	
Perfluorohexanesulfonic acid	ng/L	<2.0	2.0	11/12/19 02:35	
Perfluorononanoic acid	ng/L	<2.0	2.0	11/12/19 02:35	
Perfluorooctanesulfonic acid	ng/L	<2.0	2.0	11/12/19 02:35	
Perfluorooctanoic acid	ng/L	<2.0	2.0	11/12/19 02:35	
13C2-PFDA (S)	%	102	70-130	11/12/19 02:35	
13C2-PFHxA (S)	%	114	70-130	11/12/19 02:35	
HFPO-DAS (S)	%	104	70-130	11/12/19 02:35	
NETFOSAA-d5 (S)	%	109	70-130	11/12/19 02:35	

LABORATORY CONTROL SAMPLE & LCSD: 3181223

3181224

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Perfluorobutanesulfonic acid	ng/L	8	8.3	8.8	103	110	70-130	6	30	
Perfluoroheptanoic acid	ng/L	8	7.9	8.8	99	110	70-130	11	30	
Perfluorohexanesulfonic acid	ng/L	8	5.9	7.0	73	88	70-130	18	30	
Perfluorononanoic acid	ng/L	8	8.5	9.3	106	117	70-130	9	30	
Perfluorooctanesulfonic acid	ng/L	8	6.7	7.6	84	95	70-130	12	30	
Perfluorooctanoic acid	ng/L	8	7.4	8.3	93	104	70-130	12	30	
13C2-PFDA (S)	%				104	105	70-130			
13C2-PFHxA (S)	%				108	116	70-130			
HFPO-DAS (S)	%				96	102	70-130			
NETFOSAA-d5 (S)	%				114	109	70-130			

LABORATORY CONTROL SAMPLE: 3181225

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Perfluorobutanesulfonic acid	ng/L	2	2.1	103	50-150	
Perfluoroheptanoic acid	ng/L	2	2.2	111	50-150	
Perfluorohexanesulfonic acid	ng/L	2	<2.0	91	50-150	
Perfluorononanoic acid	ng/L	2	2.4	119	50-150	
Perfluorooctanesulfonic acid	ng/L	2	<2.0	83	50-150	
Perfluorooctanoic acid	ng/L	2	2.1	105	50-150	
13C2-PFDA (S)	%			103	70-130	
13C2-PFHxA (S)	%			110	70-130	
HFPO-DAS (S)	%			95	70-130	
NETFOSAA-d5 (S)	%			108	70-130	

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

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## QUALIFIERS

Project: VOC/1,4-DIOX/PFAS 10/30

Pace Project No.: 70110259

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### 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

PACE-MV Pace Analytical Services - Melville

PASI-O Pace Analytical Services - Ormond Beach

### ANALYTE QUALIFIERS

CL The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

IH This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.

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

L2 Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

N3 Accreditation is not offered by the relevant laboratory accrediting body for this parameter.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: VOC/1,4-DIOX/PFAS 10/30

Pace Project No.: 70110259

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
70110259001	BPOW 6-6	EPA 537	585059	EPA 537	586448
70110259002	BPOW 6-5	EPA 537	585059	EPA 537	586448
70110259003	BPOW 6-3	EPA 537	585059	EPA 537	586448
70110259004	BPOW 6-4	EPA 537	585059	EPA 537	586448
70110259001	BPOW 6-6	EPA 522	136951	EPA 522	137056
70110259002	BPOW 6-5	EPA 522	136951	EPA 522	137056
70110259003	BPOW 6-3	EPA 522	136954	EPA 522	137058
70110259004	BPOW 6-4	EPA 522	136954	EPA 522	137058
70110259001	BPOW 6-6	EPA 524.2	136936		
70110259002	BPOW 6-5	EPA 524.2	136936		
70110259003	BPOW 6-3	EPA 524.2	136936		
70110259004	BPOW 6-4	EPA 524.2	136936		

### REPORT OF LABORATORY ANALYSIS

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# Sample Request Form PUBLIC WATER SUPPLIER

WELL OFF LINE

WELL RUN TO SYSTEM

YES  NO VOC'S PRESERVED WITH HCl

WO#: 70110259



Date: 10/30/19

Collected By: *R. Williams*

Accepted By: *Albert - PEEC 10/30/19*

Cooler Temp: 5.6 °C

Sample Types	Purpose	Origin	Treatment Types
PW - Potable Water GW - Groundwater SW - Surface Water WW - Waste Water AQ - Aqueous S - Soil	RO - Routine RE - Resample S - Special	D - Distribution RW - Raw Well TW - Treated Well T - Tank MW - Monitoring Well I - Influent E - Effluent	AST - Air Stripper GAC - Granular Activated Charcoal N - Nitrate Removal Plant FE - Iron Removal Plant O - Other

Client info:

Name or Code: *Massachusetts Water Dist*  
Address: *84 Grand Ave*  
Phone #: *516 298 5666*  
Attn: *Stan*  
Proj. # or (Name):  
Bill To:  
Copies To:

Sample info:

Date/Time Collected:	Sample Type	Location	Origin	Treatment Type	Purpose	Field Readings Cl <sub>2</sub>	pH/Temp	Analysis	Lab No.
10/30/19									
11:40	GW	BPOW 6-6	MW	-	S	-	-	VOC, 1,4 Dioxane, PFOA/PFOES	001
11:50	GW	BPOW 6-5	MW	-	S	-	-	VOC, 1,4 Dioxane, PFOA/PFOES	002
12:30	GW	BPOW 6-3	MW	-	S	-	-	VOC, 1,4 Dioxane, PFOA/PFOES	003
12:45	GW	BPOW 6-4	MW	-	S	-	-	VOC, 1,4 Dioxane, PFOA/PFOES	004

Remarks:





Sample Condition Upon Receipt

WO#: 70110259
PM: SWM Due Date: 11/08/19
CLIENT: MASS

Client Name: MASS

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #:
Custody Seal on Cooler/Box Present: Yes No Seals intact: Yes No Temperature Blank Present: Yes No

Packing Material: Bubble Wrap Bubble Bags Ziploc None Other Type of Ice: Wet Blue None

Thermometer Used: TH091 Correction Factor: 10.2 Samples on ice, cooling process has begun
Cooler Temperature (C): 5.6 Cooler Temperature Corrected (C): 15.8 Date/Time 5035A kits placed in freezer

Temp should be above freezing to 6.0C
USDA Regulated Soil (N/A, water sample) Date and Initials of person examining contents: JK 11/30/19

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? YES NO
Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

Table with 16 rows and 3 columns. Columns: Question, Yes/No/N/A, COMMENTS. Rows include Chain of Custody Present, Chain of Custody Filled Out, Chain of Custody Relinquished, Sampler Name & Signature on COC, Samples Arrived within Hold Time, Short Hold Time Analysis (<72hr), Rush Turn Around Time Requested, Sufficient Volume: (Triple volume provided for MS/MSD), Correct Containers Used, Containers Intact, Filtered volume received for Dissolved tests, Sample Labels match COC, All containers needing preservation have been checked, pH paper Lot #, All containers needing preservation are found to be in compliance with EPA recommendation?, Samples checked for dechlorination, Headspace in VOA Vials (>6mm), Trip Blank Present, Trip Blank Custody Seals Present, Pace Trip Blank Lot # (if applicable).

Client Notification/ Resolution: Field Data Required? Y / N
Person Contacted: Date/Time:
Comments/ Resolution:



575 Broad Hollow Road, Melville, NY 11747  
 TEL: (631) 694-3040 FAX: (631) 420-8436  
[www.pacelabs.com](http://www.pacelabs.com)

# Laboratory Results

Results for the samples and analytes requested  
 The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests

## Sample Information:

Type: Drinking Water  
 Origin: Other  
 Special

**Massapequa Water District**  
**84 Grand Ave.**  
**Massapequa, NY 11758**

**Lab No. : 70110259001**  
**Client Sample ID.: BPOW 6-6**

**Attn To : Stan Carey**  
 Federal ID : 2902837  
 Collected : 10/30/2019 11:40 AM Point  
 Received : 10/30/2019 02:22 PM Location  
 Collected By CLIENT

Analytical Method: EPA 522		Prep Method: EPA 522			Prep Date: 11/04/2019 8:59 AM		
Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Analyzed:	Container:
1,4-Dioxane (p-Dioxane)	<0.020		1	ug/L		11/05/2019 9:58 AM	001 AG2R1/2
Surr: 1,4-Dioxane-d8 (S)	83%		1	%REC		11/05/2019 9:58 AM	001 AG2R1/2

Analytical Method: EPA 524.2							
Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Analyzed:	Container:
1,1,1,2-Tetrachloroethane	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
1,1,1-Trichloroethane	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
1,1,2,2-Tetrachloroethane	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
1,1,2-Trichloroethane	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
1,1,2-Trichlorotrifluoroethane	<0.50	N3	1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
1,1-Dichloroethane	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
1,1-Dichloroethene	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
1,1-Dichloropropene	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
1,2,3-Trichlorobenzene	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
1,2,3-Trichloropropane	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
1,2,4-Trichlorobenzene	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
1,2,4-Trimethylbenzene	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
1,2-Dichlorobenzene	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
1,2-Dichloroethane	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
1,2-Dichloropropane	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
1,3,5-Trimethylbenzene	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
1,3-Dichlorobenzene	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
1,3-Dichloropropane	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
1,4-Dichlorobenzene	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
2,2-Dichloropropane	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
2-Chlorotoluene	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
4-Chlorotoluene	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
Benzene	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
Bromobenzene	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
Bromochloromethane	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
Bromodichloromethane	<0.50		1	ug/L		11/03/2019 4:07 PM	001 VG9C1/2
Bromoform	<0.50		1	ug/L		11/03/2019 4:07 PM	001 VG9C1/2
Bromomethane	<0.50	L1	1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
Carbon tetrachloride	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
Chlorobenzene	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
Chlorodifluoromethane	<0.50	L2,N3	1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
Chloroethane	<0.50		1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
Chloroform	<0.50		1	ug/L		11/03/2019 4:07 PM	001 VG9C1/2
Chloromethane	<0.50	CL	1	ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2

**Qualifiers:**  
 DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.  
 ND - Not Detected at or above adjusted reporting limit.  
 J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit. Estimated value - below calibration range  
 U - Indicates the compound was analyzed for, but not detected  
 See qualifiers page for additional qualifier definitions.

*Stu Murrell*  
 Stu Murrell

Test results meet the requirements of NELAC unless otherwise noted.

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Result(s) reported meet(s) NYS Regulatory Limit(s).  
 Result(s) flagged with \* Exceed NYS Regulatory Limit(s). Limit Noted.



# Laboratory Results

Results for the samples and analytes requested  
 The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests

### Sample Information:

Type: Drinking Water  
 Origin: Other  
 Special

**Massapequa Water District**  
**84 Grand Ave.**  
**Massapequa, NY 11758**

**Lab No. : 70110259001**  
**Client Sample ID.: BPOW 6-6**

**Attn To : Stan Carey**  
 Federal ID : 2902837  
 Collected : 10/30/2019 11:40 AM Point  
 Received : 10/30/2019 02:22 PM Location  
 Collected By CLIENT

Parameter	Result	Qualifier	D.F.	Units	Limit	Analyzed:	Container:
Dibromochloromethane	<0.50	1		ug/L		11/03/2019 4:07 PM	001 VG9C1/2
Dibromomethane	<0.50	1		ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
Dichlorodifluoromethane	<0.50	1		ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
Ethylbenzene	<0.50	1		ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
Hexachloro-1,3-butadiene	<0.50	1		ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
Isopropylbenzene (Cumene)	<0.50	1		ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
Methyl-tert-butyl ether	<0.50	L1 1		ug/L	10	11/03/2019 4:07 PM	001 VG9C1/2
Methylene Chloride	<0.50	1		ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
Styrene	<0.50	1		ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
Tetrachloroethene	<0.50	1		ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
Toluene	<0.50	1		ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
Total Trihalomethanes (Calc.)	<0.50	1		ug/L	80	11/03/2019 4:07 PM	001 VG9C1/2
Trichloroethene	<0.50	1		ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
Trichlorofluoromethane	<0.50	1		ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
Vinyl chloride	<0.50	1		ug/L	2	11/03/2019 4:07 PM	001 VG9C1/2
cis-1,2-Dichloroethene	<0.50	1		ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
cis-1,3-Dichloropropene	<0.50	1		ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
m&p-Xylene	<0.50	1		ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
n-Butylbenzene	<0.50	1		ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
n-Propylbenzene	<0.50	1		ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
o-Xylene	<0.50	1		ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
p-Isopropyltoluene	<0.50	1		ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
sec-Butylbenzene	<0.50	1		ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
tert-Butylbenzene	<0.50	1		ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
trans-1,2-Dichloroethene	<0.50	1		ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
trans-1,3-Dichloropropene	<0.50	1		ug/L	5	11/03/2019 4:07 PM	001 VG9C1/2
Surr: 1,2-Dichlorobenzene-d4 (S)	90%	1		%REC		11/03/2019 4:07 PM	001 VG9C1/2
Surr: 4-Bromofluorobenzene (S)	89%	1		%REC		11/03/2019 4:07 PM	001 VG9C1/2

Analytical Method: EPA 537		Prep Method: EPA 537			Prep Date: 11/07/2019 9:00 AM		
Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Analyzed:	Container:
Perfluorobutanesulfonic acid	<1.8		1	ng/L		11/12/2019 4:05 AM	
Perfluoroheptanoic acid	<1.8		1	ng/L		11/12/2019 4:05 AM	
Perfluorohexanesulfonic acid	<1.8		1	ng/L		11/12/2019 4:05 AM	
Perfluorononanoic acid	<1.8		1	ng/L		11/12/2019 4:05 AM	
Perfluorooctanesulfonic acid	<1.8		1	ng/L		11/12/2019 4:05 AM	
Perfluorooctanoic acid	<1.8		1	ng/L		11/12/2019 4:05 AM	
Surr: 13C2-PFDA (S)	102%		1	%REC		11/12/2019 4:05 AM	
Surr: 13C2-PFHxA (S)	117%		1	%REC		11/12/2019 4:05 AM	
Surr: HFPO-DAS (S)	106%		1	%REC		11/12/2019 4:05 AM	
Surr: NEtFOSAA-d5 (S)	102%		1	%REC		11/12/2019 4:05 AM	

**Qualifiers:**  
 DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.  
 ND - Not Detected at or above adjusted reporting limit.  
 J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit. Estimated value - below calibration range  
 U - Indicates the compound was analyzed for, but not detected  
 See qualifiers page for additional qualifier definitions.

*Stu Murrell*  
 Stu Murrell

Test results meet the requirements of NELAC unless otherwise noted.

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 Result(s) flagged with \* Exceed NYS Regulatory Limit(s). Limit Noted.



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# Laboratory Results

Results for the samples and analytes requested  
 The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests

## Sample Information:

Type: Drinking Water  
 Origin: Other  
 Special

**Massapequa Water District**  
**84 Grand Ave.**  
**Massapequa, NY 11758**

**Lab No. : 70110259002**  
**Client Sample ID.: BPOW 6-5**

**Attn To : Stan Carey**  
 Federal ID : 2902837  
 Collected : 10/30/2019 11:50 AM Point  
 Received : 10/30/2019 02:22 PM Location  
 Collected By CLIENT

Analytical Method: EPA 522		Prep Method: EPA 522			Prep Date: 11/04/2019 8:59 AM		
Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Analyzed:	Container:
1,4-Dioxane (p-Dioxane)	0.028		1	ug/L		11/05/2019 10:40	002 AG2R1/2
Surr: 1,4-Dioxane-d8 (S)	81%		1	%REC		11/05/2019 10:40	002 AG2R1/2

Analytical Method: EPA 524.2							
Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Analyzed:	Container:
1,1,1,2-Tetrachloroethane	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
1,1,1-Trichloroethane	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
1,1,2,2-Tetrachloroethane	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
1,1,2-Trichloroethane	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
1,1,2-Trichlorotrifluoroethane	<0.50	N3	1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
1,1-Dichloroethane	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
1,1-Dichloroethene	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
1,1-Dichloropropene	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
1,2,3-Trichlorobenzene	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
1,2,3-Trichloropropane	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
1,2,4-Trichlorobenzene	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
1,2,4-Trimethylbenzene	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
1,2-Dichlorobenzene	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
1,2-Dichloroethane	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
1,2-Dichloropropane	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
1,3,5-Trimethylbenzene	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
1,3-Dichlorobenzene	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
1,3-Dichloropropane	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
1,4-Dichlorobenzene	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
2,2-Dichloropropane	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
2-Chlorotoluene	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
4-Chlorotoluene	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
Benzene	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
Bromobenzene	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
Bromochloromethane	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
Bromodichloromethane	<0.50		1	ug/L		11/03/2019 4:34 PM	002 VG9C1/2
Bromoform	<0.50		1	ug/L		11/03/2019 4:34 PM	002 VG9C1/2
Bromomethane	<0.50	L1	1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
Carbon tetrachloride	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
Chlorobenzene	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
Chlorodifluoromethane	<0.50	L2,N3	1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
Chloroethane	<0.50		1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
Chloroform	<0.50		1	ug/L		11/03/2019 4:34 PM	002 VG9C1/2
Chloromethane	<0.50	CL	1	ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2

### Qualifiers:

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.  
 ND - Not Detected at or above adjusted reporting limit.  
 J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit. Estimated value - below calibration range  
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 See qualifiers page for additional qualifier definitions.

*Stu Murrell*

Stu Murrell

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# Laboratory Results

Results for the samples and analytes requested  
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### Sample Information:

Type: Drinking Water  
 Origin: Other  
 Special

**Massapequa Water District**  
**84 Grand Ave.**  
**Massapequa, NY 11758**

**Lab No. : 70110259002**  
**Client Sample ID.: BPOW 6-5**

**Attn To : Stan Carey**  
 Federal ID : 2902837  
 Collected : 10/30/2019 11:50 AM Point  
 Received : 10/30/2019 02:22 PM Location  
 Collected By CLIENT

Parameter	Result	Qualifier	D.F.	Units	Limit	Analyzed:	Container:
Dibromochloromethane	<0.50	1		ug/L		11/03/2019 4:34 PM	002 VG9C1/2
Dibromomethane	<0.50	1		ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
Dichlorodifluoromethane	<0.50	1		ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
Ethylbenzene	<0.50	1		ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
Hexachloro-1,3-butadiene	<0.50	1		ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
Isopropylbenzene (Cumene)	<0.50	1		ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
Methyl-tert-butyl ether	<0.50	L1 1		ug/L	10	11/03/2019 4:34 PM	002 VG9C1/2
Methylene Chloride	<0.50	1		ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
Styrene	<0.50	1		ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
Tetrachloroethene	<0.50	1		ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
Toluene	<0.50	1		ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
Total Trihalomethanes (Calc.)	<0.50	1		ug/L	80	11/03/2019 4:34 PM	002 VG9C1/2
Trichloroethene	<0.50	1		ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
Trichlorofluoromethane	<0.50	1		ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
Vinyl chloride	<0.50	1		ug/L	2	11/03/2019 4:34 PM	002 VG9C1/2
cis-1,2-Dichloroethene	<0.50	1		ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
cis-1,3-Dichloropropene	<0.50	1		ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
m&p-Xylene	<0.50	1		ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
n-Butylbenzene	<0.50	1		ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
n-Propylbenzene	<0.50	1		ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
o-Xylene	<0.50	1		ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
p-Isopropyltoluene	<0.50	1		ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
sec-Butylbenzene	<0.50	1		ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
tert-Butylbenzene	<0.50	1		ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
trans-1,2-Dichloroethene	<0.50	1		ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
trans-1,3-Dichloropropene	<0.50	1		ug/L	5	11/03/2019 4:34 PM	002 VG9C1/2
Surr: 1,2-Dichlorobenzene-d4 (S)	87%	1		%REC		11/03/2019 4:34 PM	002 VG9C1/2
Surr: 4-Bromofluorobenzene (S)	87%	1		%REC		11/03/2019 4:34 PM	002 VG9C1/2

Analytical Method: EPA 537		Prep Method: EPA 537			Prep Date: 11/07/2019 9:00 AM		
Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Analyzed:	Container:
Perfluorobutanesulfonic acid	<1.8		1	ng/L		11/12/2019 4:23 AM	
Perfluoroheptanoic acid	<1.8		1	ng/L		11/12/2019 4:23 AM	
Perfluorohexanesulfonic acid	<1.8		1	ng/L		11/12/2019 4:23 AM	
Perfluorononanoic acid	<1.8		1	ng/L		11/12/2019 4:23 AM	
Perfluorooctanesulfonic acid	<1.8		1	ng/L		11/12/2019 4:23 AM	
Perfluorooctanoic acid	<1.8		1	ng/L		11/12/2019 4:23 AM	
Surr: 13C2-PFDA (S)	103%		1	%REC		11/12/2019 4:23 AM	
Surr: 13C2-PFHxA (S)	113%		1	%REC		11/12/2019 4:23 AM	
Surr: HFPO-DAS (S)	101%		1	%REC		11/12/2019 4:23 AM	
Surr: NEtFOSAA-d5 (S)	98%		1	%REC		11/12/2019 4:23 AM	

**Qualifiers:**

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 J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit. Estimated value - below calibration range  
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 See qualifiers page for additional qualifier definitions.

*Stu Murrell*

Stu Murrell

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# Laboratory Results

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## Sample Information:

Type: Drinking Water  
 Origin: Other  
 Special

**Massapequa Water District**  
**84 Grand Ave.**  
**Massapequa, NY 11758**

**Lab No. : 70110259003**  
**Client Sample ID.: BPOW 6-3**

**Attn To : Stan Carey**  
 Federal ID : 2902837  
 Collected : 10/30/2019 12:30 PM Point  
 Received : 10/30/2019 02:22 PM Location  
 Collected By CLIENT

Analytical Method: EPA 522		Prep Method: EPA 522			Prep Date: 11/04/2019 11:36		
Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Analyzed:	Container:
1,4-Dioxane (p-Dioxane)	<0.020		1	ug/L		11/04/2019 7:05 PM	003 AG2R1/2
Surr: 1,4-Dioxane-d8 (S)	83%		1	%REC		11/04/2019 7:05 PM	003 AG2R1/2

Analytical Method: EPA 524.2							
Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Analyzed:	Container:
1,1,1,2-Tetrachloroethane	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
1,1,1-Trichloroethane	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
1,1,2,2-Tetrachloroethane	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
1,1,2-Trichloroethane	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
1,1,2-Trichlorotrifluoroethane	<0.50	N3	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
1,1-Dichloroethane	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
1,1-Dichloroethene	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
1,1-Dichloropropene	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
1,2,3-Trichlorobenzene	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
1,2,3-Trichloropropane	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
1,2,4-Trichlorobenzene	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
1,2,4-Trimethylbenzene	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
1,2-Dichlorobenzene	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
1,2-Dichloroethane	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
1,2-Dichloropropane	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
1,3,5-Trimethylbenzene	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
1,3-Dichlorobenzene	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
1,3-Dichloropropane	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
1,4-Dichlorobenzene	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
2,2-Dichloropropane	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
2-Chlorotoluene	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
4-Chlorotoluene	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
Benzene	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
Bromobenzene	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
Bromochloromethane	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
Bromodichloromethane	<0.50		1	ug/L		11/03/2019 5:01 PM	003 VG9C1/2
Bromoform	<0.50		1	ug/L		11/03/2019 5:01 PM	003 VG9C1/2
Bromomethane	<0.50	L1	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
Carbon tetrachloride	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
Chlorobenzene	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
Chlorodifluoromethane	<0.50	L2,N3	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
Chloroethane	<0.50		1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
Chloroform	<0.50		1	ug/L		11/03/2019 5:01 PM	003 VG9C1/2
Chloromethane	<0.50	CL	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2

**Qualifiers:**  
 DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.  
 ND - Not Detected at or above adjusted reporting limit.  
 J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit. Estimated value - below calibration range  
 U - Indicates the compound was analyzed for, but not detected  
 See qualifiers page for additional qualifier definitions.

*Stu Murrell*  
 Stu Murrell

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# Laboratory Results

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### Sample Information:

Type: Drinking Water  
 Origin: Other  
 Special

**Massapequa Water District**  
**84 Grand Ave.**  
**Massapequa, NY 11758**

**Lab No. : 70110259003**  
**Client Sample ID.: BPOW 6-3**

**Attn To : Stan Carey**

Federal ID : 2902837

Collected : 10/30/2019 12:30 PM Point

Received : 10/30/2019 02:22 PM Location

Collected By CLIENT

Dibromochloromethane	<0.50	1	ug/L		11/03/2019 5:01 PM	003 VG9C1/2
Dibromomethane	<0.50	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
Dichlorodifluoromethane	<0.50	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
Ethylbenzene	<0.50	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
Hexachloro-1,3-butadiene	<0.50	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
Isopropylbenzene (Cumene)	<0.50	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
Methyl-tert-butyl ether	<0.50	L1 1	ug/L	10	11/03/2019 5:01 PM	003 VG9C1/2
Methylene Chloride	<0.50	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
Styrene	<0.50	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
Tetrachloroethene	<0.50	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
Toluene	<0.50	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
Total Trihalomethanes (Calc.)	<0.50	1	ug/L	80	11/03/2019 5:01 PM	003 VG9C1/2
Trichloroethene	<0.50	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
Trichlorofluoromethane	<0.50	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
Vinyl chloride	<0.50	1	ug/L	2	11/03/2019 5:01 PM	003 VG9C1/2
cis-1,2-Dichloroethene	<0.50	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
cis-1,3-Dichloropropene	<0.50	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
m&p-Xylene	<0.50	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
n-Butylbenzene	<0.50	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
n-Propylbenzene	<0.50	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
o-Xylene	<0.50	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
p-Isopropyltoluene	<0.50	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
sec-Butylbenzene	<0.50	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
tert-Butylbenzene	<0.50	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
trans-1,2-Dichloroethene	<0.50	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
trans-1,3-Dichloropropene	<0.50	1	ug/L	5	11/03/2019 5:01 PM	003 VG9C1/2
Surr: 1,2-Dichlorobenzene-d4 (S)	87%	1	%REC		11/03/2019 5:01 PM	003 VG9C1/2
Surr: 4-Bromofluorobenzene (S)	83%	1	%REC		11/03/2019 5:01 PM	003 VG9C1/2

Analytical Method: EPA 537

Prep Method: EPA 537

Prep Date: 11/07/2019 9:00 AM

Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Analyzed:	Container:
Perfluorobutanesulfonic acid	<1.8		1	ng/L		11/12/2019 4:41 AM	
Perfluoroheptanoic acid	<1.8		1	ng/L		11/12/2019 4:41 AM	
Perfluorohexanesulfonic acid	<1.8		1	ng/L		11/12/2019 4:41 AM	
Perfluorononanoic acid	<1.8		1	ng/L		11/12/2019 4:41 AM	
Perfluorooctanesulfonic acid	<1.8		1	ng/L		11/12/2019 4:41 AM	
Perfluorooctanoic acid	<1.8		1	ng/L		11/12/2019 4:41 AM	
Surr: 13C2-PFDA (S)	93%		1	%REC		11/12/2019 4:41 AM	
Surr: 13C2-PFHxA (S)	104%		1	%REC		11/12/2019 4:41 AM	
Surr: HFPO-DAS (S)	93%		1	%REC		11/12/2019 4:41 AM	
Surr: NEtFOSAA-d5 (S)	88%		1	%REC		11/12/2019 4:41 AM	

### Qualifiers:

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ND - Not Detected at or above adjusted reporting limit.

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

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

See qualifiers page for additional qualifier definitions.

Result(s) reported meet(s) NYS Regulatory Limit(s).

Result(s) flagged with \* Exceed NYS Regulatory Limit(s). Limit Noted.

Stu Murrell

Test results meet the requirements of NELAC unless otherwise noted.

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575 Broad Hollow Road, Melville, NY 11747  
 TEL: (631) 694-3040 FAX: (631) 420-8436  
[www.pacelabs.com](http://www.pacelabs.com)

# Laboratory Results

Results for the samples and analytes requested  
 The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests

## Sample Information:

Type: Drinking Water  
 Origin: Other  
 Special

**Massapequa Water District**  
**84 Grand Ave.**  
**Massapequa, NY 11758**

**Lab No. : 70110259004**  
**Client Sample ID.: BPOW 6-4**

**Attn To : Stan Carey**  
 Federal ID : 2902837  
 Collected : 10/30/2019 12:45 PM Point  
 Received : 10/30/2019 02:22 PM Location  
 Collected By CLIENT

Analytical Method: EPA 522		Prep Method: EPA 522			Prep Date: 11/04/2019 11:36		
Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Analyzed:	Container:
1,4-Dioxane (p-Dioxane)	0.19		1	ug/L		11/04/2019 7:49 PM	004 AG2R1/2
Surr: 1,4-Dioxane-d8 (S)	82%		1	%REC		11/04/2019 7:49 PM	004 AG2R1/2

Analytical Method: EPA 524.2							
Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Analyzed:	Container:
1,1,1,2-Tetrachloroethane	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
1,1,1-Trichloroethane	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
1,1,2,2-Tetrachloroethane	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
1,1,2-Trichloroethane	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
1,1,2-Trichlorotrifluoroethane	<0.50	N3	1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
1,1-Dichloroethane	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
1,1-Dichloroethene	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
1,1-Dichloropropene	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
1,2,3-Trichlorobenzene	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
1,2,3-Trichloropropane	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
1,2,4-Trichlorobenzene	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
1,2,4-Trimethylbenzene	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
1,2-Dichlorobenzene	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
1,2-Dichloroethane	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
1,2-Dichloropropane	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
1,3,5-Trimethylbenzene	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
1,3-Dichlorobenzene	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
1,3-Dichloropropane	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
1,4-Dichlorobenzene	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
2,2-Dichloropropane	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
2-Chlorotoluene	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
4-Chlorotoluene	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
Benzene	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
Bromobenzene	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
Bromochloromethane	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
Bromodichloromethane	<0.50		1	ug/L		11/03/2019 5:28 PM	004 VG9C1/2
Bromoform	<0.50		1	ug/L		11/03/2019 5:28 PM	004 VG9C1/2
Bromomethane	<0.50	L1	1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
Carbon tetrachloride	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
Chlorobenzene	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
Chlorodifluoromethane	<0.50	L2,N3	1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
Chloroethane	<0.50		1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
Chloroform	<0.50		1	ug/L		11/03/2019 5:28 PM	004 VG9C1/2
Chloromethane	<0.50	CL	1	ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2

**Qualifiers:**  
 DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.  
 ND - Not Detected at or above adjusted reporting limit.  
 J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit. Estimated value - below calibration range  
 U - Indicates the compound was analyzed for, but not detected  
 See qualifiers page for additional qualifier definitions.

*Stu Murrell*  
 Stu Murrell

Test results meet the requirements of NELAC unless otherwise noted.

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Result(s) reported meet(s) NYS Regulatory Limit(s).  
 Result(s) flagged with \* Exceed NYS Regulatory Limit(s). Limit Noted.





# Laboratory Results

Results for the samples and analytes requested  
 The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests

### Sample Information:

Type: Drinking Water  
 Origin: Other  
 Special

**Massapequa Water District**  
**84 Grand Ave.**  
**Massapequa, NY 11758**

**Lab No. : 70110259004**  
**Client Sample ID.: BPOW 6-4**

**Attn To : Stan Carey**  
 Federal ID : 2902837  
 Collected : 10/30/2019 12:45 PM Point  
 Received : 10/30/2019 02:22 PM Location  
 Collected By CLIENT

Parameter	Result	Qualifier	D.F.	Units	Limit	Analyzed:	Container:
Dibromochloromethane	<0.50	1		ug/L		11/03/2019 5:28 PM	004 VG9C1/2
Dibromomethane	<0.50	1		ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
Dichlorodifluoromethane	<0.50	1		ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
Ethylbenzene	<0.50	1		ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
Hexachloro-1,3-butadiene	<0.50	1		ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
Isopropylbenzene (Cumene)	<0.50	1		ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
Methyl-tert-butyl ether	<0.50	L1 1		ug/L	10	11/03/2019 5:28 PM	004 VG9C1/2
Methylene Chloride	<0.50	1		ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
Styrene	<0.50	1		ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
Tetrachloroethene	<0.50	1		ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
Toluene	<0.50	1		ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
Total Trihalomethanes (Calc.)	<0.50	1		ug/L	80	11/03/2019 5:28 PM	004 VG9C1/2
Trichloroethene	<0.50	1		ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
Trichlorofluoromethane	<0.50	1		ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
Vinyl chloride	<0.50	1		ug/L	2	11/03/2019 5:28 PM	004 VG9C1/2
cis-1,2-Dichloroethene	<0.50	1		ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
cis-1,3-Dichloropropene	<0.50	1		ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
m&p-Xylene	<0.50	1		ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
n-Butylbenzene	<0.50	1		ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
n-Propylbenzene	<0.50	1		ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
o-Xylene	<0.50	1		ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
p-Isopropyltoluene	<0.50	1		ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
sec-Butylbenzene	<0.50	1		ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
tert-Butylbenzene	<0.50	1		ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
trans-1,2-Dichloroethene	<0.50	1		ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
trans-1,3-Dichloropropene	<0.50	1		ug/L	5	11/03/2019 5:28 PM	004 VG9C1/2
Surr: 1,2-Dichlorobenzene-d4 (S)	86%	1		%REC		11/03/2019 5:28 PM	004 VG9C1/2
Surr: 4-Bromofluorobenzene (S)	83%	1		%REC		11/03/2019 5:28 PM	004 VG9C1/2

Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Analyzed:	Container:
Analytical Method: EPA 537		Prep Method: EPA 537		Prep Date: 11/07/2019 9:00 AM			
Perfluorobutanesulfonic acid	<1.8	1		ng/L		11/12/2019 4:59 AM	
Perfluoroheptanoic acid	<1.8	1		ng/L		11/12/2019 4:59 AM	
Perfluorohexanesulfonic acid	<1.8	1		ng/L		11/12/2019 4:59 AM	
Perfluorononanoic acid	<1.8	1		ng/L		11/12/2019 4:59 AM	
Perfluorooctanesulfonic acid	<1.8	1		ng/L		11/12/2019 4:59 AM	
Perfluorooctanoic acid	<1.8	1		ng/L		11/12/2019 4:59 AM	
Surr: 13C2-PFDA (S)	102%	1		%REC		11/12/2019 4:59 AM	
Surr: 13C2-PFHxA (S)	112%	1		%REC		11/12/2019 4:59 AM	
Surr: HFPO-DAS (S)	105%	1		%REC		11/12/2019 4:59 AM	
Surr: NEtFOSAA-d5 (S)	103%	1		%REC		11/12/2019 4:59 AM	

**Qualifiers:**  
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 ND - Not Detected at or above adjusted reporting limit.  
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 See qualifiers page for additional qualifier definitions.

*Stu Murrell*

Stu Murrell

Test results meet the requirements of NELAC unless otherwise noted.

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Result(s) reported meet(s) NYS Regulatory Limit(s).  
 Result(s) flagged with \* Exceed NYS Regulatory Limit(s). Limit Noted.

**WorkOrder :**

70110259

## Laboratory Certifications

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**Ormond Beach Certification IDs**

8 East Tower Circle, Ormond Beach, FL 32174  
Alaska DEC- CS/UST/LUST  
Alabama Certification #: 41320  
Arizona Certification# AZ0819  
Colorado Certification: FL NELAC Reciprocity  
Connecticut Certification #: PH-0216  
Delaware Certification: FL NELAC Reciprocity  
Florida Certification #: E83079  
Georgia Certification #: 955  
Guam Certification: FL NELAC Reciprocity  
Hawaii Certification: FL NELAC Reciprocity  
Illinois Certification #: 200068  
Indiana Certification: FL NELAC Reciprocity  
Kansas Certification #: E-10383  
Kentucky Certification #: 90050  
Louisiana Certification #: FL NELAC Reciprocity  
Louisiana Environmental Certificate #: 05007  
Maryland Certification: #346  
Michigan Certification #: 9911  
Mississippi Certification: FL NELAC Reciprocity  
Missouri Certification #: 236  
Montana Certification #: Cert 0074  
Nebraska Certification: NE-OS-28-14  
New Hampshire Certification #: 2958  
New Jersey Certification #: FL022  
New York Certification #: 11608  
North Carolina Environmental Certificate #: 667  
North Carolina Certification #: 12710  
North Dakota Certification #: R-216  
Oklahoma Certification #: D9947  
Pennsylvania Certification #: 68-00547  
Puerto Rico Certification #: FL01264  
South Carolina Certification: #96042001  
Tennessee Certification #: TN02974  
Texas Certification: FL NELAC Reciprocity  
US Virgin Islands Certification: FL NELAC Reciprocity  
Virginia Environmental Certification #: 460165  
West Virginia Certification #: 9962C  
Wisconsin Certification #: 399079670  
Wyoming (EPA Region 8): FL NELAC Reciprocity

**Long Island Certification IDs**

575 Broad Hollow Rd, Melville, NY 11747

**WorkOrder :**

70110259

## Laboratory Certifications

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**Long Island Certification IDs**

New York Certification #: 10478 Primary Accrediting Body

New Jersey Certification #: NY158

Pennsylvania Certification #: 68-00350

Connecticut Certification #: PH-0435

Maryland Certification #: 208

Rhode Island Certification #: LAO00340

Massachusetts Certification #: M-NY026

New Hampshire Certification #: 2987

**WorkOrder :**

70110259

**Qualifiers**

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CL - The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

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

L2 - Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.

N3 - Accreditation is not offered by the relevant laboratory accrediting body for this parameter.

# Sample Request Form PUBLIC WATER SUPPLIER

WELL OFF LINE

WELL RUN TO SYSTEM

Date:

10/30/19

(10)

Collected By:

REYNOLDS

Accepted By:

Kurt Pfeiffer 10/30/19

Cooler Temp:

5.6 °C

19:22

YES  NO VOC'S PRESERVED WITH HCl

### Sample Types

- PW - Potable Water
- GW - Groundwater
- SW - Surface Water
- WW - Waste Water
- AQ - Aqueous
- S - Soil

### Purpose

- RO - Routine
- RE - Resample
- S - Special

### Origin

- D - Distribution
- RW - Raw Well
- TW - Treated Well
- T - Tank
- MW - Monitoring Well
- I - Influent
- E - Effluent

### Treatment Types

- AST - Air Stripper
- GAC - Granular Activated Charcoal
- N - Nitrate Removal Plant
- FE - Iron Removal Plant
- O - Other

### Sample Info:

Date/Time Collected:

10/30/19

Sample Type

Location

Origin

Treatment Type

Purpose

Field Readings Cl<sub>2</sub>

pH/Temp

Analysis

Lab No.

11:40	GW	BPOW 6-6	MW	/	S	-	-	VOC, 1,4 Dioxane, PFOA/PFOES	OUI
11:50	GW	BPOW 6-5	MW	/	S	-	-	VOC, 1,4 Dioxane, PFOA/PFOES	002
12:30	GW	BPOW 6-3	MW	/	S	-	-	VOC, 1,4 Dioxane, PFOA/PFOES	003
12:45	GW	BPOW 6-4	MW	/	S	-	-	VOC, 1,4 Dioxane, PFOA/PFOES	004

Remarks:

**Client info:**

Name or Code: Massachusetts Water Dist

Address: 84 Grand Ave

Phone #: 516 998 1125

Attn: Stan

Proj. # or (Name): \_\_\_\_\_

Bill To: \_\_\_\_\_

Copies To: \_\_\_\_\_





Sample Condition Upon Receipt

WO#: 70110259
PM: SWM Due Date: 11/08/19
CLIENT: MASS

Client Name: MASS

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #:
Custody Seal on Cooler/Box Present: Yes No Seals intact: Yes No Temperature Blank Present: Yes No

Packing Material: Bubble Wrap Bubble Bags Ziploc None Other Type of Ice: Wet Blue None

Thermometer Used: TH091 Correction Factor: 10.2 Samples on ice, cooling process has begun
Cooler Temperature (C): 5.6 Cooler Temperature Corrected (C): 15.8 Date/Time 5035A kits placed in freezer

Temp should be above freezing to 6.0C
USDA Regulated Soil (N/A, water sample) Date and Initials of person examining contents: JK 11/30/19

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? YES NO
Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

Table with 16 rows and 3 columns. Columns: Question, Yes/No/N/A checkboxes, and Comments. Rows include Chain of Custody Present, Chain of Custody Filled Out, Chain of Custody Relinquished, Sampler Name & Signature on COC, Samples Arrived within Hold Time, Short Hold Time Analysis (<72hr), Rush Turn Around Time Requested, Sufficient Volume, Correct Containers Used, Containers Intact, Filtered volume received for Dissolved tests, Sample Labels match COC, All containers needing preservation have been checked, pH paper Lot #, All containers needing preservation are found to be in compliance with EPA recommendation, Samples checked for dechlorination, Headspace in VOA Vials (>6mm), Trip Blank Present, Trip Blank Custody Seals Present, Pace Trip Blank Lot # (if applicable).

Client Notification/ Resolution: Field Data Required? Y / N
Person Contacted: Date/Time:
Comments/ Resolution:

\* PM (Project Manager) review is documented electronically in LIMS.