

### **ATTACHMENT 3: LABORATORY ANALYTICAL REPORTS**

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This attachment contains the laboratory analytical reports prepared by BC Laboratories, Inc., of Bakersfield, California.



Date of Report: 08/20/2018

David Conner

Tidewater Inc.

3761 Attucks Drive

Powell, OH 43065

Client Project: 3Q18

BCL Project: JPL- GW Monitoring Wells

BCL Work Order: 1822876

Invoice ID:

Enclosed are the results of analyses for samples received by the laboratory on 7/23/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Table of Contents

### Sample Information

Chain of Custody and Cooler Receipt form.....	4
Laboratory / Client Sample Cross Reference.....	9

### Sample Results

<b>1822876-01 - TB-1-072318</b>	
Volatile Organic Analysis (EPA Method 524.2).....	14
Volatile Organic Analysis (EPA Method 524.2) TICs.....	17
<b>1822876-02 - MW-20-5</b>	
Volatile Organic Analysis (EPA Method 524.2).....	18
Volatile Organic Analysis (EPA Method 524.2) TICs.....	21
Water Analysis (General Chemistry).....	22
Metals Analysis.....	23
<b>1822876-03 - MW-20-4</b>	
Volatile Organic Analysis (EPA Method 524.2).....	24
Volatile Organic Analysis (EPA Method 524.2) TICs.....	27
Water Analysis (General Chemistry).....	28
Metals Analysis.....	29
<b>1822876-04 - MW-20-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	30
Volatile Organic Analysis (EPA Method 524.2) TICs.....	33
Water Analysis (General Chemistry).....	34
Metals Analysis.....	35
<b>1822876-05 - MW-20-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	36
Volatile Organic Analysis (EPA Method 524.2) TICs.....	39
Water Analysis (General Chemistry).....	40
Metals Analysis.....	41
<b>1822876-06 - MW-19-5</b>	
Volatile Organic Analysis (EPA Method 524.2).....	42
Volatile Organic Analysis (EPA Method 524.2) TICs.....	45
Water Analysis (General Chemistry).....	46
<b>1822876-07 - MW-19-4</b>	
Volatile Organic Analysis (EPA Method 524.2).....	47
Volatile Organic Analysis (EPA Method 524.2) TICs.....	50
Water Analysis (General Chemistry).....	51
<b>1822876-08 - MW-19-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	52
Volatile Organic Analysis (EPA Method 524.2) TICs.....	55
Water Analysis (General Chemistry).....	56
<b>1822876-09 - DUP-1-3Q18</b>	
Volatile Organic Analysis (EPA Method 524.2).....	57
Volatile Organic Analysis (EPA Method 524.2) TICs.....	60
Water Analysis (General Chemistry).....	61
<b>1822876-10 - MW-19-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	62
Volatile Organic Analysis (EPA Method 524.2) TICs.....	65
Water Analysis (General Chemistry).....	66
<b>1822876-11 - MW-19-1</b>	
Volatile Organic Analysis (EPA Method 524.2).....	67
Volatile Organic Analysis (EPA Method 524.2) TICs.....	70
Water Analysis (General Chemistry).....	71
<b>1822876-12 - EB-1-072318</b>	
Volatile Organic Analysis (EPA Method 524.2).....	72
Volatile Organic Analysis (EPA Method 524.2) TICs.....	75

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## Table of Contents

Water Analysis (General Chemistry).....	76
Metals Analysis.....	77
<b>1822876-13 - SB-1-072318</b>	
Volatile Organic Analysis (EPA Method 524.2).....	78
Volatile Organic Analysis (EPA Method 524.2) TICs.....	81
Water Analysis (General Chemistry).....	82
Metals Analysis.....	83
<b>Quality Control Reports</b>	
<b>Volatile Organic Analysis (EPA Method 524.2)</b>	
Method Blank Analysis.....	84
Laboratory Control Sample.....	87
Precision and Accuracy.....	88
<b>Volatile Organic Analysis (EPA Method 524.2) TICs</b>	
Method Blank Analysis.....	89
<b>Water Analysis (General Chemistry)</b>	
Method Blank Analysis.....	90
Laboratory Control Sample.....	91
Precision and Accuracy.....	92
<b>Metals Analysis</b>	
Method Blank Analysis.....	93
Laboratory Control Sample.....	94
Precision and Accuracy.....	95
<b>Notes</b>	
Notes and Definitions.....	96



Page 1 of 2

Chain of Custody Form



**Required Fields**

Report to: Tidelwater, Inc.  
 Client: David Conner  
 Attn: David Conner  
 Street Address: 3781 Attucks Drive  
 City: Powell State: OH Zip: 43065  
 Phone: 626 298 5715 Fax: 614 792 2897  
 Email Address: david.conner@twd.net  
 Submission #: 18-22876

Project Description: JPL-GW Monitoring  
 Project Code: 3Q18  
 Sampler(s): Blaine Tech  
 Thina Hicks

**Analysis Requested**

Sample #	Sample Description	Date	Time	Matrix*
-1	TB-1-072318	07/23/18	0700	GW
-2	MW-20-5	07/23/18	0810	GW
-3	MW-20-4	07/23/18	0840	GW
-4	MW-20-3	07/23/18	0915	GW
-5	MW-20-2	07/23/18	0940	GW
-6	MW-19-5	07/23/18	1140	GW
-7	MW-19-4	07/23/18	1220	GW
-8	MW-19-3	07/23/18	1235	GW
-9	DUP-1-3018	07/23/18	1245	GW
-10	MW-19-2	07/23/18	1315	GW
-11	MW-19-1	07/23/18	1345	GW

**Analysis Requested**

Analysis	Requested
Total Cr (200.8)	X
VOCs EPA 524.2	X
Perchlorate (EPA 314.0)	X
Chloride, Nitrate, Sulfate (300)	X
Orthophosphate (365.1)	X
Nitrite (353.2)	X
Hexavalent Cr (7196)	X

**Notes:**  
 DIS TRIBUTION  
 Level IV  
 MS/MSD

**Matrix Types:** S = Soil SL = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other

**Turnaround # of working days:**  24 Hr Rush  48 Hr Rush  3-5 Day Rush  Normal (10 - Days)

**Lab TAT Approval:** \_\_\_\_\_

**Comments:**  
 PLEASE NOTATE WHICH SAMPLES TO USE FOR QC (MS/MSD) 90% Level III and 10% Level IV data validation required; Level IV Notated on C of C NOTE: ALL ANALYSIS REQUIRED TO HAVE CALIBRATION SUMMARIES (Inform QC)

**Cost Center:**  
 1. Requisitioned By: [Signature] Date: 07/23/18 Time: 1930  
 2. Requisitioned By: [Signature] Date: 07/23/18 Time: 1900  
 3. Requisitioned By: [Signature] Date: 07/23/18 Time: 1900

**Global ID:**  
 1. Received By: [Signature] Date: 07/23/18 Time: 1430  
 2. Received By: [Signature] Date: 07/23/18 Time: 1430  
 3. Received By: [Signature] Date: 07/23/18 Time: 1400

**Billing:**  
 Client: Tidelwater, Inc.  
 Attn: David Conner  
 Address: 3781 Attucks Drive  
 City: Powell State: OH Zip: 43065  
 Are there any tests with holding times less than or equal to 48 hours?  Yes  No  
 \*Standard Turnaround = 10

BC Laboratories, Inc. 4100 Atlas Court - Bakersfield CA 93308 (661) 327 - 4911 Fax: (661) 327 - 1918 www.bclabs.com

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 3 Submission #: 1822876

SHIPPING INFORMATION: Fed Ex, UPS, Ontrac, Hand Delivery, BC Lab Field Service. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO, W/S

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers, None. Comments:

All samples received? Yes, No. All samples containers intact? Yes, No. Description(s) match COC? Yes, No

COC Received: YES, NO. Emissivity: 0.97. Container: V0015. Thermometer ID: 208. Date/Time: 7/23/18 1900. Analyst Init: [Signature]

Table with columns for SAMPLE CONTAINERS and SAMPLE NUMBERS (1-10). Rows include various sample types like QT PE UNPRES, QT INORGANIC CHEMICAL METALS, etc. Handwritten entries include 'A', 'ABC', 'ABC', 'ABC', 'ABC', 'ABC', 'ABC'.

Comments: [Signature] Date/Time: 7/23 1929 Rev 21 05/23/2016



BC LABORATORIES INC. COOLER RECEIPT FORM Page 2 of 3

Submission #: 18-22876

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

FREE LIQUID: YES  NO  / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received: YES  NO  Emissivity: 0.97 Container: VOCS Thermometer ID: 908 Date/Time: 7/23/18 1900

Temperature: (A) 2.9 °C / (C) 24 °C Analyst Init: ELX

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	<u>D</u>	<u>D</u>	<u>D</u>							
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz	<u>E</u>	<u>E</u>								
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	<u>ABC</u>	<u>ABC</u>	<u>ABC</u>							
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504										
QT EPA 508/608/808										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531I										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8170										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: 658 Date/Time: 7/23/18 29 Rev 21 05/23/2016

A = Actual / C = Corrected

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 3 of 3

Submission #: 1822876

SHIPPING INFORMATION
Fed Ex [ ] UPS [ ] Ontrac [ ] Hand Delivery [ ]
BC Lab Field Service [x] Other [ ] (Specify)

SHIPPING CONTAINER
Ice Chest [x] None [ ] Box [ ]
Other [ ] (Specify)

FREE LIQUID
YES [ ] NO [x]
W / S

Refrigerant: Ice [x] Blue Ice [ ] None [ ] Other [ ] Comments:

Custody Seals Ice Chest [ ] Containers [ ] None [x]
Intact? Yes [ ] No [ ] Intact? Yes [ ] No [ ]

All samples received? Yes [x] No [ ] All samples containers intact? Yes [x] No [ ] Description(s) match COC? Yes [ ] No [x]

COC Received
YES [x] NO [ ]

Emissivity: 0.97 Container: VE Thermometer ID: 208
Temperature: (A) 2.5 °C / (C) 2.4 °C

Date/Time: 7/23/18 1900
Analyst Init: [Signature]

Table with columns for Sample Containers and Sample Numbers (1-10). Rows include various sample types like QT PE UNPRES, INORGANIC CHEMICAL METALS, etc. Handwritten numbers are present in some cells.

Comments: [Signature] Date/Time: 7/23/18 Rev 21 05/23/2016



Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1822876-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> TB-1-072318 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/23/2018 19:00 <b>Sampling Date:</b> 07/23/2018 07:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Blank Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): TB-1-072318 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1822876-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-20-5 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/23/2018 19:00 <b>Sampling Date:</b> 07/23/2018 08:10 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-20-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1822876-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-20-4 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/23/2018 19:00 <b>Sampling Date:</b> 07/23/2018 08:40 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-20-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1822876-04</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-20-3 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/23/2018 19:00 <b>Sampling Date:</b> 07/23/2018 09:15 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-20-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1822876-05</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-20-2 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/23/2018 19:00 <b>Sampling Date:</b> 07/23/2018 09:40 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-20-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1822876-06</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-19-5 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/23/2018 19:00 <b>Sampling Date:</b> 07/23/2018 11:40 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-19-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1822876-07</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-19-4 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/23/2018 19:00 <b>Sampling Date:</b> 07/23/2018 12:20 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-19-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1822876-08</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-19-3 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/23/2018 19:00 <b>Sampling Date:</b> 07/23/2018 12:35 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-19-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1822876-09</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> DUP-1-3Q18 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/23/2018 19:00 <b>Sampling Date:</b> 07/23/2018 12:45 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): DUP-1-3Q18 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1822876-10</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-19-2 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/23/2018 19:00 <b>Sampling Date:</b> 07/23/2018 13:15 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-19-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1822876-11</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-19-1 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/23/2018 19:00 <b>Sampling Date:</b> 07/23/2018 13:45 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-19-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1822876-12</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> EB-1-072318 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/23/2018 19:00 <b>Sampling Date:</b> 07/23/2018 14:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): EB-1-072318 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1822876-13</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 07/23/2018 19:00
	<b>Project Number:</b> JPL-GW Monitoring	<b>Sampling Date:</b> 07/23/2018 14:10
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> SB-1-072318	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Think Hoang of BTST	<b>Sample Type:</b> Groundwater
		Delivery Work Order:
		Global ID: 0000000000
		Location ID (FieldPoint): SB-1-072318
		Matrix: W
		Sample QC Type (SACode): CS
	Cooler ID:	

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-01	<b>Client Sample Name:</b> JPL-GW Monitoring, TB-1-072318, 7/23/2018 7:00:00AM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-01	<b>Client Sample Name:</b> JPL-GW Monitoring, TB-1-072318, 7/23/2018 7:00:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-01	<b>Client Sample Name:</b> JPL-GW Monitoring, TB-1-072318, 7/23/2018 7:00:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	96.8	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	96.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 09:46	MGC	MS-V5	1	B020161

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Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1822876-01	<b>Client Sample Name:</b> JPL-GW Monitoring, TB-1-072318, 7/23/2018 7:00:00AM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 09:46	MGC	MS-V5	1	B020161

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Powell, OH 43065

Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-02	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-20-5, 7/23/2018 8:10:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 1822876-02		Client Sample Name: JPL-GW Monitoring, MW-20-5, 7/23/2018 8:10:00AM, Thinh Hoang						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
<b>Styrene</b>	<b>0.12</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-02	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-20-5, 7/23/2018 8:10:00AM, Thinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	106	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 10:09	MGC	MS-V5	1	B020161

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Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1822876-02	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-20-5, 7/23/2018 8:10:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 10:09	MGC	MS-V5	1	B020161

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Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1822876-02	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-20-5, 7/23/2018 8:10:00AM, Thinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/10/18 16:00	08/10/18 19:31	SAV	IC6	1	B021353

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Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1822876-02	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-20-5, 7/23/2018 8:10:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.1</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	0.79	J	2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/24/18 00:43	07/24/18 01:00		SAV	KONE-1	1	B019850
2	EPA-200.8	07/25/18 08:30	07/26/18 02:54		ARD	PE-EL3	1	B019817

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	1822876-03	Client Sample Name:	JPL-GW Monitoring, MW-20-4, 7/23/2018 8:40:00AM, Thinh Hoang						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Powell, OH 43065

**Reported:** 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-03	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-20-4, 7/23/2018 8:40:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Powell, OH 43065

**Reported:** 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-03	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-20-4, 7/23/2018 8:40:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	103	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	97.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 10:32	MGC	MS-V5	1	B020161

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**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1822876-03	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-20-4, 7/23/2018 8:40:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 10:32	MGC	MS-V5	1	B020161

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Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1822876-03	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-20-4, 7/23/2018 8:40:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/10/18 16:00	08/10/18 19:46	SAV	IC6	1	B021353

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**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1822876-03	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-20-4, 7/23/2018 8:40:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>0.83</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	0.79	J	2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	07/24/18 00:43	07/24/18 01:00	SAV	KONE-1	1	B019850
2	EPA-200.8	07/25/18 08:30	07/26/18 03:08	ARD	PE-EL3	1	B019817

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Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-04	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-20-3, 7/23/2018 9:15:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Powell, OH 43065

Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-04	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-20-3, 7/23/2018 9:15:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
<b>Styrene</b>	<b>0.23</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
<b>Acrylonitrile</b>	<b>1.7</b>	<b>ug/L</b>	<b>5.0</b>	<b>1.5</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
<b>Carbon disulfide</b>	<b>0.52</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.48</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-04	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-20-3, 7/23/2018 9:15:00AM, Thinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 10:55	MGC	MS-V5	1	B020161

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1822876-04	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-20-3, 7/23/2018 9:15:00AM, Thinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 10:55	MGC	MS-V5	1	B020161

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Tidewater Inc.  
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Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1822876-04	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-20-3, 7/23/2018 9:15:00AM, Thinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/10/18 16:00	08/10/18 20:02	SAV	IC6	1	B021353

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Tidewater Inc.  
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**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1822876-04	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-20-3, 7/23/2018 9:15:00AM, Thinh Hoang							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>0.93</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	0.79	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	07/24/18 00:43	07/24/18 01:00	SAV	KONE-1	1	B019850
2	EPA-200.8	07/25/18 08:30	07/26/18 03:11	ARD	PE-EL3	1	B019817

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Tidewater Inc.  
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Powell, OH 43065

Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-05	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-20-2, 7/23/2018 9:40:00AM, Thinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.15</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-05	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-20-2, 7/23/2018 9:40:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.47</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-05	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-20-2, 7/23/2018 9:40:00AM, Thinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	96.2	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	96.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 07:27	MGC	MS-V5	1	B020161

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1822876-05	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-20-2, 7/23/2018 9:40:00AM, Thinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 07:27	MGC	MS-V5	1	B020161

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1822876-05	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-20-2, 7/23/2018 9:40:00AM, Thinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	1.5	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/10/18 16:00	08/10/18 20:17	SAV	IC6	1	B021353

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Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1822876-05	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-20-2, 7/23/2018 9:40:00AM, Thinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>0.66</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	0.79	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	07/24/18 00:43	07/24/18 00:59	SAV	KONE-1	1	B019850
2	EPA-200.8	07/25/18 08:30	07/26/18 02:33	ARD	PE-EL3	1	B019817

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Powell, OH 43065

Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-06	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-19-5, 7/23/2018 11:40:00AM, Tinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
<b>Bromodichloromethane</b>	<b>0.24</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.20</b>	<b>EPA-524.2</b>	ND	J	1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>1.7</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-06	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-19-5, 7/23/2018 11:40:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-06	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-19-5, 7/23/2018 11:40:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 11:18	MGC	MS-V5	1	B020161

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Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1822876-06	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-19-5, 7/23/2018 11:40:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 11:18	MGC	MS-V5	1	B020161

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Tidewater Inc.  
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Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1822876-06	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-19-5, 7/23/2018 11:40:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	2.1	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/10/18 16:00	08/10/18 21:49	SAV	IC6	1	B021353

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Tidewater Inc.  
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Powell, OH 43065

Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-07	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-19-4, 7/23/2018 12:20:00PM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.65</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-07	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-19-4, 7/23/2018 12:20:00PM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.43</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-07	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-19-4, 7/23/2018 12:20:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 11:41	MGC	MS-V5	1	B020161

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1822876-07	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-19-4, 7/23/2018 12:20:00PM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 11:41	MGC	MS-V5	1	B020161

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1822876-07	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-19-4, 7/23/2018 12:20:00PM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	3.0	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/10/18 16:00	08/10/18 22:05	SAV	IC6	1	B021353

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-08	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-19-3, 7/23/2018 12:35:00PM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>2.6</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-08	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-19-3, 7/23/2018 12:35:00PM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.55</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.31</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-08	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-19-3, 7/23/2018 12:35:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	99.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 12:04	MGC	MS-V5	1	B020161

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1822876-08	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-19-3, 7/23/2018 12:35:00PM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 12:04	MGC	MS-V5	1	B020161

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1822876-08	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-19-3, 7/23/2018 12:35:00PM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	2.2	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/10/18 16:00	08/10/18 22:20	SAV	IC6	1	B021353

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Powell, OH 43065

Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-09	<b>Client Sample Name:</b> JPL-GW Monitoring, DUP-1-3Q18, 7/23/2018 12:45:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
<b>Bromodichloromethane</b>	<b>0.22</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.20</b>	<b>EPA-524.2</b>	ND	J	1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>2.2</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Powell, OH 43065

Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 1822876-09		Client Sample Name: JPL-GW Monitoring, DUP-1-3Q18, 7/23/2018 12:45:00PM, Tinh Hoang						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.48</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.21</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-09	<b>Client Sample Name:</b> JPL-GW Monitoring, DUP-1-3Q18, 7/23/2018 12:45:00PM, Thanh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 12:27	MGC	MS-V5	1	B020161

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1822876-09	<b>Client Sample Name:</b> JPL-GW Monitoring, DUP-1-3Q18, 7/23/2018 12:45:00PM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 12:27	MGC	MS-V5	1	B020161

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Tidewater Inc.  
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Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1822876-09	<b>Client Sample Name:</b> JPL-GW Monitoring, DUP-1-3Q18, 7/23/2018 12:45:00PM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	2.5	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/10/18 16:00	08/13/18 14:33	MIG	IC6	1	B021353

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Tidewater Inc.  
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Powell, OH 43065

Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-10	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-19-2, 7/23/2018 1:15:00PM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>2.3</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
<b>1,1-Dichloroethane</b>	<b>0.18</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.15</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
<b>cis-1,2-Dichloroethene</b>	<b>0.35</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.27</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-10	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-19-2, 7/23/2018 1:15:00PM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>1.6</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.85</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-10	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-19-2, 7/23/2018 1:15:00PM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	109	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	97.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 12:50	MGC	MS-V5	1	B020161

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1822876-10	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-19-2, 7/23/2018 1:15:00PM, Thinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 12:50	MGC	MS-V5	1	B020161

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1822876-10	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-19-2, 7/23/2018 1:15:00PM, Thinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	3.0	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/10/18 16:00	08/13/18 14:48	MIG	IC6	1	B021353

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Powell, OH 43065

Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-11	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-19-1, 7/23/2018 1:45:00PM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>3.4</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 1822876-11		Client Sample Name: JPL-GW Monitoring, MW-19-1, 7/23/2018 1:45:00PM, Thinh Hoang						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-11	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-19-1, 7/23/2018 1:45:00PM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	105	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 13:13	MGC	MS-V5	1	B020161

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Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1822876-11	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-19-1, 7/23/2018 1:45:00PM, Thinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 13:13	MGC	MS-V5	1	B020161

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**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1822876-11	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-19-1, 7/23/2018 1:45:00PM, Thinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	1.3	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/10/18 16:00	08/10/18 23:06	SAV	IC6	1	B021353

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Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-12	<b>Client Sample Name:</b> JPL-GW Monitoring, EB-1-072318, 7/23/2018 2:00:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-12	<b>Client Sample Name:</b> JPL-GW Monitoring, EB-1-072318, 7/23/2018 2:00:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-12	<b>Client Sample Name:</b> JPL-GW Monitoring, EB-1-072318, 7/23/2018 2:00:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	109	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	97.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 13:36	MGC	MS-V5	1	B020161

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Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1822876-12	<b>Client Sample Name:</b> JPL-GW Monitoring, EB-1-072318, 7/23/2018 2:00:00PM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 13:36	MGC	MS-V5	1	B020161

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**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1822876-12	<b>Client Sample Name:</b> JPL-GW Monitoring, EB-1-072318, 7/23/2018 2:00:00PM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/10/18 16:00	08/10/18 23:21	SAV	IC6	1	B021353

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Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1822876-12	<b>Client Sample Name:</b> JPL-GW Monitoring, EB-1-072318, 7/23/2018 2:00:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>0.98</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	0.79	J	2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	07/24/18 00:43	07/24/18 01:00	SAV	KONE-1	1	B019850
2	EPA-200.8	07/25/18 08:30	07/26/18 03:14	ARD	PE-EL3	1	B019817

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Powell, OH 43065

Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-13	<b>Client Sample Name:</b> JPL-GW Monitoring, SB-1-072318, 7/23/2018 2:10:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-13	<b>Client Sample Name:</b> JPL-GW Monitoring, SB-1-072318, 7/23/2018 2:10:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1822876-13	<b>Client Sample Name:</b> JPL-GW Monitoring, SB-1-072318, 7/23/2018 2:10:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	98.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 13:59	MGC	MS-V5	1	B020161

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**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1822876-13	<b>Client Sample Name:</b> JPL-GW Monitoring, SB-1-072318, 7/23/2018 2:10:00PM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/30/18 13:59	MGC	MS-V5	1	B020161

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**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1822876-13	<b>Client Sample Name:</b> JPL-GW Monitoring, SB-1-072318, 7/23/2018 2:10:00PM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/10/18 16:00	08/10/18 23:37	EMW	IC6	1	B021353

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Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1822876-13	<b>Client Sample Name:</b> JPL-GW Monitoring, SB-1-072318, 7/23/2018 2:10:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>0.99</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	0.79	J	2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/24/18 00:43	07/24/18 01:01		SAV	KONE-1	1	B019850
2	EPA-200.8	07/25/18 08:30	07/26/18 03:18		ARD	PE-EL3	1	B019817

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Powell, OH 43065

Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020161</b>						
Benzene	B020161-BLK1	ND	ug/L	0.50	0.11	
Bromobenzene	B020161-BLK1	ND	ug/L	0.50	0.15	
Bromochloromethane	B020161-BLK1	ND	ug/L	0.50	0.27	
Bromodichloromethane	B020161-BLK1	ND	ug/L	0.50	0.20	
Bromoform	B020161-BLK1	ND	ug/L	0.50	0.46	
Bromomethane	B020161-BLK1	ND	ug/L	0.50	0.20	
n-Butylbenzene	B020161-BLK1	ND	ug/L	0.50	0.15	
sec-Butylbenzene	B020161-BLK1	ND	ug/L	0.50	0.13	
tert-Butylbenzene	B020161-BLK1	ND	ug/L	0.50	0.18	
Carbon tetrachloride	B020161-BLK1	ND	ug/L	0.50	0.17	
Chlorobenzene	B020161-BLK1	ND	ug/L	0.50	0.14	
Chloroethane	B020161-BLK1	ND	ug/L	0.50	0.17	
Chloroform	B020161-BLK1	ND	ug/L	0.50	0.14	
Chloromethane	B020161-BLK1	ND	ug/L	0.50	0.11	
2-Chlorotoluene	B020161-BLK1	ND	ug/L	0.50	0.14	
4-Chlorotoluene	B020161-BLK1	ND	ug/L	0.50	0.093	
Dibromochloromethane	B020161-BLK1	ND	ug/L	0.50	0.22	
1,2-Dibromo-3-chloropropane	B020161-BLK1	ND	ug/L	1.0	0.89	
1,2-Dibromoethane	B020161-BLK1	ND	ug/L	0.50	0.22	
Dibromomethane	B020161-BLK1	ND	ug/L	0.50	0.23	
1,2-Dichlorobenzene	B020161-BLK1	ND	ug/L	0.50	0.21	
1,3-Dichlorobenzene	B020161-BLK1	ND	ug/L	0.50	0.16	
1,4-Dichlorobenzene	B020161-BLK1	ND	ug/L	0.50	0.15	
Dichlorodifluoromethane	B020161-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethane	B020161-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloroethane	B020161-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	B020161-BLK1	ND	ug/L	0.50	0.27	
cis-1,2-Dichloroethene	B020161-BLK1	ND	ug/L	0.50	0.27	
trans-1,2-Dichloroethene	B020161-BLK1	ND	ug/L	0.50	0.17	
1,2-Dichloropropane	B020161-BLK1	ND	ug/L	0.50	0.15	
1,3-Dichloropropane	B020161-BLK1	ND	ug/L	0.50	0.13	
2,2-Dichloropropane	B020161-BLK1	ND	ug/L	0.50	0.18	
1,1-Dichloropropene	B020161-BLK1	ND	ug/L	0.50	0.19	
cis-1,3-Dichloropropene	B020161-BLK1	ND	ug/L	0.50	0.14	

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3761 Attucks Drive
Powell, OH 43065

Reported: 08/20/2018 9:50
Project: JPL- GW Monitoring Wells
Project Number: 3Q18
Project Manager: David Conner

Volatile Organic Analysis (EPA Method 524.2)

Quality Control Report - Method Blank Analysis

Table with 7 columns: Constituent, QC Sample ID, MB Result, Units, PQL, MDL, Lab Quals. Includes a QC Batch ID: B020161 and a list of 30 chemical constituents with their respective results.

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020161</b>						
Ethyl t-butyl ether	B020161-BLK1	ND	ug/L	0.50	0.32	
Hexachloroethane	B020161-BLK1	ND	ug/L	0.50	0.11	
2-Hexanone	B020161-BLK1	ND	ug/L	10	5.0	
Methacrylonitrile	B020161-BLK1	ND	ug/L	10	2.3	
Methyl ethyl ketone	B020161-BLK1	ND	ug/L	10	3.3	
Methyl iodide	B020161-BLK1	ND	ug/L	2.0	1.1	
Methyl isobutyl ketone	B020161-BLK1	ND	ug/L	10	2.4	
Methyl methacrylate	B020161-BLK1	ND	ug/L	5.0	1.2	
Pentachloroethane	B020161-BLK1	ND	ug/L	2.0	0.63	
Propionitrile	B020161-BLK1	ND	ug/L	20	6.2	
Tetrahydrofuran	B020161-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	B020161-BLK1	ND	ug/L	0.50	0.34	
o-Xylene	B020161-BLK1	ND	ug/L	0.50	0.13	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>B020161-BLK1</b>	<b>98.7</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>B020161-BLK1</b>	<b>101</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>B020161-BLK1</b>	<b>98.3</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B020161</b>										
Benzene	B020161-BS1	LCS	25.150	25.000	ug/L	101		70 - 130		
Bromodichloromethane	B020161-BS1	LCS	26.030	25.000	ug/L	104		70 - 130		
Chlorobenzene	B020161-BS1	LCS	23.820	25.000	ug/L	95.3		70 - 130		
Chloroethane	B020161-BS1	LCS	26.820	25.000	ug/L	107		70 - 130		
1,4-Dichlorobenzene	B020161-BS1	LCS	23.130	25.000	ug/L	92.5		70 - 130		
1,1-Dichloroethane	B020161-BS1	LCS	26.060	25.000	ug/L	104		70 - 130		
1,1-Dichloroethene	B020161-BS1	LCS	26.470	25.000	ug/L	106		70 - 130		
Toluene	B020161-BS1	LCS	24.690	25.000	ug/L	98.8		70 - 130		
Trichloroethene	B020161-BS1	LCS	24.790	25.000	ug/L	99.2		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B020161-BS1	LCS	10.420	10.000	ug/L	104		75 - 125		
Toluene-d8 (Surrogate)	B020161-BS1	LCS	9.8200	10.000	ug/L	98.2		80 - 120		
4-Bromofluorobenzene (Surrogate)	B020161-BS1	LCS	9.4500	10.000	ug/L	94.5		80 - 120		

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery		Lab
								RPD	Percent Recovery	
<b>QC Batch ID: B020161</b>										
Used client sample: Y - Description: MW-20-2, 07/23/2018 09:40										
Benzene	MS	1822876-05	ND	25.120	25.000	ug/L		100		70 - 130
	MSD	1822876-05	ND	25.850	25.000	ug/L	2.9	103	20	70 - 130
Bromodichloromethane	MS	1822876-05	ND	26.260	25.000	ug/L		105		70 - 130
	MSD	1822876-05	ND	26.130	25.000	ug/L	0.5	105	20	70 - 130
Chlorobenzene	MS	1822876-05	ND	24.310	25.000	ug/L		97.2		70 - 130
	MSD	1822876-05	ND	25.890	25.000	ug/L	6.3	104	20	70 - 130
Chloroethane	MS	1822876-05	ND	26.640	25.000	ug/L		107		70 - 130
	MSD	1822876-05	ND	26.970	25.000	ug/L	1.2	108	20	70 - 130
1,4-Dichlorobenzene	MS	1822876-05	ND	23.400	25.000	ug/L		93.6		70 - 130
	MSD	1822876-05	ND	24.480	25.000	ug/L	4.5	97.9	20	70 - 130
1,1-Dichloroethane	MS	1822876-05	ND	25.360	25.000	ug/L		101		70 - 130
	MSD	1822876-05	ND	25.730	25.000	ug/L	1.4	103	20	70 - 130
1,1-Dichloroethene	MS	1822876-05	ND	26.570	25.000	ug/L		106		70 - 130
	MSD	1822876-05	ND	26.350	25.000	ug/L	0.8	105	20	70 - 130
Toluene	MS	1822876-05	ND	25.700	25.000	ug/L		103		70 - 130
	MSD	1822876-05	ND	25.280	25.000	ug/L	1.6	101	20	70 - 130
Trichloroethene	MS	1822876-05	0.47000	25.950	25.000	ug/L		102		70 - 130
	MSD	1822876-05	0.47000	25.730	25.000	ug/L	0.9	101	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1822876-05	ND	9.3000	10.000	ug/L		93.0		75 - 125
	MSD	1822876-05	ND	9.5100	10.000	ug/L	2.2	95.1		75 - 125
Toluene-d8 (Surrogate)	MS	1822876-05	ND	9.9000	10.000	ug/L		99.0		80 - 120
	MSD	1822876-05	ND	9.9500	10.000	ug/L	0.5	99.5		80 - 120
4-Bromofluorobenzene (Surrogate)	MS	1822876-05	ND	9.5900	10.000	ug/L		95.9		80 - 120
	MSD	1822876-05	ND	10.140	10.000	ug/L	5.6	101		80 - 120

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020161</b>						
Chloroacetonitrile	B020161-BLK1	0	ug/L			
1-Chlorobutane	B020161-BLK1	0	ug/L			
1,1-Dichloropropanone	B020161-BLK1	0	ug/L			
Methyl acrylate	B020161-BLK1	0	ug/L			
Nitrobenzene	B020161-BLK1	0	ug/L			
2-Nitropropane	B020161-BLK1	0	ug/L			

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B021353</b>						
Perchlorate	B021353-BLK1	ND	ug/L	4.0	0.58	

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B021353</b>										
Perchlorate	B021353-BS1	LCS	10.048	10.000	ug/L	100		85	115	

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B021353</b>		Used client sample: Y - Description: MW-20-2, 07/23/2018 09:40								
Perchlorate	DUP	1822876-05	1.5407	1.4680		ug/L	4.8		15	J
	MS	1822876-05	1.5407	10.661	10.101	ug/L		90.3	80 - 120	
	MSD	1822876-05	1.5407	10.946	10.101	ug/L	2.6	93.1	15 80 - 120	

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B019817</b>						
Total Recoverable Chromium	B019817-BLK1	0.78700	ug/L	3.0	0.50	J
<b>QC Batch ID: B019850</b>						
Hexavalent Chromium	B019850-BLK1	ND	mg/L	0.0020	0.00070	

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Metals Analysis

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B019817</b>										
Total Recoverable Chromium	B019817-BS1	LCS	43.484	40.000	ug/L	109		85 - 115		
<b>QC Batch ID: B019850</b>										
Hexavalent Chromium	B019850-BS1	LCS	0.051781	0.050000	mg/L	104		85 - 115		

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Metals Analysis

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B019817</b>		Used client sample: Y - Description: MW-20-2, 07/23/2018 09:40								
Total Recoverable Chromium	DUP	1822876-05	0.66200	1.5810		ug/L	81.9		20	J,A02
	MS	1822876-05	0.66200	39.723	40.000	ug/L		97.7	70 - 130	
	MSD	1822876-05	0.66200	40.022	40.000	ug/L	0.7	98.4	20 70 - 130	
<b>QC Batch ID: B019850</b>		Used client sample: Y - Description: MW-20-2, 07/23/2018 09:40								
Hexavalent Chromium	DUP	1822876-05	ND	ND		mg/L			10	
	MS	1822876-05	ND	0.051081	0.050000	mg/L		102	85 - 115	
	MSD	1822876-05	ND	0.051457	0.050000	mg/L	0.7	103	10 85 - 115	

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.



Date of Report: 08/20/2018

David Conner

Tidewater Inc.

3761 Attucks Drive

Powell, OH 43065

Client Project: 3Q18

BCL Project: JPL- GW Monitoring Wells

BCL Work Order: 1823058

Invoice ID:

Enclosed are the results of analyses for samples received by the laboratory on 7/24/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Table of Contents

### Sample Information

Chain of Custody and Cooler Receipt form.....	4
Laboratory / Client Sample Cross Reference.....	9

### Sample Results

<b>1823058-01 - TB-2-072418</b>	
Volatile Organic Analysis (EPA Method 524.2).....	13
Volatile Organic Analysis (EPA Method 524.2) TICs.....	16
<b>1823058-02 - MW-14-5</b>	
Volatile Organic Analysis (EPA Method 524.2).....	17
Volatile Organic Analysis (EPA Method 524.2) TICs.....	20
Water Analysis (General Chemistry).....	21
<b>1823058-03 - MW-14-4</b>	
Volatile Organic Analysis (EPA Method 524.2).....	22
Volatile Organic Analysis (EPA Method 524.2) TICs.....	25
Water Analysis (General Chemistry).....	26
<b>1823058-04 - MW-14-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	27
Volatile Organic Analysis (EPA Method 524.2) TICs.....	30
Water Analysis (General Chemistry).....	31
Metals Analysis.....	32
<b>1823058-05 - MW-14-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	33
Volatile Organic Analysis (EPA Method 524.2) TICs.....	36
Water Analysis (General Chemistry).....	37
Metals Analysis.....	38
<b>1823058-06 - MW-25-5</b>	
Volatile Organic Analysis (EPA Method 524.2).....	39
Volatile Organic Analysis (EPA Method 524.2) TICs.....	42
Water Analysis (General Chemistry).....	43
Metals Analysis.....	44
<b>1823058-07 - MW-25-4</b>	
Volatile Organic Analysis (EPA Method 524.2).....	45
Volatile Organic Analysis (EPA Method 524.2) TICs.....	48
Water Analysis (General Chemistry).....	49
Metals Analysis.....	50
<b>1823058-08 - MW-25-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	51
Volatile Organic Analysis (EPA Method 524.2) TICs.....	54
Water Analysis (General Chemistry).....	55
Metals Analysis.....	56
<b>1823058-09 - MW-25-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	57
Volatile Organic Analysis (EPA Method 524.2) TICs.....	60
Water Analysis (General Chemistry).....	61
Metals Analysis.....	62
<b>1823058-10 - MW-25-1</b>	
Volatile Organic Analysis (EPA Method 524.2).....	63
Volatile Organic Analysis (EPA Method 524.2) TICs.....	66
Water Analysis (General Chemistry).....	67
Metals Analysis.....	68
<b>1823058-11 - DUP-2-3Q18</b>	
Volatile Organic Analysis (EPA Method 524.2).....	69
Volatile Organic Analysis (EPA Method 524.2) TICs.....	72
Water Analysis (General Chemistry).....	73

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## Table of Contents

Metals Analysis.....	74
<b>1823058-12 - EB-2-072418</b>	
Volatile Organic Analysis (EPA Method 524.2).....	75
Volatile Organic Analysis (EPA Method 524.2) TICs.....	78
Water Analysis (General Chemistry).....	79
Metals Analysis.....	80
<b>Quality Control Reports</b>	
<b>Volatile Organic Analysis (EPA Method 524.2)</b>	
Method Blank Analysis.....	81
Laboratory Control Sample.....	84
Precision and Accuracy.....	85
<b>Volatile Organic Analysis (EPA Method 524.2) TICs</b>	
Method Blank Analysis.....	86
<b>Water Analysis (General Chemistry)</b>	
Method Blank Analysis.....	87
Laboratory Control Sample.....	88
Precision and Accuracy.....	89
<b>Metals Analysis</b>	
Method Blank Analysis.....	90
Laboratory Control Sample.....	91
Precision and Accuracy.....	92
<b>Notes</b>	
Notes and Definitions.....	93



Chain of Custody Form

Page 1 of 2

**Client:** Tidewater, Inc.  
**Attn:** David Conner  
**Address:** 3761 Allucks Drive  
**City:** Powell **State:** OH **Zip:** 43065  
**Phone:** 626 | 288 - 5715 **Fax:** 614 | 792 - 2897  
**Email:** david.conner@bclab20.net  
**Submission #:** 18-23058

**Project Description:** JPL-GW Monitoring  
**Project Code:** 3Q18  
**Sampler (s):** Blaine Tech  
*Jawa h. H. 0-5*

**Analysis Requested:**  
 VOCs EPA 524.2  Total Cr (200.8)  Perchlorate (EPA 314.0)  Chloride, Nitrate, Sulfate (300)  Orthophosphate (365.1)  Nitrite (363.2)  Hexavalent Cr (7196)

**Matrix:** S = Soil SL = Sludge / DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid  
 Turnaround # of working days:  24 Hr Rush  48 Hr Rush  3-5 Day Rush  Normal (10 - Days)  
 Lab TAT Approval: \_\_\_\_\_ \*Additional Charges May Apply

Sample #	Sample Description	Date	Time	Matrix*
-1	TB-2-078418	07/24/18	0700	GW
-2	MW-14-5		0730	GW
-3	MW-14-4		0750	GW
-4	MW-14-3		0830	GW
-5	MW-14-2		0905	GW
-6	MW-25-5		1045	GW
-7	MW-25-4		1115	GW
-8	MW-25-3		1140	GW
-9	MW-25-2		1205	GW
-10	MW-25-1		1240	GW

**Matrix Types:** S = Soil SL = Sludge / DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid  
 M = Miscellaneous O = Other

**Comments:**  
 PLEASE NOTATE WHICH SAMPLES TO USE FOR QC (MS/MSD)  
 90% Level III and 10% Level IV data validation required; Level IV Notated on C of C  
 NOTE: ALL ANALYSIS REQUIRED TO HAVE CALIBRATION SUMMARIES (Inform QC)

**Global ID:** \_\_\_\_\_  
 1. Relinquished by: \_\_\_\_\_ Date: 07/24/18 Time: 1405  
 2. Relinquished by: \_\_\_\_\_ Date: 7-24-18 Time: 1935  
 3. Relinquished by: \_\_\_\_\_ Date: 7-24-18 Time: 1935

**Analysis Requested:**  
 CHIKBY *DI-NOTATION*  
 SUB-OUT   
 IMS/MSD

**Short Holding Time:**  
 Cr+6 NO<sub>2</sub> NO<sub>3</sub> OP SS  
 DO Cl<sub>2</sub> BOD MBAS OOT

BC Laboratories, Inc. 4100 Atlas Court - Bakersfield CA 93308 (661) 327 - 4911 Fax: (661) 327 - 1918 www.bclabs.com

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# Laboratories, Inc.

Environmental Testing Laboratory Since 1949

## Chain of Custody Form

Page 2 of 2

**Report To:** Client: \* Tidewater, Inc.  
**Attn:** \* David Conner  
**Street Address:** \* 3761 Altucks Drive  
**City:** \* Powell **State:** \* OH **Zip:** \* 43095  
**Phone#:** \* 626 | 296 - 5715 **Fax#:** 614 | 792 - 2897  
**Email Address:** david.conner@tdelab20.net  
**Submission #:** 18-23058

**Project Description:** \* JPL-GW Monitoring  
**Project Code:** \* 3018  
**Sampler(s):** \* Blaine Tech  
Tishh Acas

Sample #	Sample Description	Date	Time	Matrix*
-11	DGP-2-3G18	07/24/18	1850	GW
-12	EB-2-072418	07/24/18	1310	GW

**Analysis Requested**

VOCs EPA 524.2	X
Total Cr (200.8)	X
Perchlorate (EPA 314.0)	X
Chloride, Nitrate, Sulfate (300)	
Orthophosphate (365.1)	
Nitrite (353.2)	X
Hexavalent Cr (7196)	X

**Billing**

Client: \* Tidewater, Inc.  
 Attn: \* David Conner  
 Address: \* 3761 Altucks Drive  
 City: \* Powell **State:** \* OH **Zip:** \* 43095

Are there any tests with holding times? less than or equal to 48 hours?  
 Yes  No  
 \*Standard Turnaround - 10

**Notes**

**Matrix Types:** S = Soil SL = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other

**Turnaround # of working days:**  24 Hr Rush  48 Hr Rush  3-5 Day Rush  Normal (10 - Days)

Lab TAT Approval: \_\_\_\_\_ \*Additional Charges May Apply

**Comments:**

PLEASE NOTATE WHICH SAMPLES TO USE FOR OC (MS/MSD)  
 90% Level III and 10% Level IV data validation required; Level IV Notated on C of C  
 NOTE: ALL ANALYSIS REQUIRED TO HAVE CALIBRATION SUMMARIES (Inform OC)

**Cost Center:**

1. Relinquished By:	<i>[Signature]</i>	Date:	07/24/18
2. Relinquished By:	<i>[Signature]</i>	Date:	07/24/18
3. Relinquished By:	<i>[Signature]</i>	Date:	07/24/18

**Global ID:**

1. Received By:	<i>[Signature]</i>	Date:	7-24-18
2. Received By:	<i>[Signature]</i>	Date:	7-24-18
3. Received By:	<i>[Signature]</i>	Date:	7-24-18

**Matrix Types:** S = Soil SL = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other  
 Turnaround # of working days:  24 Hr Rush  48 Hr Rush  3-5 Day Rush  Normal (10 - Days)  
 Lab TAT Approval: \_\_\_\_\_ \*Additional Charges May Apply

**Comments:**

PLEASE NOTATE WHICH SAMPLES TO USE FOR OC (MS/MSD)  
 90% Level III and 10% Level IV data validation required; Level IV Notated on C of C  
 NOTE: ALL ANALYSIS REQUIRED TO HAVE CALIBRATION SUMMARIES (Inform OC)

**Cost Center:**

1. Relinquished By:	<i>[Signature]</i>	Date:	07/24/18
2. Relinquished By:	<i>[Signature]</i>	Date:	07/24/18
3. Relinquished By:	<i>[Signature]</i>	Date:	07/24/18

**Global ID:**

1. Received By:	<i>[Signature]</i>	Date:	7-24-18
2. Received By:	<i>[Signature]</i>	Date:	7-24-18
3. Received By:	<i>[Signature]</i>	Date:	7-24-18

BC Laboratories, Inc. 4100 Atlas Court - Bakersfield CA 93308 (661) 327-4911 Fax: (661) 327-1918 www.bclabs.com

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Submission #: 1823058 Page 1 of 3

**SHIPPING INFORMATION**  
 Fed Ex  UPS  Ontrac  Hand Delivery   
 BC Lab Field Service  Other  (Specify) \_\_\_\_\_

**SHIPPING CONTAINER**  
 Ice Chest  None  Box   
 Other  (Specify) \_\_\_\_\_

**FREE LIQUID**  
 YES  NO  W / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO  
 Emissivity: 0.97 Container: PS Thermometer ID: 208 Date/Time: 7/24/10  
 Temperature: (A) 0.9 °C / (C) 60 °C Analyst Init: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES 4oz / 8oz / 16oz PE UNPRES 2oz Cr <sup>4+</sup>		0	0	GA	D	D				
QT INORGANIC CHEMICAL METALS INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz				ED	E	E				
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE 2oz. NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK AB	A	ABC	ABC	A-F	ABC	ABC	ABC	ABC	ABC	ABC
40ml VOA VIAL TB 094	A									
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 3015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: [Signature] Date/Time: 7/24/2010  
 A = Actual / C = Corrected



BC LABORATORIES INC. COOLER RECEIPT FORM Page 2 of 3

Submission #: 18-23058

SHIPPING INFORMATION: Fed Ex, UPS, Ontrac, Hand Delivery, BC Lab Field Service. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers, None. Comments:

All samples received? Yes, No. All samples containers intact? Yes, No. Description(s) match COC? Yes, No.

COC Received: YES, NO. Emissivity: 0.97. Container: 95. Thermometer ID: 208. Date/Time: 7/24/10 1935. Temperature: (A) 0.9 °C. Analyst Init: [Signature]

Table with columns for SAMPLE CONTAINERS and SAMPLE NUMBERS (1-10). Rows include various sample types like QT PE UNPRES, QT INORGANIC CHEMICAL METALS, etc. Handwritten 'ABC' and 'ABC' are in cells 1 and 2 of row 10.

Comments: Sample Numbering Completed By: GSP Date/Time: 7/24/2010 Rev 21 05/23/2016





BC LABORATORIES INC. COOLER RECEIPT FORM Page 2 of 5  
 Submission #: 18-23058

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) \_\_\_\_\_  
 SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_  
 FREE LIQUID: YES  NO  (W) / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_  
 Intact: Yes  No  Intact: Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received:  YES  NO  
 Emissivity: 0.97 Container: PE Thermometer ID: 208 Date/Time: 7/24/10 1955  
 Temperature: (A) 1.1 °C / (C) 1.2 °C Analyst Init: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: [Signature] Date/Time: 7/24/2010 Rev 21 05/23/2016  
 A = Actual / C = Corrected



Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1823058-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> TB-2-072418 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/24/2018 19:35 <b>Sampling Date:</b> 07/24/2018 07:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Blank Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): TB-2-072418 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1823058-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-14-5 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/24/2018 19:35 <b>Sampling Date:</b> 07/24/2018 07:30 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-14-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1823058-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-14-4 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/24/2018 19:35 <b>Sampling Date:</b> 07/24/2018 07:50 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-14-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1823058-04</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 07/24/2018 19:35
	<b>Project Number:</b> JPL GW Monitoring	<b>Sampling Date:</b> 07/24/2018 08:30
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> MW-14-3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Think Hoang of BTST	<b>Sample Type:</b> Groundwater
		Delivery Work Order:
		Global ID: 0000000000
		Location ID (FieldPoint): MW-14-3
		Matrix: W
		Sample QC Type (SACode): CS
		Cooler ID:

<b>1823058-05</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 07/24/2018 19:35
	<b>Project Number:</b> JPL GW Monitoring	<b>Sampling Date:</b> 07/24/2018 09:05
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> MW-14-2	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Think Hoang of BTST	<b>Sample Type:</b> Groundwater
		Delivery Work Order:
		Global ID: 0000000000
		Location ID (FieldPoint): MW-14-2
		Matrix: W
		Sample QC Type (SACode): CS
		Cooler ID:

<b>1823058-06</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 07/24/2018 19:35
	<b>Project Number:</b> JPL GW Monitoring	<b>Sampling Date:</b> 07/24/2018 10:45
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> MW-25-5	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Think Hoang of BTST	<b>Sample Type:</b> Groundwater
		Delivery Work Order:
		Global ID: 0000000000
		Location ID (FieldPoint): MW-25-5
		Matrix: W
		Sample QC Type (SACode): CS
		Cooler ID:

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1823058-07</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-25-4 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/24/2018 19:35 <b>Sampling Date:</b> 07/24/2018 11:15 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-25-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1823058-08</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-25-3 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/24/2018 19:35 <b>Sampling Date:</b> 07/24/2018 11:40 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-25-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1823058-09</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-25-2 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/24/2018 19:35 <b>Sampling Date:</b> 07/24/2018 12:05 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-25-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1823058-10</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-25-1 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/24/2018 19:35 <b>Sampling Date:</b> 07/24/2018 12:40 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-25-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1823058-11</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> DUP-2-3Q18 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/24/2018 19:35 <b>Sampling Date:</b> 07/24/2018 12:50 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): DUP-2-3Q18 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1823058-12</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> EB-2-072418 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/24/2018 19:35 <b>Sampling Date:</b> 07/24/2018 13:10 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): EB-2-072418 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-01	<b>Client Sample Name:</b> JPL GW Monitoring, TB-2-072418, 7/24/2018 7:00:00AM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-01	<b>Client Sample Name:</b> JPL GW Monitoring, TB-2-072418, 7/24/2018 7:00:00AM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-01	<b>Client Sample Name:</b> JPL GW Monitoring, TB-2-072418, 7/24/2018 7:00:00AM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	95.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	102	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 13:38	MGC	MS-V5	1	B020162

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Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823058-01	<b>Client Sample Name:</b> JPL GW Monitoring, TB-2-072418, 7/24/2018 7:00:00AM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 13:38	MGC	MS-V5	1	B020162

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Powell, OH 43065

Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-02	<b>Client Sample Name:</b> JPL GW Monitoring, MW-14-5, 7/24/2018 7:30:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-02	<b>Client Sample Name:</b> JPL GW Monitoring, MW-14-5, 7/24/2018 7:30:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-02	<b>Client Sample Name:</b> JPL GW Monitoring, MW-14-5, 7/24/2018 7:30:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.8	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	104	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 14:01	MGC	MS-V5	1	B020162

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Powell, OH 43065

**Reported:** 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823058-02	<b>Client Sample Name:</b> JPL GW Monitoring, MW-14-5, 7/24/2018 7:30:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 14:01	MGC	MS-V5	1	B020162

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Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823058-02	<b>Client Sample Name:</b> JPL GW Monitoring, MW-14-5, 7/24/2018 7:30:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/14/18 23:00	08/15/18 01:15	EMW	IC6	1	B021575

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Powell, OH 43065

Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-03	<b>Client Sample Name:</b> JPL GW Monitoring, MW-14-4, 7/24/2018 7:50:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.16</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-03	<b>Client Sample Name:</b> JPL GW Monitoring, MW-14-4, 7/24/2018 7:50:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Powell, OH 43065

**Reported:** 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-03	<b>Client Sample Name:</b> JPL GW Monitoring, MW-14-4, 7/24/2018 7:50:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	107	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	95.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 14:24	MGC	MS-V5	1	B020162

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823058-03	<b>Client Sample Name:</b> JPL GW Monitoring, MW-14-4, 7/24/2018 7:50:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 14:24	MGC	MS-V5	1	B020162

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Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823058-03	<b>Client Sample Name:</b> JPL GW Monitoring, MW-14-4, 7/24/2018 7:50:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	3.5	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/14/18 23:00	08/15/18 02:47	EMW	IC6	1	B021575

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Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-04	<b>Client Sample Name:</b> JPL GW Monitoring, MW-14-3, 7/24/2018 8:30:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.45</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
<b>1,1-Dichloroethane</b>	<b>0.32</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.15</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Powell, OH 43065

Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-04	<b>Client Sample Name:</b> JPL GW Monitoring, MW-14-3, 7/24/2018 8:30:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.54</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>1.0</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Powell, OH 43065

**Reported:** 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-04	<b>Client Sample Name:</b> JPL GW Monitoring, MW-14-3, 7/24/2018 8:30:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	110	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/30/18 14:45	MGC	MS-V5	1	B020162

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**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823058-04	<b>Client Sample Name:</b> JPL GW Monitoring, MW-14-3, 7/24/2018 8:30:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/30/18 14:45	MGC	MS-V5	1	B020162

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**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823058-04	<b>Client Sample Name:</b> JPL GW Monitoring, MW-14-3, 7/24/2018 8:30:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	4.1	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/14/18 23:00	08/15/18 03:03	EMW	IC6	1	B021575

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**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823058-04	<b>Client Sample Name:</b> JPL GW Monitoring, MW-14-3, 7/24/2018 8:30:00AM, Thinh Hoang							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.4</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>1.1</b>	<b>J</b>	<b>2</b>

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	07/24/18 22:48	07/24/18 22:48	SAV	KONE-1	1	B019851
2	EPA-200.8	07/30/18 09:30	07/31/18 17:59	MH1	PE-EL3	1	B020210

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Powell, OH 43065

Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-05	<b>Client Sample Name:</b> JPL GW Monitoring, MW-14-2, 7/24/2018 9:05:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.43</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
<b>1,1-Dichloroethane</b>	<b>0.16</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.15</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-05	<b>Client Sample Name:</b> JPL GW Monitoring, MW-14-2, 7/24/2018 9:05:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.33</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>1.2</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-05	<b>Client Sample Name:</b> JPL GW Monitoring, MW-14-2, 7/24/2018 9:05:00AM, Thinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	105	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	97.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/30/18 15:08	MGC	MS-V5	1	B020162

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Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823058-05	<b>Client Sample Name:</b> JPL GW Monitoring, MW-14-2, 7/24/2018 9:05:00AM, Thinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/30/18 15:08	MGC	MS-V5	1	B020162

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**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823058-05	<b>Client Sample Name:</b> JPL GW Monitoring, MW-14-2, 7/24/2018 9:05:00AM, Thinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	3.4	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/14/18 23:00	08/15/18 03:18	EMW	IC6	1	B021575

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**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823058-05	<b>Client Sample Name:</b> JPL GW Monitoring, MW-14-2, 7/24/2018 9:05:00AM, Thinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.3</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	1.1	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	07/24/18 22:48	07/24/18 22:48	SAV	KONE-1	1	B019851
2	EPA-200.8	07/30/18 09:30	07/31/18 18:46	MH1	PE-EL3	1	B020210

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Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-06	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-5, 7/24/2018 10:45:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 1823058-06		Client Sample Name: JPL GW Monitoring, MW-25-5, 7/24/2018 10:45:00AM, Tinh Hoang						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Powell, OH 43065

**Reported:** 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-06	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-5, 7/24/2018 10:45:00AM, Tinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 14:47	MGC	MS-V5	1	B020162

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**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823058-06	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-5, 7/24/2018 10:45:00AM, Tinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 14:47	MGC	MS-V5	1	B020162

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**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823058-06	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-5, 7/24/2018 10:45:00AM, Tinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/14/18 23:00	08/15/18 03:33	EMW	IC6	1	B021575

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Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823058-06	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-5, 7/24/2018 10:45:00AM, Tinh Hoang							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.3</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>1.1</b>	<b>J</b>	<b>2</b>

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	07/24/18 22:48	07/24/18 22:48	SAV	KONE-1	1	B019851
2	EPA-200.8	07/30/18 09:30	07/31/18 18:49	MH1	PE-EL3	1	B020210

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Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-07	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-4, 7/24/2018 11:15:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-07	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-4, 7/24/2018 11:15:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
<b>Carbon disulfide</b>	<b>0.91</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.48</b>	<b>EPA-524.2</b>	ND	<b>J</b>	<b>1</b>
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-07	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-4, 7/24/2018 11:15:00AM, Tinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	96.9	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	99.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 15:10	MGC	MS-V5	1	B020162

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Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823058-07	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-4, 7/24/2018 11:15:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 15:10	MGC	MS-V5	1	B020162

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823058-07	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-4, 7/24/2018 11:15:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	8.3	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/14/18 23:00	08/15/18 03:49	EMW	IC6	1	B021575

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Tidewater Inc.  
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Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823058-07	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-4, 7/24/2018 11:15:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0011	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
<b>Total Recoverable Chromium</b>	<b>3.0</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>1.1</b>		<b>2</b>

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/24/18 22:48	07/24/18 22:48		SAV	KONE-1	1	B019851
2	EPA-200.8	07/30/18 09:30	07/31/18 18:53		MH1	PE-EL3	1	B020210

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Powell, OH 43065

Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-08	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-3, 7/24/2018 11:40:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.27</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-08	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-3, 7/24/2018 11:40:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.28</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Powell, OH 43065

Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-08	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-3, 7/24/2018 11:40:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	105	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	96.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 15:34	MGC	MS-V5	1	B020162

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823058-08	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-3, 7/24/2018 11:40:00AM, Tinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 15:34	MGC	MS-V5	1	B020162

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Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823058-08	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-3, 7/24/2018 11:40:00AM, Tinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	8.8	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/14/18 23:00	08/15/18 04:04	EMW	IC6	1	B021575

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Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823058-08	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-3, 7/24/2018 11:40:00AM, Tinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0035	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>4.3</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>1.1</b>		<b>2</b>

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/24/18 22:48	07/24/18 22:48		SAV	KONE-1	1	B019851
2	EPA-200.8	07/30/18 09:30	07/31/18 18:56		MH1	PE-EL3	1	B020210

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Powell, OH 43065

Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-09	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-2, 7/24/2018 12:05:00PM, Tinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-09	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-2, 7/24/2018 12:05:00PM, Tinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-09	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-2, 7/24/2018 12:05:00PM, Tinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	106	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	96.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 15:57	MGC	MS-V5	1	B020162

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Powell, OH 43065

**Reported:** 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823058-09	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-2, 7/24/2018 12:05:00PM, Tinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 15:57	MGC	MS-V5	1	B020162

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Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823058-09	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-2, 7/24/2018 12:05:00PM, Tinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	13	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/14/18 23:00	08/15/18 04:19	EMW	IC6	1	B021575

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Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823058-09	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-2, 7/24/2018 12:05:00PM, Tinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0035	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	4.0	ug/L	3.0	0.50	EPA-200.8	1.1		2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/24/18 22:48	07/24/18 22:51		SAV	KONE-1	1	B019851
2	EPA-200.8	07/30/18 09:30	07/31/18 19:00		MH1	PE-EL3	1	B020210

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Powell, OH 43065

Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-10	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-1, 7/24/2018 12:40:00PM, Tinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.37</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 1823058-10		Client Sample Name: JPL GW Monitoring, MW-25-1, 7/24/2018 12:40:00PM, Tinh Hoang						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Methyl t-butyl ether</b>	<b>0.46</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.98</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-10	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-1, 7/24/2018 12:40:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.7	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	90.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 16:20	MGC	MS-V5	1	B020162

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**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823058-10	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-1, 7/24/2018 12:40:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 16:20	MGC	MS-V5	1	B020162

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Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823058-10	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-1, 7/24/2018 12:40:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	7.1	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/14/18 23:00	08/15/18 13:43	MIG	IC6	1	B021575

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**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823058-10	<b>Client Sample Name:</b> JPL GW Monitoring, MW-25-1, 7/24/2018 12:40:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>2.7</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	1.1	J	2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/24/18 22:48	07/24/18 23:27		SAV	KONE-1	1	B019851
2	EPA-200.8	07/30/18 09:30	07/31/18 19:03		MH1	PE-EL3	1	B020210

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Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-11	<b>Client Sample Name:</b> JPL GW Monitoring, DUP-2-3Q18, 7/24/2018 12:50:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.41</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-11	<b>Client Sample Name:</b> JPL GW Monitoring, DUP-2-3Q18, 7/24/2018 12:50:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Methyl t-butyl ether</b>	<b>0.35</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.88</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-11	<b>Client Sample Name:</b> JPL GW Monitoring, DUP-2-3Q18, 7/24/2018 12:50:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	109	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 16:43	MGC	MS-V5	1	B020162

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Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823058-11	<b>Client Sample Name:</b> JPL GW Monitoring, DUP-2-3Q18, 7/24/2018 12:50:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 16:43	MGC	MS-V5	1	B020162

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823058-11	<b>Client Sample Name:</b> JPL GW Monitoring, DUP-2-3Q18, 7/24/2018 12:50:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	6.1	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/14/18 23:00	08/15/18 04:50	EMW	IC6	1	B021575

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**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823058-11	<b>Client Sample Name:</b> JPL GW Monitoring, DUP-2-3Q18, 7/24/2018 12:50:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>2.5</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	1.1	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	07/24/18 22:48	07/24/18 23:27	SAV	KONE-1	1	B019851
2	EPA-200.8	07/30/18 09:30	07/31/18 19:06	MH1	PE-EL3	1	B020210

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Powell, OH 43065

Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-12	<b>Client Sample Name:</b> JPL GW Monitoring, EB-2-072418, 7/24/2018 1:10:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-12	<b>Client Sample Name:</b> JPL GW Monitoring, EB-2-072418, 7/24/2018 1:10:00PM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823058-12	<b>Client Sample Name:</b> JPL GW Monitoring, EB-2-072418, 7/24/2018 1:10:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.0	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	95.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 19:48	MGC	MS-V5	1	B020162

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823058-12	<b>Client Sample Name:</b> JPL GW Monitoring, EB-2-072418, 7/24/2018 1:10:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 19:48	MGC	MS-V5	1	B020162

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Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823058-12	<b>Client Sample Name:</b> JPL GW Monitoring, EB-2-072418, 7/24/2018 1:10:00PM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/14/18 23:00	08/15/18 11:10	EMW	IC6	1	B021575

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Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823058-12	<b>Client Sample Name:</b> JPL GW Monitoring, EB-2-072418, 7/24/2018 1:10:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>0.96</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	1.1	J	2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	07/24/18 22:48	07/24/18 22:51	SAV	KONE-1	1	B019851
2	EPA-200.8	07/30/18 09:30	07/31/18 19:10	MH1	PE-EL3	1	B020210

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**Reported:** 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020162</b>						
Benzene	B020162-BLK1	ND	ug/L	0.50	0.11	
Bromobenzene	B020162-BLK1	ND	ug/L	0.50	0.15	
Bromochloromethane	B020162-BLK1	ND	ug/L	0.50	0.27	
Bromodichloromethane	B020162-BLK1	ND	ug/L	0.50	0.20	
Bromoform	B020162-BLK1	ND	ug/L	0.50	0.46	
Bromomethane	B020162-BLK1	ND	ug/L	0.50	0.20	
n-Butylbenzene	B020162-BLK1	ND	ug/L	0.50	0.15	
sec-Butylbenzene	B020162-BLK1	ND	ug/L	0.50	0.13	
tert-Butylbenzene	B020162-BLK1	ND	ug/L	0.50	0.18	
Carbon tetrachloride	B020162-BLK1	ND	ug/L	0.50	0.17	
Chlorobenzene	B020162-BLK1	ND	ug/L	0.50	0.14	
Chloroethane	B020162-BLK1	ND	ug/L	0.50	0.17	
Chloroform	B020162-BLK1	ND	ug/L	0.50	0.14	
Chloromethane	B020162-BLK1	ND	ug/L	0.50	0.11	
2-Chlorotoluene	B020162-BLK1	ND	ug/L	0.50	0.14	
4-Chlorotoluene	B020162-BLK1	ND	ug/L	0.50	0.093	
Dibromochloromethane	B020162-BLK1	ND	ug/L	0.50	0.22	
1,2-Dibromo-3-chloropropane	B020162-BLK1	ND	ug/L	1.0	0.89	
1,2-Dibromoethane	B020162-BLK1	ND	ug/L	0.50	0.22	
Dibromomethane	B020162-BLK1	ND	ug/L	0.50	0.23	
1,2-Dichlorobenzene	B020162-BLK1	ND	ug/L	0.50	0.21	
1,3-Dichlorobenzene	B020162-BLK1	ND	ug/L	0.50	0.16	
1,4-Dichlorobenzene	B020162-BLK1	ND	ug/L	0.50	0.15	
Dichlorodifluoromethane	B020162-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethane	B020162-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloroethane	B020162-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	B020162-BLK1	ND	ug/L	0.50	0.27	
cis-1,2-Dichloroethene	B020162-BLK1	ND	ug/L	0.50	0.27	
trans-1,2-Dichloroethene	B020162-BLK1	ND	ug/L	0.50	0.17	
1,2-Dichloropropane	B020162-BLK1	ND	ug/L	0.50	0.15	
1,3-Dichloropropane	B020162-BLK1	ND	ug/L	0.50	0.13	
2,2-Dichloropropane	B020162-BLK1	ND	ug/L	0.50	0.18	
1,1-Dichloropropene	B020162-BLK1	ND	ug/L	0.50	0.19	
cis-1,3-Dichloropropene	B020162-BLK1	ND	ug/L	0.50	0.14	

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020162</b>						
trans-1,3-Dichloropropene	B020162-BLK1	ND	ug/L	0.50	0.13	
Ethylbenzene	B020162-BLK1	ND	ug/L	0.50	0.15	
Hexachlorobutadiene	B020162-BLK1	ND	ug/L	0.50	0.20	
Isopropylbenzene	B020162-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	B020162-BLK1	ND	ug/L	0.50	0.14	
Methylene chloride	B020162-BLK1	ND	ug/L	0.50	0.21	
Methyl t-butyl ether	B020162-BLK1	ND	ug/L	0.50	0.14	
Naphthalene	B020162-BLK1	ND	ug/L	0.50	0.16	
n-Propylbenzene	B020162-BLK1	ND	ug/L	0.50	0.12	
Styrene	B020162-BLK1	ND	ug/L	0.50	0.12	
1,1,1,2-Tetrachloroethane	B020162-BLK1	ND	ug/L	0.50	0.21	
1,1,1,2,2-Tetrachloroethane	B020162-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	B020162-BLK1	ND	ug/L	0.50	0.23	
Toluene	B020162-BLK1	ND	ug/L	0.50	0.17	
1,2,3-Trichlorobenzene	B020162-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trichlorobenzene	B020162-BLK1	ND	ug/L	0.50	0.15	
1,1,1-Trichloroethane	B020162-BLK1	ND	ug/L	0.50	0.21	
1,1,2-Trichloroethane	B020162-BLK1	ND	ug/L	0.50	0.21	
Trichloroethene	B020162-BLK1	ND	ug/L	0.50	0.19	
Trichlorofluoromethane	B020162-BLK1	ND	ug/L	0.50	0.14	
1,2,3-Trichloropropane	B020162-BLK1	ND	ug/L	1.0	0.78	
1,1,2-Trichloro-1,2,2-trifluoroethane	B020162-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trimethylbenzene	B020162-BLK1	ND	ug/L	0.50	0.17	
1,3,5-Trimethylbenzene	B020162-BLK1	ND	ug/L	0.50	0.14	
Vinyl chloride	B020162-BLK1	ND	ug/L	0.50	0.18	
Acetone	B020162-BLK1	ND	ug/L	10	6.6	
Acrylonitrile	B020162-BLK1	ND	ug/L	5.0	1.5	
Allyl chloride	B020162-BLK1	ND	ug/L	5.0	0.47	
t-Amyl Methyl ether	B020162-BLK1	ND	ug/L	0.50	0.19	
t-Butyl alcohol	B020162-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	B020162-BLK1	ND	ug/L	1.0	0.48	
trans-1,4-Dichloro-2-butene	B020162-BLK1	ND	ug/L	5.0	1.8	
Diethyl ether	B020162-BLK1	ND	ug/L	2.0	0.33	
Ethyl methacrylate	B020162-BLK1	ND	ug/L	4.0	1.3	

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020162</b>						
Ethyl t-butyl ether	B020162-BLK1	ND	ug/L	0.50	0.32	
Hexachloroethane	B020162-BLK1	ND	ug/L	0.50	0.11	
2-Hexanone	B020162-BLK1	ND	ug/L	10	5.0	
Methacrylonitrile	B020162-BLK1	ND	ug/L	10	2.3	
Methyl ethyl ketone	B020162-BLK1	ND	ug/L	10	3.3	
Methyl iodide	B020162-BLK1	ND	ug/L	2.0	1.1	
Methyl isobutyl ketone	B020162-BLK1	ND	ug/L	10	2.4	
Methyl methacrylate	B020162-BLK1	ND	ug/L	5.0	1.2	
Pentachloroethane	B020162-BLK1	ND	ug/L	2.0	0.63	
Propionitrile	B020162-BLK1	ND	ug/L	20	6.2	
Tetrahydrofuran	B020162-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	B020162-BLK1	ND	ug/L	0.50	0.34	
o-Xylene	B020162-BLK1	ND	ug/L	0.50	0.13	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>B020162-BLK1</b>	<b>110</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>B020162-BLK1</b>	<b>96.9</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>B020162-BLK1</b>	<b>102</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B020162</b>										
Benzene	B020162-BS1	LCS	24.790	25.000	ug/L	99.2		70 - 130		
Bromodichloromethane	B020162-BS1	LCS	25.960	25.000	ug/L	104		70 - 130		
Chlorobenzene	B020162-BS1	LCS	24.530	25.000	ug/L	98.1		70 - 130		
Chloroethane	B020162-BS1	LCS	24.850	25.000	ug/L	99.4		70 - 130		
1,4-Dichlorobenzene	B020162-BS1	LCS	24.340	25.000	ug/L	97.4		70 - 130		
1,1-Dichloroethane	B020162-BS1	LCS	24.920	25.000	ug/L	99.7		70 - 130		
1,1-Dichloroethene	B020162-BS1	LCS	25.700	25.000	ug/L	103		70 - 130		
Toluene	B020162-BS1	LCS	23.930	25.000	ug/L	95.7		70 - 130		
Trichloroethene	B020162-BS1	LCS	23.690	25.000	ug/L	94.8		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B020162-BS1	LCS	10.570	10.000	ug/L	106		75 - 125		
Toluene-d8 (Surrogate)	B020162-BS1	LCS	9.9700	10.000	ug/L	99.7		80 - 120		
4-Bromofluorobenzene (Surrogate)	B020162-BS1	LCS	10.180	10.000	ug/L	102		80 - 120		

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery		Lab
								RPD	Percent Recovery	
<b>QC Batch ID: B020162</b>										
Used client sample: Y - Description: MW-14-3, 07/24/2018 08:30										
Benzene	MS	1823058-04	ND	25.280	25.000	ug/L		101		70 - 130
	MSD	1823058-04	ND	25.740	25.000	ug/L	1.8	103	20	70 - 130
Bromodichloromethane	MS	1823058-04	ND	26.680	25.000	ug/L		107		70 - 130
	MSD	1823058-04	ND	26.340	25.000	ug/L	1.3	105	20	70 - 130
Chlorobenzene	MS	1823058-04	ND	25.060	25.000	ug/L		100		70 - 130
	MSD	1823058-04	ND	25.530	25.000	ug/L	1.9	102	20	70 - 130
Chloroethane	MS	1823058-04	ND	26.650	25.000	ug/L		107		70 - 130
	MSD	1823058-04	ND	27.040	25.000	ug/L	1.5	108	20	70 - 130
1,4-Dichlorobenzene	MS	1823058-04	ND	24.360	25.000	ug/L		97.4		70 - 130
	MSD	1823058-04	ND	24.850	25.000	ug/L	2.0	99.4	20	70 - 130
1,1-Dichloroethane	MS	1823058-04	0.32000	26.200	25.000	ug/L		104		70 - 130
	MSD	1823058-04	0.32000	26.660	25.000	ug/L	1.7	105	20	70 - 130
1,1-Dichloroethene	MS	1823058-04	ND	26.710	25.000	ug/L		107		70 - 130
	MSD	1823058-04	ND	26.210	25.000	ug/L	1.9	105	20	70 - 130
Toluene	MS	1823058-04	ND	24.440	25.000	ug/L		97.8		70 - 130
	MSD	1823058-04	ND	24.520	25.000	ug/L	0.3	98.1	20	70 - 130
Trichloroethene	MS	1823058-04	1.0000	25.250	25.000	ug/L		97.0		70 - 130
	MSD	1823058-04	1.0000	25.240	25.000	ug/L	0.0	97.0	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1823058-04	ND	10.280	10.000	ug/L		103		75 - 125
	MSD	1823058-04	ND	10.160	10.000	ug/L	1.2	102		75 - 125
Toluene-d8 (Surrogate)	MS	1823058-04	ND	9.7600	10.000	ug/L		97.6		80 - 120
	MSD	1823058-04	ND	9.7400	10.000	ug/L	0.2	97.4		80 - 120
4-Bromofluorobenzene (Surrogate)	MS	1823058-04	ND	10.050	10.000	ug/L		100		80 - 120
	MSD	1823058-04	ND	9.6700	10.000	ug/L	3.9	96.7		80 - 120

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020162</b>						
Chloroacetonitrile	B020162-BLK1	0	ug/L			
1-Chlorobutane	B020162-BLK1	0	ug/L			
1,1-Dichloropropanone	B020162-BLK1	0	ug/L			
Methyl acrylate	B020162-BLK1	0	ug/L			
Nitrobenzene	B020162-BLK1	0	ug/L			
2-Nitropropane	B020162-BLK1	0	ug/L			

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Tidewater Inc.  
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Powell, OH 43065

**Reported:** 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B021575</b>						
Perchlorate	B021575-BLK1	ND	ug/L	4.0	0.58	

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B021575</b>										
Perchlorate	B021575-BS1	LCS	10.912	10.000	ug/L	109		85	115	

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Powell, OH 43065

**Reported:** 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B021575</b>		Used client sample: Y - Description: MW-14-5, 07/24/2018 07:30								
Perchlorate	DUP	1823058-02	ND	ND		ug/L			15	
	MS	1823058-02	ND	8.4418	10.101	ug/L		83.6		80 - 120
	MSD	1823058-02	ND	8.4757	10.101	ug/L	0.4	83.9	15	80 - 120

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Tidewater Inc.  
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Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B019851</b>						
Hexavalent Chromium	B019851-BLK1	ND	mg/L	0.0020	0.00070	
<b>QC Batch ID: B020210</b>						
Total Recoverable Chromium	B020210-BLK1	1.0510	ug/L	3.0	0.50	J

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:51  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Metals Analysis

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B019851</b>										
Hexavalent Chromium	B019851-BS1	LCS	0.052432	0.050000	mg/L	105		85 - 115		
<b>QC Batch ID: B020210</b>										
Total Recoverable Chromium	B020210-BS1	LCS	44.822	40.000	ug/L	112		85 - 115		

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B019851</b>		Used client sample: Y - Description: MW-14-3, 07/24/2018 08:30								
Hexavalent Chromium	DUP	1823058-04	ND	ND		mg/L			10	
	MS	1823058-04	ND	0.053191	0.052632	mg/L		101		85 - 115
	MSD	1823058-04	ND	0.053788	0.052632	mg/L	1.1	102	10	85 - 115
<b>QC Batch ID: B020210</b>		Used client sample: Y - Description: MW-14-3, 07/24/2018 08:30								
Total Recoverable Chromium	DUP	1823058-04	1.4090	ND		ug/L			20	
	MS	1823058-04	1.4090	39.508	40.000	ug/L		95.2		70 - 130
	MSD	1823058-04	1.4090	39.159	40.000	ug/L	0.9	94.4	20	70 - 130

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/20/2018 9:51  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit



Date of Report: 08/21/2018

David Conner

Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Client Project: 3Q18  
BCL Project: JPL- GW Monitoring Wells  
BCL Work Order: 1823213  
Invoice ID:

Enclosed are the results of analyses for samples received by the laboratory on 7/25/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Table of Contents

### Sample Information

Chain of Custody and Cooler Receipt form.....	4
Laboratory / Client Sample Cross Reference.....	7

### Sample Results

<b>1823213-01 - TB-3-072518</b>	
Volatile Organic Analysis (EPA Method 524.2).....	11
Volatile Organic Analysis (EPA Method 524.2) TICs.....	14
<b>1823213-02 - MW-3-4</b>	
Volatile Organic Analysis (EPA Method 524.2).....	15
Volatile Organic Analysis (EPA Method 524.2) TICs.....	18
Water Analysis (General Chemistry).....	19
Metals Analysis.....	20
<b>1823213-03 - MW-3-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	21
Volatile Organic Analysis (EPA Method 524.2) TICs.....	24
Water Analysis (General Chemistry).....	25
Metals Analysis.....	26
<b>1823213-04 - MW-3-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	27
Volatile Organic Analysis (EPA Method 524.2) TICs.....	30
Water Analysis (General Chemistry).....	31
Metals Analysis.....	32
<b>1823213-05 - MW-18-5</b>	
Volatile Organic Analysis (EPA Method 524.2).....	33
Volatile Organic Analysis (EPA Method 524.2) TICs.....	36
Water Analysis (General Chemistry).....	37
<b>1823213-06 - MW-18-4</b>	
Volatile Organic Analysis (EPA Method 524.2).....	38
Volatile Organic Analysis (EPA Method 524.2) TICs.....	41
Water Analysis (General Chemistry).....	42
Metals Analysis.....	43
<b>1823213-07 - MW-18-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	44
Volatile Organic Analysis (EPA Method 524.2) TICs.....	47
Water Analysis (General Chemistry).....	48
Metals Analysis.....	49
<b>1823213-08 - MW-18-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	50
Volatile Organic Analysis (EPA Method 524.2) TICs.....	53
Water Analysis (General Chemistry).....	54
Metals Analysis.....	55
<b>1823213-09 - MW-26-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	56
Volatile Organic Analysis (EPA Method 524.2) TICs.....	59
Water Analysis (General Chemistry).....	60
Metals Analysis.....	61
<b>1823213-10 - MW-26-1</b>	
Volatile Organic Analysis (EPA Method 524.2).....	62
Volatile Organic Analysis (EPA Method 524.2) TICs.....	65
Water Analysis (General Chemistry).....	66
Metals Analysis.....	67
<b>1823213-11 - EB-3-072518</b>	
Volatile Organic Analysis (EPA Method 524.2).....	68
Volatile Organic Analysis (EPA Method 524.2) TICs.....	71

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## Table of Contents

Water Analysis (General Chemistry).....	72
Metals Analysis.....	73
<b>Quality Control Reports</b>	
<b>Volatile Organic Analysis (EPA Method 524.2)</b>	
Method Blank Analysis.....	74
Laboratory Control Sample.....	79
Precision and Accuracy.....	80
<b>Volatile Organic Analysis (EPA Method 524.2) TICs</b>	
Method Blank Analysis.....	82
<b>Water Analysis (General Chemistry)</b>	
Method Blank Analysis.....	83
Laboratory Control Sample.....	84
Precision and Accuracy.....	85
<b>Metals Analysis</b>	
Method Blank Analysis.....	86
Laboratory Control Sample.....	87
Precision and Accuracy.....	88
<b>Notes</b>	
Notes and Definitions.....	89



Chain of Custody Form

Report To: Client: Tidewater, Inc. Attn: David Connor  
 Street Address: 3761 Allucks Drive City: Powell State: OH Zip: 43065  
 Phone: 626 J 288 - 5715 Fax: 614 J 792 - 2897  
 Email Address: david.conner@tidh2o.net  
 Submission #: 1823213

Project Description: JPL-GW Monitoring  
 Project Code: 3018  
 Sampler (s): Blaine Tech  
 Think Hoey

Analysis Requested:  
 VOCs EPA 524.2  
 Total Cr (200.8)  
 Perchlorate (EPA 314.0)  
 Chloride, Nitrate, Sulfate (300)  
 Orthophosphate (365.1)  
 Nitrite (353.2)  
 Hexavalent Cr (719B)

Sample #	Sample Description	Date	Time	Matrix*
1	TB-3-072518	07/25/18	0700	GW
2	MW-3-4		0735	GW
3	MW-3-3		0800	GW
4	MW-3-2		0850	GW
5	MW-18-5		0920	GW
6	MW-18-4		0950	GW
7	MW-18-3		1015	GW
8	MW-18-2		1045	GW
9	MW-26-2		1220	GW
10	MW-26-1		1345	GW
11	EB-3-072518		1300	GW

Notes:  
 Level 1 TV  
 CHLORINE DISTRIBUTION  
 KLMWV  
 SUB-OUT  
 SHORT HOLDING TIME  
 Cr:3 NO<sub>3</sub> NO<sub>2</sub> OP SS  
 SO Cl<sub>2</sub> BOD MBAS COT

Matrix Types: S = Soil SL = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other

Turnaround # of working days: 24 Hr Rush 48 Hr Rush 3-5 Day Rush 3-5 Day Rush  Normal (10 - Days)

Lab TAT Approval: \*Additional Charges May Apply

Comments:  
 PLEASE NOTATE WHICH SAMPLES TO USE FOR QC (MS/MSD)  
 90% Level III and 10% Level IV data validation required; Level IV Notated on C of C  
 NOTE: ALL ANALYSIS REQUIRED TO HAVE CALIBRATION SUMMARIES (Inform OC)

Cost Center:  
 1. Relinquished By: [Signature] Date: 7/25/18 Time: 1400  
 2. Relinquished By: [Signature] Date: 7-25-18 Time: 3:59  
 3. Relinquished By: [Signature] Date: 7-25-18 Time: 1300

Global ID: [Signature] Date: 7-25-18 Time: 1850

BC Laboratories, Inc. 4100 Atlas Court - Bakersfield CA 93308 (661) 327 - 4911 Fax: (661) 327 - 1918 www.bclabs.com

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# Laboratories, Inc.

Environmental Testing Laboratory Since 1949

BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 2

Submission #: 1823213

SHIPPING INFORMATION  
Fed Ex  UPS  Ontrac  Hand Delivery   
BC Lab Field Service  Other  (Specify) \_\_\_\_\_

SHIPPING CONTAINER  
Ice Chest  None  Box   
Other  (Specify) \_\_\_\_\_

FREE LIQUID  
YES  NO   
W / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  
 YES  NO

Emissivity: 0.97 Container: VB Thermometer ID: 208  
Temperature: (A) 0.2 °C / (C) 0.3 °C

Date/Time 7/25/18 1800  
Analyst Init VR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRS										
4oz / 8oz / 16oz PE UNPRS										
2oz Cr <sup>4+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz		E	E	E		E	E	E	E	E
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK	A									
40ml VOA VIAL		ABC	ABC	ABC	ABC	ABC	ABC	ABC	ABC	ABC
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 502/508/5080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 3015M										
QT EPA 8170										
8oz / 16oz / 32oz AMBR										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
Sample Numbering Completed By: VR Date/Time: 7/25/18  
A = Actual / C = Corrected



BC LABORATORIES INC. COOLER RECEIPT FORM Page 2 of 2

Submission #: 1823213

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

FREE LIQUID: YES  NO  W / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received:  YES  NO

Emissivity: 0.97 Container: [Signature] Thermometer ID: 7078 Date/Time: 7/25/18 1800

Temperature: (A) 0.2 °C / (C) 0.3 °C Analyst Init: VR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz	E									
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	ABC									
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504										
QT EPA 516/518/520										
QT EPA 515.1/515										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: [Signature] Date/Time: 7/25/18

A = Actual / C = Corrected

Rev 21 05/23/2016

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1823213-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> TB-3-072518 <b>Sampled By:</b> Blaine Tech - Tyler Keene of BTST	<b>Receive Date:</b> 07/25/2018 18:00 <b>Sampling Date:</b> 07/25/2018 07:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Blank Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): TB-3-072518 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1823213-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-3-4 <b>Sampled By:</b> Blaine Tech - Tyler Keene of BTST	<b>Receive Date:</b> 07/25/2018 18:00 <b>Sampling Date:</b> 07/25/2018 07:35 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-3-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1823213-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-3-3 <b>Sampled By:</b> Blaine Tech - Tyler Keene of BTST	<b>Receive Date:</b> 07/25/2018 18:00 <b>Sampling Date:</b> 07/25/2018 08:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-3-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1823213-04</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-3-2 <b>Sampled By:</b> Blaine Tech - Tyler Keene of BTST	<b>Receive Date:</b> 07/25/2018 18:00 <b>Sampling Date:</b> 07/25/2018 08:30 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-3-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1823213-05</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-18-5 <b>Sampled By:</b> Blaine Tech - Tyler Keene of BTST	<b>Receive Date:</b> 07/25/2018 18:00 <b>Sampling Date:</b> 07/25/2018 09:20 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-18-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1823213-06</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-18-4 <b>Sampled By:</b> Blaine Tech - Tyler Keene of BTST	<b>Receive Date:</b> 07/25/2018 18:00 <b>Sampling Date:</b> 07/25/2018 09:50 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-18-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1823213-07</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-18-3 <b>Sampled By:</b> Blaine Tech - Tyler Keene of BTST	<b>Receive Date:</b> 07/25/2018 18:00 <b>Sampling Date:</b> 07/25/2018 10:15 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-18-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1823213-08</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-18-2 <b>Sampled By:</b> Blaine Tech - Tyler Keene of BTST	<b>Receive Date:</b> 07/25/2018 18:00 <b>Sampling Date:</b> 07/25/2018 10:45 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-18-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1823213-09</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-26-2 <b>Sampled By:</b> Blaine Tech - Tyler Keene of BTST	<b>Receive Date:</b> 07/25/2018 18:00 <b>Sampling Date:</b> 07/25/2018 12:20 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-26-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1823213-10</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-26-1 <b>Sampled By:</b> Blaine Tech - Tyler Keene of BTST	<b>Receive Date:</b> 07/25/2018 18:00 <b>Sampling Date:</b> 07/25/2018 12:45 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-26-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1823213-11</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> EB-3-072518 <b>Sampled By:</b> Blaine Tech - Tyler Keene of BTST	<b>Receive Date:</b> 07/25/2018 18:00 <b>Sampling Date:</b> 07/25/2018 13:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): EB-3-072518 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-01	<b>Client Sample Name:</b> JPL-GW Monitoring, TB-3-072518, 7/25/2018 7:00:00AM, Blaine Tech - Tyler Keene
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-01	<b>Client Sample Name:</b> JPL-GW Monitoring, TB-3-072518, 7/25/2018 7:00:00AM, Blaine Tech - Tyler Keene
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-01	<b>Client Sample Name:</b> JPL-GW Monitoring, TB-3-072518, 7/25/2018 7:00:00AM, Blaine Tech - Tyler Keene
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	95.9	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/31/18 20:11	MGC	MS-V5	1	B020161

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Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823213-01	<b>Client Sample Name:</b> JPL-GW Monitoring, TB-3-072518, 7/25/2018 7:00:00AM, Blaine Tech - Tyler Keene
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/31/18 20:11	MGC	MS-V5	1	B020161

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-02	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-3-4, 7/25/2018 7:35:00AM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
<b>1,1-Dichloroethane</b>	<b>0.17</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.15</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-02	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-3-4, 7/25/2018 7:35:00AM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-02	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-3-4, 7/25/2018 7:35:00AM, Blaine Tech - Tyler Keene
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.4	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/31/18 20:34	MGC	MS-V5	1	B020161

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Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823213-02	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-3-4, 7/25/2018 7:35:00AM, Blaine Tech - Tyler Keene
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/31/18 20:34	MGC	MS-V5	1	B020161

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823213-02	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-3-4, 7/25/2018 7:35:00AM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	0.81	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 11:00	08/15/18 17:52	MIG	IC6	1	B021637

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**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823213-02	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-3-4, 7/25/2018 7:35:00AM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>12</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	1.2		2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/25/18 20:42	07/25/18 20:42		SAV	KONE-1	1	B020043
2	EPA-200.8	08/01/18 11:30	08/02/18 19:50		MH1	PE-EL3	1	B020422

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Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-03	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-3-3, 7/25/2018 8:00:00AM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Powell, OH 43065

Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-03	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-3-3, 7/25/2018 8:00:00AM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Powell, OH 43065

Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-03	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-3-3, 7/25/2018 8:00:00AM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	96.4	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/31/18 20:57	MGC	MS-V5	1	B020161

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823213-03	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-3-3, 7/25/2018 8:00:00AM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/31/18 20:57	MGC	MS-V5	1	B020161

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Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823213-03	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-3-3, 7/25/2018 8:00:00AM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	1.2	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 11:00	08/15/18 18:53	MIG	IC6	1	B021637

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**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823213-03	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-3-3, 7/25/2018 8:00:00AM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0011	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
<b>Total Recoverable Chromium</b>	<b>3.0</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>1.2</b>		<b>2</b>

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	07/25/18 20:42	07/25/18 20:42	SAV	KONE-1	1	B020043
2	EPA-200.8	08/01/18 11:30	08/02/18 20:11	MH1	PE-EL3	1	B020422

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Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-04	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-3-2, 7/25/2018 8:30:00AM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-04	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-3-2, 7/25/2018 8:30:00AM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-04	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-3-2, 7/25/2018 8:30:00AM, Blaine Tech - Tyler Keene
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	96.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	99.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/31/18 21:20	MGC	MS-V5	1	B020161

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**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823213-04	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-3-2, 7/25/2018 8:30:00AM, Blaine Tech - Tyler Keene
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/31/18 21:20	MGC	MS-V5	1	B020161

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**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823213-04	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-3-2, 7/25/2018 8:30:00AM, Blaine Tech - Tyler Keene
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	1.9	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 11:00	08/15/18 19:09	MIG	IC6	1	B021637

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**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823213-04	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-3-2, 7/25/2018 8:30:00AM, Blaine Tech - Tyler Keene
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.1</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>1.2</b>	<b>J</b>	<b>2</b>

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/25/18 20:42	07/25/18 20:42		SAV	KONE-1	1	B020043
2	EPA-200.8	08/01/18 11:30	08/02/18 20:25		MH1	PE-EL3	1	B020422

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Powell, OH 43065

Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-05	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-18-5, 7/25/2018 9:20:00AM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.
3761 Attucks Drive
Powell, OH 43065

Reported: 08/21/2018 8:49
Project: JPL- GW Monitoring Wells
Project Number: 3Q18
Project Manager: David Conner

Volatile Organic Analysis (EPA Method 524.2)

Table with 2 columns: BCL Sample ID (1823213-05) and Client Sample Name (JPL-GW Monitoring, MW-18-5, 7/25/2018 9:20:00AM, Blaine Tech - Tyler Keene)

Main data table with columns: Constituent, Result, Units, PQL, MDL, Method, MB Bias, Lab Quals, Run #. Lists various chemical compounds and their analysis results.

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Powell, OH 43065

Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-05	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-18-5, 7/25/2018 9:20:00AM, Blaine Tech - Tyler Keene
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	97.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/31/18 21:43	MGC	MS-V5	1	B020161

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Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823213-05	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-18-5, 7/25/2018 9:20:00AM, Blaine Tech - Tyler Keene
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/31/18 21:43	MGC	MS-V5	1	B020161

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Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823213-05	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-18-5, 7/25/2018 9:20:00AM, Blaine Tech - Tyler Keene
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 11:00	08/15/18 19:24	MIG	IC6	1	B021637

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Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-06	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-18-4, 7/25/2018 9:50:00AM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
<b>Carbon tetrachloride</b>	<b>1.4</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.17</b>	<b>EPA-524.2</b>	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.61</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-06	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-18-4, 7/25/2018 9:50:00AM, Blaine Tech - Tyler Keene
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.46</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.67</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-06	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-18-4, 7/25/2018 9:50:00AM, Blaine Tech - Tyler Keene
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/31/18 22:06	MGC	MS-V5	1	B020161

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823213-06	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-18-4, 7/25/2018 9:50:00AM, Blaine Tech - Tyler Keene
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/31/18 22:06	MGC	MS-V5	1	B020161

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**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823213-06	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-18-4, 7/25/2018 9:50:00AM, Blaine Tech - Tyler Keene
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	14	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 11:00	08/15/18 19:40	MIG	IC6	1	B021637

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**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823213-06	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-18-4, 7/25/2018 9:50:00AM, Blaine Tech - Tyler Keene
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0020	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>3.4</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>1.2</b>		<b>2</b>

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/25/18 20:42	07/25/18 20:42		SAV	KONE-1	1	B020043
2	EPA-200.8	08/01/18 11:30	08/02/18 20:28		MH1	PE-EL3	1	B020422

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Powell, OH 43065

Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-07	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-18-3, 7/25/2018 10:15:00AM, Blaine Tech - Tyler Keene
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
<b>Carbon tetrachloride</b>	<b>0.32</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.17</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-07	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-18-3, 7/25/2018 10:15:00AM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-07	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-18-3, 7/25/2018 10:15:00AM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	105	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/31/18 22:29	MGC	MS-V5	1	B020161

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Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823213-07	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-18-3, 7/25/2018 10:15:00AM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 05:00	07/31/18 22:29	MGC	MS-V5	1	B020161

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Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823213-07	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-18-3, 7/25/2018 10:15:00AM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	2.3	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 11:00	08/16/18 05:01	MIG	IC6	1	B021637

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Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823213-07	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-18-3, 7/25/2018 10:15:00AM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0017	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
<b>Total Recoverable Chromium</b>	<b>2.9</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>1.2</b>	<b>J</b>	<b>2</b>

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/25/18 20:42	07/25/18 20:42		SAV	KONE-1	1	B020043
2	EPA-200.8	08/01/18 11:30	08/02/18 20:32		MH1	PE-EL3	1	B020422

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Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-08	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-18-2, 7/25/2018 10:45:00AM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-08	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-18-2, 7/25/2018 10:45:00AM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Powell, OH 43065

Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-08	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-18-2, 7/25/2018 10:45:00AM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	94.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	98.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 22:52	MGC	MS-V5	1	B020162

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823213-08	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-18-2, 7/25/2018 10:45:00AM, Blaine Tech - Tyler Keene
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 22:52	MGC	MS-V5	1	B020162

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823213-08	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-18-2, 7/25/2018 10:45:00AM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 11:00	08/15/18 21:15	SAV	IC6	1	B021637

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Tidewater Inc.  
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Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823213-08	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-18-2, 7/25/2018 10:45:00AM, Blaine Tech - Tyler Keene
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.2</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>1.2</b>	<b>J</b>	<b>2</b>

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/25/18 20:42	07/25/18 20:46		SAV	KONE-1	1	B020043
2	EPA-200.8	08/01/18 11:30	08/02/18 20:35		MH1	PE-EL3	1	B020422

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-09	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-26-2, 7/25/2018 12:20:00PM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
<b>Bromodichloromethane</b>	<b>0.22</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.20</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>1.8</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
<b>cis-1,2-Dichloroethene</b>	<b>0.32</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.27</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-09	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-26-2, 7/25/2018 12:20:00PM, Blaine Tech - Tyler Keene
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>1.8</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.24</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-09	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-26-2, 7/25/2018 12:20:00PM, Blaine Tech - Tyler Keene
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 23:15	MGC	MS-V5	1	B020162

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823213-09	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-26-2, 7/25/2018 12:20:00PM, Blaine Tech - Tyler Keene
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 23:15	MGC	MS-V5	1	B020162

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823213-09	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-26-2, 7/25/2018 12:20:00PM, Blaine Tech - Tyler Keene
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	3.3	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 11:00	08/15/18 21:31	SAV	IC6	1	B021637

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823213-09	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-26-2, 7/25/2018 12:20:00PM, Blaine Tech - Tyler Keene
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0015	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	3.0	ug/L	3.0	0.50	EPA-200.8	1.2		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	07/25/18 20:42	07/25/18 20:46	SAV	KONE-1	1	B020043
2	EPA-200.8	08/01/18 11:30	08/02/18 20:39	MH1	PE-EL3	1	B020422

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-10	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-26-1, 7/25/2018 12:45:00PM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.23</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-10	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-26-1, 7/25/2018 12:45:00PM, Blaine Tech - Tyler Keene
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.40</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-10	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-26-1, 7/25/2018 12:45:00PM, Blaine Tech - Tyler Keene
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	105	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	84.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 23:38	MGC	MS-V5	1	B020162

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Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823213-10	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-26-1, 7/25/2018 12:45:00PM, Blaine Tech - Tyler Keene
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	07/31/18 23:38	MGC	MS-V5	1	B020162

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**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823213-10	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-26-1, 7/25/2018 12:45:00PM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	1.7	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 11:00	08/15/18 21:46	SAV	IC6	1	B021637

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Tidewater Inc.  
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Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823213-10	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-26-1, 7/25/2018 12:45:00PM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.3</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	1.2	J	2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/25/18 20:42	07/25/18 20:46		SAV	KONE-1	1	B020043
2	EPA-200.8	08/01/18 11:30	08/02/18 20:42		MH1	PE-EL3	1	B020422

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Powell, OH 43065

Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-11	<b>Client Sample Name:</b> JPL-GW Monitoring, EB-3-072518, 7/25/2018 1:00:00PM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-11	<b>Client Sample Name:</b> JPL-GW Monitoring, EB-3-072518, 7/25/2018 1:00:00PM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823213-11	<b>Client Sample Name:</b> JPL-GW Monitoring, EB-3-072518, 7/25/2018 1:00:00PM, Blaine Tech - Tyler Keene
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	08/01/18 00:01	MGC	MS-V5	1	B020162

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Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823213-11	<b>Client Sample Name:</b> JPL-GW Monitoring, EB-3-072518, 7/25/2018 1:00:00PM, Blaine Tech - Tyler Keene
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 11:28	08/01/18 00:01	MGC	MS-V5	1	B020162

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**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823213-11	<b>Client Sample Name:</b> JPL-GW Monitoring, EB-3-072518, 7/25/2018 1:00:00PM, Blaine Tech - Tyler Keene
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 11:00	08/15/18 22:01	SAV	IC6	1	B021637

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823213-11	<b>Client Sample Name:</b> JPL-GW Monitoring, EB-3-072518, 7/25/2018 1:00:00PM, Blaine Tech - Tyler Keene
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.6</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	1.2	J	2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/25/18 20:42	07/25/18 20:46		SAV	KONE-1	1	B020043
2	EPA-200.8	08/01/18 11:30	08/02/18 20:45		MH1	PE-EL3	1	B020422

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Tidewater Inc.  
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Powell, OH 43065

**Reported:** 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020161</b>						
Benzene	B020161-BLK1	ND	ug/L	0.50	0.11	
Bromobenzene	B020161-BLK1	ND	ug/L	0.50	0.15	
Bromochloromethane	B020161-BLK1	ND	ug/L	0.50	0.27	
Bromodichloromethane	B020161-BLK1	ND	ug/L	0.50	0.20	
Bromoform	B020161-BLK1	ND	ug/L	0.50	0.46	
Bromomethane	B020161-BLK1	ND	ug/L	0.50	0.20	
n-Butylbenzene	B020161-BLK1	ND	ug/L	0.50	0.15	
sec-Butylbenzene	B020161-BLK1	ND	ug/L	0.50	0.13	
tert-Butylbenzene	B020161-BLK1	ND	ug/L	0.50	0.18	
Carbon tetrachloride	B020161-BLK1	ND	ug/L	0.50	0.17	
Chlorobenzene	B020161-BLK1	ND	ug/L	0.50	0.14	
Chloroethane	B020161-BLK1	ND	ug/L	0.50	0.17	
Chloroform	B020161-BLK1	ND	ug/L	0.50	0.14	
Chloromethane	B020161-BLK1	ND	ug/L	0.50	0.11	
2-Chlorotoluene	B020161-BLK1	ND	ug/L	0.50	0.14	
4-Chlorotoluene	B020161-BLK1	ND	ug/L	0.50	0.093	
Dibromochloromethane	B020161-BLK1	ND	ug/L	0.50	0.22	
1,2-Dibromo-3-chloropropane	B020161-BLK1	ND	ug/L	1.0	0.89	
1,2-Dibromoethane	B020161-BLK1	ND	ug/L	0.50	0.22	
Dibromomethane	B020161-BLK1	ND	ug/L	0.50	0.23	
1,2-Dichlorobenzene	B020161-BLK1	ND	ug/L	0.50	0.21	
1,3-Dichlorobenzene	B020161-BLK1	ND	ug/L	0.50	0.16	
1,4-Dichlorobenzene	B020161-BLK1	ND	ug/L	0.50	0.15	
Dichlorodifluoromethane	B020161-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethane	B020161-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloroethane	B020161-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	B020161-BLK1	ND	ug/L	0.50	0.27	
cis-1,2-Dichloroethene	B020161-BLK1	ND	ug/L	0.50	0.27	
trans-1,2-Dichloroethene	B020161-BLK1	ND	ug/L	0.50	0.17	
1,2-Dichloropropane	B020161-BLK1	ND	ug/L	0.50	0.15	
1,3-Dichloropropane	B020161-BLK1	ND	ug/L	0.50	0.13	
2,2-Dichloropropane	B020161-BLK1	ND	ug/L	0.50	0.18	
1,1-Dichloropropene	B020161-BLK1	ND	ug/L	0.50	0.19	
cis-1,3-Dichloropropene	B020161-BLK1	ND	ug/L	0.50	0.14	

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Powell, OH 43065

Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020161</b>						
trans-1,3-Dichloropropene	B020161-BLK1	ND	ug/L	0.50	0.13	
Ethylbenzene	B020161-BLK1	ND	ug/L	0.50	0.15	
Hexachlorobutadiene	B020161-BLK1	ND	ug/L	0.50	0.20	
Isopropylbenzene	B020161-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	B020161-BLK1	ND	ug/L	0.50	0.14	
Methylene chloride	B020161-BLK1	ND	ug/L	0.50	0.21	
Methyl t-butyl ether	B020161-BLK1	ND	ug/L	0.50	0.14	
Naphthalene	B020161-BLK1	ND	ug/L	0.50	0.16	
n-Propylbenzene	B020161-BLK1	ND	ug/L	0.50	0.12	
Styrene	B020161-BLK1	ND	ug/L	0.50	0.12	
1,1,1,2-Tetrachloroethane	B020161-BLK1	ND	ug/L	0.50	0.21	
1,1,1,2,2-Tetrachloroethane	B020161-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	B020161-BLK1	ND	ug/L	0.50	0.23	
Toluene	B020161-BLK1	ND	ug/L	0.50	0.17	
1,2,3-Trichlorobenzene	B020161-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trichlorobenzene	B020161-BLK1	ND	ug/L	0.50	0.15	
1,1,1-Trichloroethane	B020161-BLK1	ND	ug/L	0.50	0.21	
1,1,2-Trichloroethane	B020161-BLK1	ND	ug/L	0.50	0.21	
Trichloroethene	B020161-BLK1	ND	ug/L	0.50	0.19	
Trichlorofluoromethane	B020161-BLK1	ND	ug/L	0.50	0.14	
1,2,3-Trichloropropane	B020161-BLK1	ND	ug/L	1.0	0.78	
1,1,2-Trichloro-1,2,2-trifluoroethane	B020161-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trimethylbenzene	B020161-BLK1	ND	ug/L	0.50	0.17	
1,3,5-Trimethylbenzene	B020161-BLK1	ND	ug/L	0.50	0.14	
Vinyl chloride	B020161-BLK1	ND	ug/L	0.50	0.18	
Acetone	B020161-BLK1	ND	ug/L	10	6.6	
Acrylonitrile	B020161-BLK1	ND	ug/L	5.0	1.5	
Allyl chloride	B020161-BLK1	ND	ug/L	5.0	0.47	
t-Amyl Methyl ether	B020161-BLK1	ND	ug/L	0.50	0.19	
t-Butyl alcohol	B020161-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	B020161-BLK1	ND	ug/L	1.0	0.48	
trans-1,4-Dichloro-2-butene	B020161-BLK1	ND	ug/L	5.0	1.8	
Diethyl ether	B020161-BLK1	ND	ug/L	2.0	0.33	
Ethyl methacrylate	B020161-BLK1	ND	ug/L	4.0	1.3	

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Powell, OH 43065

Reported: 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
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**QC Batch ID: B020161**

Ethyl t-butyl ether	B020161-BLK1	ND	ug/L	0.50	0.32	
Hexachloroethane	B020161-BLK1	ND	ug/L	0.50	0.11	
2-Hexanone	B020161-BLK1	ND	ug/L	10	5.0	
Methacrylonitrile	B020161-BLK1	ND	ug/L	10	2.3	
Methyl ethyl ketone	B020161-BLK1	ND	ug/L	10	3.3	
Methyl iodide	B020161-BLK1	ND	ug/L	2.0	1.1	
Methyl isobutyl ketone	B020161-BLK1	ND	ug/L	10	2.4	
Methyl methacrylate	B020161-BLK1	ND	ug/L	5.0	1.2	
Pentachloroethane	B020161-BLK1	ND	ug/L	2.0	0.63	
Propionitrile	B020161-BLK1	ND	ug/L	20	6.2	
Tetrahydrofuran	B020161-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	B020161-BLK1	ND	ug/L	0.50	0.34	
o-Xylene	B020161-BLK1	ND	ug/L	0.50	0.13	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>B020161-BLK1</b>	<b>98.7</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>B020161-BLK1</b>	<b>101</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>B020161-BLK1</b>	<b>98.3</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		

**QC Batch ID: B020162**

Benzene	B020162-BLK1	ND	ug/L	0.50	0.11	
Bromobenzene	B020162-BLK1	ND	ug/L	0.50	0.15	
Bromochloromethane	B020162-BLK1	ND	ug/L	0.50	0.27	
Bromodichloromethane	B020162-BLK1	ND	ug/L	0.50	0.20	
Bromoform	B020162-BLK1	ND	ug/L	0.50	0.46	
Bromomethane	B020162-BLK1	ND	ug/L	0.50	0.20	
n-Butylbenzene	B020162-BLK1	ND	ug/L	0.50	0.15	
sec-Butylbenzene	B020162-BLK1	ND	ug/L	0.50	0.13	
tert-Butylbenzene	B020162-BLK1	ND	ug/L	0.50	0.18	
Carbon tetrachloride	B020162-BLK1	ND	ug/L	0.50	0.17	
Chlorobenzene	B020162-BLK1	ND	ug/L	0.50	0.14	
Chloroethane	B020162-BLK1	ND	ug/L	0.50	0.17	
Chloroform	B020162-BLK1	ND	ug/L	0.50	0.14	
Chloromethane	B020162-BLK1	ND	ug/L	0.50	0.11	
2-Chlorotoluene	B020162-BLK1	ND	ug/L	0.50	0.14	
4-Chlorotoluene	B020162-BLK1	ND	ug/L	0.50	0.093	

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Powell, OH 43065

**Reported:** 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020162</b>						
Dibromochloromethane	B020162-BLK1	ND	ug/L	0.50	0.22	
1,2-Dibromo-3-chloropropane	B020162-BLK1	ND	ug/L	1.0	0.89	
1,2-Dibromoethane	B020162-BLK1	ND	ug/L	0.50	0.22	
Dibromomethane	B020162-BLK1	ND	ug/L	0.50	0.23	
1,2-Dichlorobenzene	B020162-BLK1	ND	ug/L	0.50	0.21	
1,3-Dichlorobenzene	B020162-BLK1	ND	ug/L	0.50	0.16	
1,4-Dichlorobenzene	B020162-BLK1	ND	ug/L	0.50	0.15	
Dichlorodifluoromethane	B020162-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethane	B020162-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloroethane	B020162-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	B020162-BLK1	ND	ug/L	0.50	0.27	
cis-1,2-Dichloroethene	B020162-BLK1	ND	ug/L	0.50	0.27	
trans-1,2-Dichloroethene	B020162-BLK1	ND	ug/L	0.50	0.17	
1,2-Dichloropropane	B020162-BLK1	ND	ug/L	0.50	0.15	
1,3-Dichloropropane	B020162-BLK1	ND	ug/L	0.50	0.13	
2,2-Dichloropropane	B020162-BLK1	ND	ug/L	0.50	0.18	
1,1-Dichloropropene	B020162-BLK1	ND	ug/L	0.50	0.19	
cis-1,3-Dichloropropene	B020162-BLK1	ND	ug/L	0.50	0.14	
trans-1,3-Dichloropropene	B020162-BLK1	ND	ug/L	0.50	0.13	
Ethylbenzene	B020162-BLK1	ND	ug/L	0.50	0.15	
Hexachlorobutadiene	B020162-BLK1	ND	ug/L	0.50	0.20	
Isopropylbenzene	B020162-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	B020162-BLK1	ND	ug/L	0.50	0.14	
Methylene chloride	B020162-BLK1	ND	ug/L	0.50	0.21	
Methyl t-butyl ether	B020162-BLK1	ND	ug/L	0.50	0.14	
Naphthalene	B020162-BLK1	ND	ug/L	0.50	0.16	
n-Propylbenzene	B020162-BLK1	ND	ug/L	0.50	0.12	
Styrene	B020162-BLK1	ND	ug/L	0.50	0.12	
1,1,1,2-Tetrachloroethane	B020162-BLK1	ND	ug/L	0.50	0.21	
1,1,2,2-Tetrachloroethane	B020162-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	B020162-BLK1	ND	ug/L	0.50	0.23	
Toluene	B020162-BLK1	ND	ug/L	0.50	0.17	
1,2,3-Trichlorobenzene	B020162-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trichlorobenzene	B020162-BLK1	ND	ug/L	0.50	0.15	

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Tidewater Inc.
3761 Attucks Drive
Powell, OH 43065

Reported: 08/21/2018 8:49
Project: JPL- GW Monitoring Wells
Project Number: 3Q18
Project Manager: David Conner

Volatile Organic Analysis (EPA Method 524.2)

Quality Control Report - Method Blank Analysis

Table with 7 columns: Constituent, QC Sample ID, MB Result, Units, PQL, MDL, Lab Quals. Includes a QC Batch ID: B020162 and a list of 30 chemical constituents with their respective results and limits.

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Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B020161</b>										
Benzene	B020161-BS1	LCS	25.150	25.000	ug/L	101		70 - 130		
Bromodichloromethane	B020161-BS1	LCS	26.030	25.000	ug/L	104		70 - 130		
Chlorobenzene	B020161-BS1	LCS	23.820	25.000	ug/L	95.3		70 - 130		
Chloroethane	B020161-BS1	LCS	26.820	25.000	ug/L	107		70 - 130		
1,4-Dichlorobenzene	B020161-BS1	LCS	23.130	25.000	ug/L	92.5		70 - 130		
1,1-Dichloroethane	B020161-BS1	LCS	26.060	25.000	ug/L	104		70 - 130		
1,1-Dichloroethene	B020161-BS1	LCS	26.470	25.000	ug/L	106		70 - 130		
Toluene	B020161-BS1	LCS	24.690	25.000	ug/L	98.8		70 - 130		
Trichloroethene	B020161-BS1	LCS	24.790	25.000	ug/L	99.2		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B020161-BS1	LCS	10.420	10.000	ug/L	104		75 - 125		
Toluene-d8 (Surrogate)	B020161-BS1	LCS	9.8200	10.000	ug/L	98.2		80 - 120		
4-Bromofluorobenzene (Surrogate)	B020161-BS1	LCS	9.4500	10.000	ug/L	94.5		80 - 120		

<b>QC Batch ID: B020162</b>										
Benzene	B020162-BS1	LCS	24.790	25.000	ug/L	99.2		70 - 130		
Bromodichloromethane	B020162-BS1	LCS	25.960	25.000	ug/L	104		70 - 130		
Chlorobenzene	B020162-BS1	LCS	24.530	25.000	ug/L	98.1		70 - 130		
Chloroethane	B020162-BS1	LCS	24.850	25.000	ug/L	99.4		70 - 130		
1,4-Dichlorobenzene	B020162-BS1	LCS	24.340	25.000	ug/L	97.4		70 - 130		
1,1-Dichloroethane	B020162-BS1	LCS	24.920	25.000	ug/L	99.7		70 - 130		
1,1-Dichloroethene	B020162-BS1	LCS	25.700	25.000	ug/L	103		70 - 130		
Toluene	B020162-BS1	LCS	23.930	25.000	ug/L	95.7		70 - 130		
Trichloroethene	B020162-BS1	LCS	23.690	25.000	ug/L	94.8		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B020162-BS1	LCS	10.570	10.000	ug/L	106		75 - 125		
Toluene-d8 (Surrogate)	B020162-BS1	LCS	9.9700	10.000	ug/L	99.7		80 - 120		
4-Bromofluorobenzene (Surrogate)	B020162-BS1	LCS	10.180	10.000	ug/L	102		80 - 120		

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Reported: 08/21/2018 8:49
Project: JPL- GW Monitoring Wells
Project Number: 3Q18
Project Manager: David Conner

Volatile Organic Analysis (EPA Method 524.2)

Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Source Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Percent Recovery, Lab Quals. Includes two sections for QC Batch IDs B020161 and B020162.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery		Lab
								RPD	Percent Recovery	
<b>QC Batch ID: B020162</b>										
Used client sample: Y - Description: MW-14-3, 07/24/2018 08:30										
1,1-Dichloroethene	MS	1823058-04	ND	26.710	25.000	ug/L		107		70 - 130
	MSD	1823058-04	ND	26.210	25.000	ug/L	1.9	105	20	70 - 130
Toluene	MS	1823058-04	ND	24.440	25.000	ug/L		97.8		70 - 130
	MSD	1823058-04	ND	24.520	25.000	ug/L	0.3	98.1	20	70 - 130
Trichloroethene	MS	1823058-04	1.0000	25.250	25.000	ug/L		97.0		70 - 130
	MSD	1823058-04	1.0000	25.240	25.000	ug/L	0.0	97.0	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1823058-04	ND	10.280	10.000	ug/L		103		75 - 125
	MSD	1823058-04	ND	10.160	10.000	ug/L	1.2	102		75 - 125
Toluene-d8 (Surrogate)	MS	1823058-04	ND	9.7600	10.000	ug/L		97.6		80 - 120
	MSD	1823058-04	ND	9.7400	10.000	ug/L	0.2	97.4		80 - 120
4-Bromofluorobenzene (Surrogate)	MS	1823058-04	ND	10.050	10.000	ug/L		100		80 - 120
	MSD	1823058-04	ND	9.6700	10.000	ug/L	3.9	96.7		80 - 120

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020161</b>						
Chloroacetonitrile	B020161-BLK1	0	ug/L			
1-Chlorobutane	B020161-BLK1	0	ug/L			
1,1-Dichloropropanone	B020161-BLK1	0	ug/L			
Methyl acrylate	B020161-BLK1	0	ug/L			
Nitrobenzene	B020161-BLK1	0	ug/L			
2-Nitropropane	B020161-BLK1	0	ug/L			
<b>QC Batch ID: B020162</b>						
Chloroacetonitrile	B020162-BLK1	0	ug/L			
1-Chlorobutane	B020162-BLK1	0	ug/L			
1,1-Dichloropropanone	B020162-BLK1	0	ug/L			
Methyl acrylate	B020162-BLK1	0	ug/L			
Nitrobenzene	B020162-BLK1	0	ug/L			
2-Nitropropane	B020162-BLK1	0	ug/L			

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B021637</b>						
Perchlorate	B021637-BLK1	ND	ug/L	4.0	0.58	

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B021637</b>										
Perchlorate	B021637-BS1	LCS	10.913	10.000	ug/L	109		85	115	

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B021637</b>		Used client sample: Y - Description: MW-3-4, 07/25/2018 07:35								
Perchlorate	DUP	1823213-02	0.81460	0.85050		ug/L	4.3		15	J
	MS	1823213-02	0.81460	10.957	10.101	ug/L		100	80 - 120	
	MSD	1823213-02	0.81460	10.512	10.101	ug/L	4.1	96.0	15 80 - 120	

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Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020043</b>						
Hexavalent Chromium	B020043-BLK1	ND	mg/L	0.0020	0.00070	
<b>QC Batch ID: B020422</b>						
Total Recoverable Chromium	B020422-BLK1	1.2290	ug/L	3.0	0.50	J

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Metals Analysis

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B020043</b>										
Hexavalent Chromium	B020043-BS1	LCS	0.051912	0.050000	mg/L	104		85 - 115		
<b>QC Batch ID: B020422</b>										
Total Recoverable Chromium	B020422-BS1	LCS	41.867	40.000	ug/L	105		85 - 115		

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B020043</b>		Used client sample: Y - Description: MW-3-3, 07/25/2018 08:00								
Hexavalent Chromium	DUP	1823213-03	0.0011380	0.0010340		mg/L	9.6		10	J
	MS	1823213-03	0.0011380	0.055422	0.052632	mg/L		103	85 - 115	
	MSD	1823213-03	0.0011380	0.055557	0.052632	mg/L	0.2	103	10	85 - 115
<b>QC Batch ID: B020422</b>		Used client sample: Y - Description: MW-3-4, 07/25/2018 07:35								
Total Recoverable Chromium	DUP	1823213-02	12.132	11.503		ug/L	5.3		20	
	MS	1823213-02	12.132	51.141	40.000	ug/L		97.5	70 - 130	
	MSD	1823213-02	12.132	49.210	40.000	ug/L	3.8	92.7	20	70 - 130

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:49  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit



Date of Report: 08/21/2018

David Conner

Tidewater Inc.

3761 Attucks Drive

Powell, OH 43065

Client Project: 3Q18

BCL Project: JPL- GW Monitoring Wells

BCL Work Order: 1823367

Invoice ID:

Enclosed are the results of analyses for samples received by the laboratory on 7/26/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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# Table of Contents

## Sample Information

Chain of Custody and Cooler Receipt form.....	4
Laboratory / Client Sample Cross Reference.....	6

## Sample Results

<b>1823367-01 - TB-4-072618</b>	
Volatile Organic Analysis (EPA Method 524.2).....	9
Volatile Organic Analysis (EPA Method 524.2) TICs.....	12
<b>1823367-02 - MW-22-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	13
Volatile Organic Analysis (EPA Method 524.2) TICs.....	16
Water Analysis (General Chemistry).....	17
Metals Analysis.....	18
<b>1823367-03 - MW-22-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	19
Volatile Organic Analysis (EPA Method 524.2) TICs.....	22
Water Analysis (General Chemistry).....	23
Metals Analysis.....	24
<b>1823367-04 - MW-22-1</b>	
Volatile Organic Analysis (EPA Method 524.2).....	25
Volatile Organic Analysis (EPA Method 524.2) TICs.....	28
Water Analysis (General Chemistry).....	29
Metals Analysis.....	30
<b>1823367-05 - MW-21-5</b>	
Volatile Organic Analysis (EPA Method 524.2).....	31
Volatile Organic Analysis (EPA Method 524.2) TICs.....	34
Water Analysis (General Chemistry).....	35
Metals Analysis.....	36
<b>1823367-06 - MW-21-4</b>	
Volatile Organic Analysis (EPA Method 524.2).....	37
Volatile Organic Analysis (EPA Method 524.2) TICs.....	40
Water Analysis (General Chemistry).....	41
Metals Analysis.....	42
<b>1823367-07 - MW-21-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	43
Volatile Organic Analysis (EPA Method 524.2) TICs.....	46
Water Analysis (General Chemistry).....	47
Metals Analysis.....	48
<b>1823367-08 - MW-21-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	49
Volatile Organic Analysis (EPA Method 524.2) TICs.....	52
Water Analysis (General Chemistry).....	53
Metals Analysis.....	54
<b>1823367-09 - EB-4-072618</b>	
Volatile Organic Analysis (EPA Method 524.2).....	55
Volatile Organic Analysis (EPA Method 524.2) TICs.....	58
Water Analysis (General Chemistry).....	59
Metals Analysis.....	60

## Quality Control Reports

<b>Volatile Organic Analysis (EPA Method 524.2)</b>	
Method Blank Analysis.....	61
Laboratory Control Sample.....	64
Precision and Accuracy.....	65
<b>Volatile Organic Analysis (EPA Method 524.2) TICs</b>	
Method Blank Analysis.....	66

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## Table of Contents

### Water Analysis (General Chemistry)

Method Blank Analysis.....	67
Laboratory Control Sample.....	68
Precision and Accuracy.....	69

### Metals Analysis

Method Blank Analysis.....	70
Laboratory Control Sample.....	71
Precision and Accuracy.....	72

### Notes

Notes and Definitions.....	73
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Chain of Custody Form



Page 1 of 1

**Required Fields**

Report To: Tidewater, Inc.  
 Client: Tidewater, Inc.  
 Attn: David Connor  
 Street Address: 3761 Allucks Drive  
 City: Powell State: OH Zip: 43065  
 Phone: 614 288-5715 Fax: 614 792-2897  
 Email Address: david.connor@tideh2o.net  
 Submission #: 18-23367

Project Description: JPL-GW Monitoring  
 Project Code: 3Q18  
 Sampler(s): Blaine Tech  
 Thylis Hoang

**Billing**  
 Client: Tidewater, Inc.  
 Attn: David Connor  
 Address: 3761 Allucks Drive  
 City: Powell State: OH Zip: 43065  
 Are there any tests with holding times?  
 Yes  No  
 less than or equal to 48 hours?  
 Yes  No  
 \*Standard Turnaround = 10

**Analysis Requested**

Sample #	Sample Description	Date	Time	Matrix	VOCs EPA 524.2	Total Cr (200.8)	Perchlorate (EPA 314.0)	Chloride, Nitrate, Sulfate (300)	Orthophosphate (385.1)	Nitrite (353.2)	Hexavalent Cr (196)
-1	TB-4-072618	07/26/18	0700	GW	X						
-2	MW-22-3	0800	0800	GW	X	X					
-3	MW-22-2	0830	0830	GW	X	X					
-4	MW-22-1	0900	0900	GW	X	X					
-5	MW-21-5	1045	1045	GW	X	X					
-6	MW-21-4	1020	1020	GW	X	X					
-7	MW-21-3	1115	1115	GW	X	X					
-8	MW-21-2	1200	1200	GW	X	X					
-9	MW-EB4-072618	1220	1220	GW	X	X					

**Matrix Types:** S = Soil SL = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other

**Turnaround # of working days:**  24 Hr Rush  48 Hr Rush  3-5 Day Rush  Normal (10 - Days)

**Lab TAT Approval:** \_\_\_\_\_ \*Additional Charges May Apply

**Comments:**  
 PLEASE NOTATE WHICH SAMPLES TO USE FOR QC (MS/MSD)  
 90% Level III and 10% Level IV data validation required. Level IV Notated on C of C  
 NOTE: ALL ANALYSIS REQUIRED TO HAVE CALIBRATION SUMMARIES (Inform OC)

**Global ID:** \_\_\_\_\_

**Cost Center:**  
 1. Relinquished By: \_\_\_\_\_ Date: 07/26/18 Time: 1330  
 2. Acquired By: \_\_\_\_\_ Date: 08/04/18 Time: 3:30  
 3. Received By: \_\_\_\_\_ Date: 07/26/18 Time: 1530

**Global ID:** \_\_\_\_\_

**Cost Center:**  
 1. Relinquished By: \_\_\_\_\_ Date: 07/26/18 Time: 1330  
 2. Acquired By: \_\_\_\_\_ Date: 08/04/18 Time: 3:30  
 3. Received By: \_\_\_\_\_ Date: 07/26/18 Time: 1530

BC Laboratories, Inc. 4100 Atlas Court - Bakersfield CA 93308 (661) 327-4911 Fax: (661) 327-1918 www.bclabs.com

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1823367

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

FREE LIQUID: YES  NO  (W) / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received: YES  NO

Emissivity: 0.97 Container: PE Thermometer ID: 908 Date/Time: 7/26/16 1730

Temperature: (A) 0.2 °C / (C) 0.3 °C Analyst Init: KEE

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES		D	D	D	D	D	GH	D	D	
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz		E	E	E	E	E	IT	E	E	
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PLA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK	A									
40ml VOA VIAL		ABC	ABC	ABC	ABC	ABC	A2F	ABC	ABC	
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
49 ml VOA VIAL- 504										
QT EPA 503/603/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: GSS Date/Time: 7/26/16

A = Actual / C = Corrected

Rev 21 05/23/2016  
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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1823367-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> TB-4-072618 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/26/2018 17:30 <b>Sampling Date:</b> 07/26/2018 07:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Blank Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): TB-4-072618 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1823367-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-22-3 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/26/2018 17:30 <b>Sampling Date:</b> 07/26/2018 08:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-22-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1823367-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-22-2 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/26/2018 17:30 <b>Sampling Date:</b> 07/26/2018 08:30 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-22-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1823367-04</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-22-1 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/26/2018 17:30 <b>Sampling Date:</b> 07/26/2018 09:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-22-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1823367-05</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-21-5 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/26/2018 17:30 <b>Sampling Date:</b> 07/26/2018 10:45 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-21-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1823367-06</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-21-4 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/26/2018 17:30 <b>Sampling Date:</b> 07/26/2018 10:20 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-21-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1823367-07</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-21-3 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/26/2018 17:30 <b>Sampling Date:</b> 07/26/2018 11:15 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-21-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1823367-08</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-21-2 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/26/2018 17:30 <b>Sampling Date:</b> 07/26/2018 12:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-21-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1823367-09</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> EB-4-072618 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/26/2018 17:30 <b>Sampling Date:</b> 07/26/2018 12:20 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): EB-4-072618 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823367-01	<b>Client Sample Name:</b> JPL, TB-4-072618, 7/26/2018 7:00:00AM, Thanh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823367-01	<b>Client Sample Name:</b> JPL, TB-4-072618, 7/26/2018 7:00:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823367-01	<b>Client Sample Name:</b> JPL, TB-4-072618, 7/26/2018 7:00:00AM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	94.5	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	99.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 12:00	08/01/18 00:24	MGC	MS-V5	1	B020163

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823367-01	<b>Client Sample Name:</b> JPL, TB-4-072618, 7/26/2018 7:00:00AM, Thanh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 12:00	08/01/18 00:24	MGC	MS-V5	1	B020163

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823367-02	<b>Client Sample Name:</b> JPL, MW-22-3, 7/26/2018 8:00:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823367-02	<b>Client Sample Name:</b> JPL, MW-22-3, 7/26/2018 8:00:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823367-02	<b>Client Sample Name:</b> JPL, MW-22-3, 7/26/2018 8:00:00AM, Thanh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	96.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 12:00	08/01/18 00:47	MGC	MS-V5	1	B020163

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823367-02	<b>Client Sample Name:</b> JPL, MW-22-3, 7/26/2018 8:00:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 12:00	08/01/18 00:47	MGC	MS-V5	1	B020163

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823367-02	<b>Client Sample Name:</b> JPL, MW-22-3, 7/26/2018 8:00:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	1.5	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 16:00	08/16/18 07:19	MIG	IC6	1	B021778

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**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823367-02	<b>Client Sample Name:</b> JPL, MW-22-3, 7/26/2018 8:00:00AM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0019	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	2.7	ug/L	3.0	0.50	EPA-200.8	0.83	J	2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/26/18 20:00	07/26/18 20:17		SAV	KONE-1	1	B020061
2	EPA-200.8	08/01/18 17:30	08/03/18 02:22		MH1	PE-EL3	1	B020479

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Reported: 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 1823367-03      **Client Sample Name:** JPL, MW-22-2, 7/26/2018 8:30:00AM, Tinh Hoang

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823367-03		<b>Client Sample Name:</b> JPL, MW-22-2, 7/26/2018 8:30:00AM, Tinh Hoang						
<b>Constituent</b>	<b>Result</b>	<b>Units</b>	<b>PQL</b>	<b>MDL</b>	<b>Method</b>	<b>MB Bias</b>	<b>Lab Quals</b>	<b>Run #</b>
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823367-03	<b>Client Sample Name:</b> JPL, MW-22-2, 7/26/2018 8:30:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	91.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 12:00	08/01/18 01:10	MGC	MS-V5	1	B020163

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823367-03	<b>Client Sample Name:</b> JPL, MW-22-2, 7/26/2018 8:30:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 12:00	08/01/18 01:10	MGC	MS-V5	1	B020163

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**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823367-03	<b>Client Sample Name:</b> JPL, MW-22-2, 7/26/2018 8:30:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	2.1	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 16:00	08/16/18 08:20	MIG	IC6	1	B021778

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Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823367-03	<b>Client Sample Name:</b> JPL, MW-22-2, 7/26/2018 8:30:00AM, Tinh Hoang							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0020	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>3.3</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>0.83</b>		<b>2</b>

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	07/26/18 20:00	07/26/18 20:17	SAV	KONE-1	1	B020061
2	EPA-200.8	08/01/18 17:30	08/03/18 02:25	MH1	PE-EL3	1	B020479

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Reported: 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 1823367-04 Client Sample Name: JPL, MW-22-1, 7/26/2018 9:00:00AM, Tinh Hoang

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.30</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Powell, OH 43065

Reported: 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 1823367-04		Client Sample Name: JPL, MW-22-1, 7/26/2018 9:00:00AM, Tinh Hoang						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.61</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823367-04	<b>Client Sample Name:</b> JPL, MW-22-1, 7/26/2018 9:00:00AM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 12:00	08/01/18 01:33	MGC	MS-V5	1	B020163

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Tidewater Inc.  
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Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823367-04	<b>Client Sample Name:</b> JPL, MW-22-1, 7/26/2018 9:00:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 12:00	08/01/18 01:33	MGC	MS-V5	1	B020163

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**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823367-04	<b>Client Sample Name:</b> JPL, MW-22-1, 7/26/2018 9:00:00AM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	2.7	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 16:00	08/16/18 08:36	MIG	IC6	1	B021778

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**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823367-04	<b>Client Sample Name:</b> JPL, MW-22-1, 7/26/2018 9:00:00AM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.00090	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
<b>Total Recoverable Chromium</b>	<b>1.9</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>0.83</b>	<b>J</b>	<b>2</b>

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	07/26/18 20:00	07/26/18 20:17	SAV	KONE-1	1	B020061
2	EPA-200.8	08/01/18 17:30	08/03/18 02:29	MH1	PE-EL3	1	B020479

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Reported: 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823367-05	<b>Client Sample Name:</b> JPL, MW-21-5, 7/26/2018 10:45:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>5.6</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 1823367-05		Client Sample Name: JPL, MW-21-5, 7/26/2018 10:45:00AM, Tinh Hoang						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.61</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823367-05	<b>Client Sample Name:</b> JPL, MW-21-5, 7/26/2018 10:45:00AM, Tinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	105	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 12:00	08/01/18 01:56	MGC	MS-V5	1	B020163

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Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823367-05	<b>Client Sample Name:</b> JPL, MW-21-5, 7/26/2018 10:45:00AM, Thinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 12:00	08/01/18 01:56	MGC	MS-V5	1	B020163

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Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823367-05	<b>Client Sample Name:</b> JPL, MW-21-5, 7/26/2018 10:45:00AM, Thinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	1.3	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 16:00	08/16/18 08:51	MIG	IC6	1	B021778

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Tidewater Inc.  
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Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823367-05	<b>Client Sample Name:</b> JPL, MW-21-5, 7/26/2018 10:45:00AM, Think Hoang							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0013	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	2.1	ug/L	3.0	0.50	EPA-200.8	0.83	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	07/26/18 20:00	07/26/18 20:17	SAV	KONE-1	1	B020061
2	EPA-200.8	08/01/18 17:30	08/03/18 02:32	MH1	PE-EL3	1	B020479

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Reported: 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823367-06	<b>Client Sample Name:</b> JPL, MW-21-4, 7/26/2018 10:20:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>5.0</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823367-06	<b>Client Sample Name:</b> JPL, MW-21-4, 7/26/2018 10:20:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.87</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.20</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823367-06	<b>Client Sample Name:</b> JPL, MW-21-4, 7/26/2018 10:20:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	97.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 12:00	08/01/18 02:19	MGC	MS-V5	1	B020163

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Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823367-06	<b>Client Sample Name:</b> JPL, MW-21-4, 7/26/2018 10:20:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 12:00	08/01/18 02:19	MGC	MS-V5	1	B020163

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Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823367-06	<b>Client Sample Name:</b> JPL, MW-21-4, 7/26/2018 10:20:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	1.5	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 16:00	08/16/18 09:06	MIG	IC6	1	B021778

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**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823367-06	<b>Client Sample Name:</b> JPL, MW-21-4, 7/26/2018 10:20:00AM, Think Hoang							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0010	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
<b>Total Recoverable Chromium</b>	<b>2.2</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>0.83</b>	<b>J</b>	<b>2</b>

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	07/26/18 20:00	07/26/18 20:21	SAV	KONE-1	1	B020061
2	EPA-200.8	08/01/18 17:30	08/03/18 02:36	MH1	PE-EL3	1	B020479

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Powell, OH 43065

Reported: 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823367-07	<b>Client Sample Name:</b> JPL, MW-21-3, 7/26/2018 11:15:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.36</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Powell, OH 43065

Reported: 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823367-07	<b>Client Sample Name:</b> JPL, MW-21-3, 7/26/2018 11:15:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.74</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.63</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Powell, OH 43065

**Reported:** 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823367-07	<b>Client Sample Name:</b> JPL, MW-21-3, 7/26/2018 11:15:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.0	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	104	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 12:00	07/31/18 08:39	MGC	MS-V5	1	B020163

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823367-07	<b>Client Sample Name:</b> JPL, MW-21-3, 7/26/2018 11:15:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 12:00	07/31/18 08:39	MGC	MS-V5	1	B020163

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**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823367-07	<b>Client Sample Name:</b> JPL, MW-21-3, 7/26/2018 11:15:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	2.3	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 16:00	08/16/18 09:22	MIG	IC6	1	B021778

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Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823367-07	<b>Client Sample Name:</b> JPL, MW-21-3, 7/26/2018 11:15:00AM, Tinh Hoang							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.3</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>0.83</b>	<b>J</b>	<b>2</b>

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	07/26/18 20:00	07/26/18 20:17	SAV	KONE-1	1	B020061
2	EPA-200.8	08/01/18 17:30	08/03/18 02:39	MH1	PE-EL3	1	B020479

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Powell, OH 43065

Reported: 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823367-08	<b>Client Sample Name:</b> JPL, MW-21-2, 7/26/2018 12:00:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823367-08	<b>Client Sample Name:</b> JPL, MW-21-2, 7/26/2018 12:00:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.51</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823367-08	<b>Client Sample Name:</b> JPL, MW-21-2, 7/26/2018 12:00:00PM, Tinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 12:00	08/01/18 02:43	MGC	MS-V5	1	B020163

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Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823367-08	<b>Client Sample Name:</b> JPL, MW-21-2, 7/26/2018 12:00:00PM, Tinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 12:00	08/01/18 02:43	MGC	MS-V5	1	B020163

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**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823367-08	<b>Client Sample Name:</b> JPL, MW-21-2, 7/26/2018 12:00:00PM, Thinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	1.3	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 16:00	08/16/18 10:08	MIG	IC6	1	B021778

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Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823367-08	<b>Client Sample Name:</b> JPL, MW-21-2, 7/26/2018 12:00:00PM, Think Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.1</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>0.83</b>	<b>J</b>	<b>2</b>

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/26/18 20:00	07/26/18 20:21		SAV	KONE-1	1	B020061
2	EPA-200.8	08/01/18 17:30	08/03/18 07:26		MH1	PE-EL3	1	B020479

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Powell, OH 43065

Reported: 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823367-09	<b>Client Sample Name:</b> JPL, EB-4-072618, 7/26/2018 12:20:00PM, Tinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823367-09	<b>Client Sample Name:</b> JPL, EB-4-072618, 7/26/2018 12:20:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823367-09	<b>Client Sample Name:</b> JPL, EB-4-072618, 7/26/2018 12:20:00PM, Tinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	96.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 12:00	08/01/18 03:06	MGC	MS-V5	1	B020163

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823367-09	<b>Client Sample Name:</b> JPL, EB-4-072618, 7/26/2018 12:20:00PM, Thanh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	07/30/18 12:00	08/01/18 03:06	MGC	MS-V5	1	B020163

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Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823367-09	<b>Client Sample Name:</b> JPL, EB-4-072618, 7/26/2018 12:20:00PM, Thanh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 16:00	08/16/18 10:23	MIG	IC6	1	B021778

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Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823367-09	<b>Client Sample Name:</b> JPL, EB-4-072618, 7/26/2018 12:20:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>2.2</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>0.83</b>	<b>J</b>	<b>2</b>

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/26/18 20:00	07/26/18 20:21		SAV	KONE-1	1	B020061
2	EPA-200.8	08/01/18 17:30	08/03/18 02:43		MH1	PE-EL3	1	B020479

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Powell, OH 43065

**Reported:** 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020163</b>						
Benzene	B020163-BLK1	ND	ug/L	0.50	0.11	
Bromobenzene	B020163-BLK1	ND	ug/L	0.50	0.15	
Bromochloromethane	B020163-BLK1	ND	ug/L	0.50	0.27	
Bromodichloromethane	B020163-BLK1	ND	ug/L	0.50	0.20	
Bromoform	B020163-BLK1	ND	ug/L	0.50	0.46	
Bromomethane	B020163-BLK1	ND	ug/L	0.50	0.20	
n-Butylbenzene	B020163-BLK1	ND	ug/L	0.50	0.15	
sec-Butylbenzene	B020163-BLK1	ND	ug/L	0.50	0.13	
tert-Butylbenzene	B020163-BLK1	ND	ug/L	0.50	0.18	
Carbon tetrachloride	B020163-BLK1	ND	ug/L	0.50	0.17	
Chlorobenzene	B020163-BLK1	ND	ug/L	0.50	0.14	
Chloroethane	B020163-BLK1	ND	ug/L	0.50	0.17	
Chloroform	B020163-BLK1	ND	ug/L	0.50	0.14	
Chloromethane	B020163-BLK1	ND	ug/L	0.50	0.11	
2-Chlorotoluene	B020163-BLK1	ND	ug/L	0.50	0.14	
4-Chlorotoluene	B020163-BLK1	ND	ug/L	0.50	0.093	
Dibromochloromethane	B020163-BLK1	ND	ug/L	0.50	0.22	
1,2-Dibromo-3-chloropropane	B020163-BLK1	ND	ug/L	1.0	0.89	
1,2-Dibromoethane	B020163-BLK1	ND	ug/L	0.50	0.22	
Dibromomethane	B020163-BLK1	ND	ug/L	0.50	0.23	
1,2-Dichlorobenzene	B020163-BLK1	ND	ug/L	0.50	0.21	
1,3-Dichlorobenzene	B020163-BLK1	ND	ug/L	0.50	0.16	
1,4-Dichlorobenzene	B020163-BLK1	ND	ug/L	0.50	0.15	
Dichlorodifluoromethane	B020163-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethane	B020163-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloroethane	B020163-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	B020163-BLK1	ND	ug/L	0.50	0.27	
cis-1,2-Dichloroethene	B020163-BLK1	ND	ug/L	0.50	0.27	
trans-1,2-Dichloroethene	B020163-BLK1	ND	ug/L	0.50	0.17	
1,2-Dichloropropane	B020163-BLK1	ND	ug/L	0.50	0.15	
1,3-Dichloropropane	B020163-BLK1	ND	ug/L	0.50	0.13	
2,2-Dichloropropane	B020163-BLK1	ND	ug/L	0.50	0.18	
1,1-Dichloropropene	B020163-BLK1	ND	ug/L	0.50	0.19	
cis-1,3-Dichloropropene	B020163-BLK1	ND	ug/L	0.50	0.14	

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020163</b>						
trans-1,3-Dichloropropene	B020163-BLK1	ND	ug/L	0.50	0.13	
Ethylbenzene	B020163-BLK1	ND	ug/L	0.50	0.15	
Hexachlorobutadiene	B020163-BLK1	ND	ug/L	0.50	0.20	
Isopropylbenzene	B020163-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	B020163-BLK1	ND	ug/L	0.50	0.14	
Methylene chloride	B020163-BLK1	ND	ug/L	0.50	0.21	
Methyl t-butyl ether	B020163-BLK1	ND	ug/L	0.50	0.14	
Naphthalene	B020163-BLK1	ND	ug/L	0.50	0.16	
n-Propylbenzene	B020163-BLK1	ND	ug/L	0.50	0.12	
Styrene	B020163-BLK1	ND	ug/L	0.50	0.12	
1,1,1,2-Tetrachloroethane	B020163-BLK1	ND	ug/L	0.50	0.21	
1,1,1,2,2-Tetrachloroethane	B020163-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	B020163-BLK1	ND	ug/L	0.50	0.23	
Toluene	B020163-BLK1	ND	ug/L	0.50	0.17	
1,2,3-Trichlorobenzene	B020163-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trichlorobenzene	B020163-BLK1	ND	ug/L	0.50	0.15	
1,1,1-Trichloroethane	B020163-BLK1	ND	ug/L	0.50	0.21	
1,1,2-Trichloroethane	B020163-BLK1	ND	ug/L	0.50	0.21	
Trichloroethene	B020163-BLK1	ND	ug/L	0.50	0.19	
Trichlorofluoromethane	B020163-BLK1	ND	ug/L	0.50	0.14	
1,2,3-Trichloropropane	B020163-BLK1	ND	ug/L	1.0	0.78	
1,1,2-Trichloro-1,2,2-trifluoroethane	B020163-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trimethylbenzene	B020163-BLK1	ND	ug/L	0.50	0.17	
1,3,5-Trimethylbenzene	B020163-BLK1	ND	ug/L	0.50	0.14	
Vinyl chloride	B020163-BLK1	ND	ug/L	0.50	0.18	
Acetone	B020163-BLK1	ND	ug/L	10	6.6	
Acrylonitrile	B020163-BLK1	ND	ug/L	5.0	1.5	
Allyl chloride	B020163-BLK1	ND	ug/L	5.0	0.47	
t-Amyl Methyl ether	B020163-BLK1	ND	ug/L	0.50	0.19	
t-Butyl alcohol	B020163-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	B020163-BLK1	ND	ug/L	1.0	0.48	
trans-1,4-Dichloro-2-butene	B020163-BLK1	ND	ug/L	5.0	1.8	
Diethyl ether	B020163-BLK1	ND	ug/L	2.0	0.33	
Ethyl methacrylate	B020163-BLK1	ND	ug/L	4.0	1.3	

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020163</b>						
Ethyl t-butyl ether	B020163-BLK1	ND	ug/L	0.50	0.32	
Hexachloroethane	B020163-BLK1	ND	ug/L	0.50	0.11	
2-Hexanone	B020163-BLK1	ND	ug/L	10	5.0	
Methacrylonitrile	B020163-BLK1	ND	ug/L	10	2.3	
Methyl ethyl ketone	B020163-BLK1	ND	ug/L	10	3.3	
Methyl iodide	B020163-BLK1	ND	ug/L	2.0	1.1	
Methyl isobutyl ketone	B020163-BLK1	ND	ug/L	10	2.4	
Methyl methacrylate	B020163-BLK1	ND	ug/L	5.0	1.2	
Pentachloroethane	B020163-BLK1	ND	ug/L	2.0	0.63	
Propionitrile	B020163-BLK1	ND	ug/L	20	6.2	
Tetrahydrofuran	B020163-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	B020163-BLK1	ND	ug/L	0.50	0.34	
o-Xylene	B020163-BLK1	ND	ug/L	0.50	0.13	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>B020163-BLK1</b>	<b>97.1</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>B020163-BLK1</b>	<b>97.0</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>B020163-BLK1</b>	<b>97.1</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		

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Powell, OH 43065

**Reported:** 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B020163</b>										
Benzene	B020163-BS1	LCS	24.660	25.000	ug/L	98.6		70 - 130		
Bromodichloromethane	B020163-BS1	LCS	25.350	25.000	ug/L	101		70 - 130		
Chlorobenzene	B020163-BS1	LCS	24.440	25.000	ug/L	97.8		70 - 130		
Chloroethane	B020163-BS1	LCS	25.300	25.000	ug/L	101		70 - 130		
1,4-Dichlorobenzene	B020163-BS1	LCS	23.870	25.000	ug/L	95.5		70 - 130		
1,1-Dichloroethane	B020163-BS1	LCS	25.200	25.000	ug/L	101		70 - 130		
1,1-Dichloroethene	B020163-BS1	LCS	24.730	25.000	ug/L	98.9		70 - 130		
Toluene	B020163-BS1	LCS	24.380	25.000	ug/L	97.5		70 - 130		
Trichloroethene	B020163-BS1	LCS	25.550	25.000	ug/L	102		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B020163-BS1	LCS	9.6200	10.000	ug/L	96.2		75 - 125		
Toluene-d8 (Surrogate)	B020163-BS1	LCS	9.7200	10.000	ug/L	97.2		80 - 120		
4-Bromofluorobenzene (Surrogate)	B020163-BS1	LCS	9.5600	10.000	ug/L	95.6		80 - 120		

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B020163</b>		Used client sample: Y - Description: MW-21-3, 07/26/2018 11:15								
Benzene	MS	1823367-07	ND	25.530	25.000	ug/L		102		70 - 130
	MSD	1823367-07	ND	25.220	25.000	ug/L	1.2	101	20	70 - 130
Bromodichloromethane	MS	1823367-07	ND	25.850	25.000	ug/L		103		70 - 130
	MSD	1823367-07	ND	25.510	25.000	ug/L	1.3	102	20	70 - 130
Chlorobenzene	MS	1823367-07	ND	24.950	25.000	ug/L		99.8		70 - 130
	MSD	1823367-07	ND	24.930	25.000	ug/L	0.1	99.7	20	70 - 130
Chloroethane	MS	1823367-07	ND	26.290	25.000	ug/L		105		70 - 130
	MSD	1823367-07	ND	26.640	25.000	ug/L	1.3	107	20	70 - 130
1,4-Dichlorobenzene	MS	1823367-07	ND	24.170	25.000	ug/L		96.7		70 - 130
	MSD	1823367-07	ND	23.690	25.000	ug/L	2.0	94.8	20	70 - 130
1,1-Dichloroethane	MS	1823367-07	ND	25.620	25.000	ug/L		102		70 - 130
	MSD	1823367-07	ND	25.370	25.000	ug/L	1.0	101	20	70 - 130
1,1-Dichloroethene	MS	1823367-07	ND	25.370	25.000	ug/L		101		70 - 130
	MSD	1823367-07	ND	25.390	25.000	ug/L	0.1	102	20	70 - 130
Toluene	MS	1823367-07	ND	25.290	25.000	ug/L		101		70 - 130
	MSD	1823367-07	ND	25.000	25.000	ug/L	1.2	100	20	70 - 130
Trichloroethene	MS	1823367-07	0.63000	25.610	25.000	ug/L		99.9		70 - 130
	MSD	1823367-07	0.63000	25.640	25.000	ug/L	0.1	100	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1823367-07	ND	10.100	10.000	ug/L		101		75 - 125
	MSD	1823367-07	ND	9.1900	10.000	ug/L	9.4	91.9		75 - 125
Toluene-d8 (Surrogate)	MS	1823367-07	ND	10.080	10.000	ug/L		101		80 - 120
	MSD	1823367-07	ND	9.8900	10.000	ug/L	1.9	98.9		80 - 120
4-Bromofluorobenzene (Surrogate)	MS	1823367-07	ND	9.5300	10.000	ug/L		95.3		80 - 120
	MSD	1823367-07	ND	9.8800	10.000	ug/L	3.6	98.8		80 - 120

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020163</b>						
Chloroacetonitrile	B020163-BLK1	0	ug/L			
1-Chlorobutane	B020163-BLK1	0	ug/L			
1,1-Dichloropropanone	B020163-BLK1	0	ug/L			
Methyl acrylate	B020163-BLK1	0	ug/L			
Nitrobenzene	B020163-BLK1	0	ug/L			
2-Nitropropane	B020163-BLK1	0	ug/L			

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B021778</b>						
Perchlorate	B021778-BLK1	ND	ug/L	4.0	0.58	

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B021778</b>										
Perchlorate	B021778-BS1	LCS	10.900	10.000	ug/L	109		85	115	

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B021778</b>		Used client sample: Y - Description: MW-22-3, 07/26/2018 08:00								
Perchlorate	DUP	1823367-02	1.5281	1.6190		ug/L	5.8		15	J
	MS	1823367-02	1.5281	11.310	10.101	ug/L		96.8	80 - 120	
	MSD	1823367-02	1.5281	10.946	10.101	ug/L	3.3	93.2	15 80 - 120	

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020061</b>						
Hexavalent Chromium	B020061-BLK1	ND	mg/L	0.0020	0.00070	
<b>QC Batch ID: B020479</b>						
Total Recoverable Chromium	B020479-BLK1	0.82800	ug/L	3.0	0.50	J

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 9:09  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Metals Analysis

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B020061</b>										
Hexavalent Chromium	B020061-BS1	LCS	0.051419	0.050000	mg/L	103		85 - 115		
<b>QC Batch ID: B020479</b>										
Total Recoverable Chromium	B020479-BS1	LCS	41.203	40.000	ug/L	103		85 - 115		

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B020061</b>		Used client sample: Y - Description: MW-21-3, 07/26/2018 11:15								
Hexavalent Chromium	DUP	1823367-07	ND	ND		mg/L			10	
	MS	1823367-07	ND	0.053744	0.052632	mg/L		102		85 - 115
	MSD	1823367-07	ND	0.053979	0.052632	mg/L	0.4	103	10	85 - 115
<b>QC Batch ID: B020479</b>		Used client sample: Y - Description: MW-21-2, 07/26/2018 12:00								
Total Recoverable Chromium	DUP	1823367-08	1.0630	1.0430		ug/L	1.9		20	J
	MS	1823367-08	1.0630	38.612	40.000	ug/L		93.9		70 - 130
	MSD	1823367-08	1.0630	37.067	40.000	ug/L	4.1	90.0	20	70 - 130

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 9:09  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit





Date of Report: 08/21/2018

David Conner

Tidewater Inc.

3761 Attucks Drive  
Powell, OH 43065

Client Project: 3Q18  
BCL Project: JPL- GW Monitoring Wells  
BCL Work Order: 1823555  
Invoice ID:

Enclosed are the results of analyses for samples received by the laboratory on 7/30/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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# Table of Contents

## Sample Information

Chain of Custody and Cooler Receipt form.....	4
Laboratory / Client Sample Cross Reference.....	7

## Sample Results

<b>1823555-01 - TB-5-073018</b>	
Volatile Organic Analysis (EPA Method 524.2).....	11
Volatile Organic Analysis (EPA Method 524.2) TICs.....	14
<b>1823555-02 - MW-24-4</b>	
Metals Analysis.....	15
<b>1823555-03 - MW-24-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	16
Volatile Organic Analysis (EPA Method 524.2) TICs.....	19
Water Analysis (General Chemistry).....	20
Metals Analysis.....	21
<b>1823555-04 - MW-24-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	22
Volatile Organic Analysis (EPA Method 524.2) TICs.....	25
Water Analysis (General Chemistry).....	26
Metals Analysis.....	27
<b>1823555-05 - MW-24-1</b>	
Volatile Organic Analysis (EPA Method 524.2).....	28
Volatile Organic Analysis (EPA Method 524.2) TICs.....	31
Water Analysis (General Chemistry).....	32
Metals Analysis.....	33
<b>1823555-06 - Dup-3-3Q18</b>	
Volatile Organic Analysis (EPA Method 524.2).....	34
Volatile Organic Analysis (EPA Method 524.2) TICs.....	37
Water Analysis (General Chemistry).....	38
Metals Analysis.....	39
<b>1823555-07 - MW-17-4</b>	
Volatile Organic Analysis (EPA Method 524.2).....	40
Volatile Organic Analysis (EPA Method 524.2) TICs.....	43
Water Analysis (General Chemistry).....	44
Metals Analysis.....	45
<b>1823555-08 - MW-17-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	46
Volatile Organic Analysis (EPA Method 524.2) TICs.....	49
Water Analysis (General Chemistry).....	50
Metals Analysis.....	51
<b>1823555-09 - MW-17-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	52
Volatile Organic Analysis (EPA Method 524.2) TICs.....	55
Water Analysis (General Chemistry).....	56
Metals Analysis.....	57
<b>1823555-10 - EB-5-073018</b>	
Volatile Organic Analysis (EPA Method 524.2).....	58
Volatile Organic Analysis (EPA Method 524.2) TICs.....	61
Water Analysis (General Chemistry).....	62
Metals Analysis.....	63
<b>1823555-11 - SB-2-073018</b>	
Volatile Organic Analysis (EPA Method 524.2).....	64
Volatile Organic Analysis (EPA Method 524.2) TICs.....	67
Water Analysis (General Chemistry).....	68
Metals Analysis.....	69

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## Table of Contents

### Quality Control Reports

#### Volatile Organic Analysis (EPA Method 524.2)

Method Blank Analysis.....	70
Laboratory Control Sample.....	75
Precision and Accuracy.....	76

#### Volatile Organic Analysis (EPA Method 524.2) TICs

Method Blank Analysis.....	78
----------------------------	----

#### Water Analysis (General Chemistry)

Method Blank Analysis.....	79
Laboratory Control Sample.....	80
Precision and Accuracy.....	81

#### Metals Analysis

Method Blank Analysis.....	82
Laboratory Control Sample.....	83
Precision and Accuracy.....	84

### Notes

Notes and Definitions.....	85
----------------------------	----



Chain of Custody Form

Page 1 of 1

18-23555

**Billing**

Client: Tidewater, Inc.  
 Attn: David Conner  
 Address: 3761 Alluicks Drive  
 City: Powell State: OH Zip: 43065

Are there any tests with holding times less than or equal to 48 hours?  
 Yes  No

\*Standard Turnaround = 10

**Analysis Requested**

Hexavalent Cr (7199)	
Nitrite (353.2)	
Orthophosphate (365.1)	
Chloride, Nitrate, Sulfate (300)	
Perchlorate (EPA 514.0)	
Total Cr (200.8)	
VOCs EPA 524.2	

**Project Description:** JPL-GW Monitoring

**Project Code:** 3Q18

**Sampler(s):** Blaine Tech  
 T1, T2, T3, T4, T5, T6, T7, T8, T9, T10, T11, T12, T13, T14, T15, T16, T17, T18, T19, T20, T21, T22, T23, T24, T25, T26, T27, T28, T29, T30, T31, T32, T33, T34, T35, T36, T37, T38, T39, T40, T41, T42, T43, T44, T45, T46, T47, T48, T49, T50, T51, T52, T53, T54, T55, T56, T57, T58, T59, T60, T61, T62, T63, T64, T65, T66, T67, T68, T69, T70, T71, T72, T73, T74, T75, T76, T77, T78, T79, T80, T81, T82, T83, T84, T85, T86, T87, T88, T89, T90, T91, T92, T93, T94, T95, T96, T97, T98, T99, T100

**Report To:** Tidewater, Inc.  
**Client:** David Conner  
**Street Address:** 3761 Alluicks Drive  
**City:** Powell **State:** OH **Zip:** 43065  
**Phone:** 626 1 288 - 5715 **Fax:** 614 1 792 - 2897  
**Email Address:** david.conner@tidetco.net  
**Submission #:**

Sample #	Sample Description	Date	Time	Matrix*	Analysis Requested
-1	TB-5-073018	07/30/18	0700	GW	X
-2	MW-24-4	07/30/18	0745	GW	X
-3	MW-24-3	0810	0810	GW	X
-4	MW-24-2	0840	0840	GW	X
-5	MW-24-1	0900	0900	GW	X
-6	DIP-3-3018	0910	0910	GW	X
-7	MW-17-4	1200	1200	GW	X
-8	MW-17-3	1250	1250	GW	X
-9	MW-17-2	1320	1320	GW	X
-10	EB-5-073018	1330	1330	GW	X
-11	SB-2-073018	1340	1340	GW	X

**Matrix Types:** S = Soil SL = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other

**Turnaround # of working days:**  24 Hr Rush  48 Hr Rush  3-5 Day Rush  Normal (10 - Days)

**Lab TAT Approval:** \_\_\_\_\_

\*Additional Charges May Apply

**Notes:**

Level IV ALL STORE HOLDING TIME  
 CRISTROUTION  
 DO Cl<sub>2</sub> BOD MEAS CO

**Global ID:**

**Cost Center:**

1. Relinquished By: [Signature] Date: 07/30/18 Time: 13:50  
 2. Relinquished By: [Signature] Date: 7-30-18 Time: 2:15  
 3. Relinquished By: [Signature] Date: 7-30-18 Time: 16:25

**Comments:**

PLEASE NOTATE WHICH SAMPLES TO USE FOR OC (MS/MSD) 90% Level III and 10% Level IV data validation required. Level IV Notated on C of C NOTE: ALL ANALYSIS REQUIRED TO HAVE CALIBRATION SUMMARIES (Inform QC)

**MBU Site**   
**CIV RCRA**   
**Geotracker 5 File (CA Default)**   
**Geotracker 2 File**   
**Other (Specify)** \_\_\_\_\_

**BC Laboratories, Inc. 4100 Atlas Court - Bakersfield CA 93308 (661) 327 - 4911 Fax: (661) 327 - 1918 www.bclabs.com**

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 2 of 2

Submission #: 18-23555

SHIPPING INFORMATION  
Fed Ex  UPS  Ontrac  Hand Delivery   
BC Lab Field Service  Other  (Specify) \_\_\_\_\_

SHIPPING CONTAINER  
Ice Chest  None  Box   
Other  (Specify) \_\_\_\_\_

FREE LIQUID  
YES  NO   
W / S

Refrigerant: Ice  Blue Ice  None  Other  Comments:

Custody Seals Ice Chest  Containers  None  Comments:  
Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  
 YES  NO

Emissivity: 97 Container: PTPE Thermometer ID: 274  
Temperature: (A) 0.0 °C / (C) 0.0 °C

Date/Time: 7/30/18  
Analyst Initial: AB

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES		A	D	D	D	D	GH			
4oz / 8oz / 16oz PE UNPRES					E					
2oz Cr <sup>6+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz		B	E	E	FF	E	IS			
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK	A									
40ml VOA VIAL		ABC	ABC	ABC	ABC	A-E	ABC	ABC	ABC	
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 567										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 3270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:  
Sample Numbering Completed By: AB  
A = Actual / C = Corrected

Date/Time: 7/30/18 CTM  
Rev 21 05/23/2016  
IS:\WP\Doc\WordPerfect\LAB DOCS\FORMS\SAMRECrev 201

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 2 of 2

Submission #: 18-2355

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

FREE LIQUID: YES  NO  W / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received: YES  NO

Emissivity: 97 Container: 274 Thermometer ID: 274 Date/Time: 7/30/18

Temperature: (A) 0.7 °C / (C) 0.7 °C Analyst In: AB 10:28

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz	E	E	E	E						
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	ABCL									
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/618/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8915M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: AB Date/Time: 7/30/18 1714

A = Actual / C = Corrected

Rev 21 05/23/2016  
 IS:WFOBstWardPerfectLAB DOCS\FORMS\SAMREC\rev 201



Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1823555-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> PL Groundwater Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> TB-5-073018 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/30/2018 16:25 <b>Sampling Date:</b> 07/30/2018 07:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Blank Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): TB-5-073018 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1823555-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> PL Groundwater Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-24-4 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/30/2018 16:25 <b>Sampling Date:</b> 07/30/2018 07:45 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: Location ID (FieldPoint): MW-24-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1823555-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> PL Groundwater Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-24-3 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/30/2018 16:25 <b>Sampling Date:</b> 07/30/2018 08:10 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: Location ID (FieldPoint): MW-24-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1823555-04</b>	<b>COC Number:</b> --- <b>Project Number:</b> PL Groundwater Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-24-2 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/30/2018 16:25 <b>Sampling Date:</b> 07/30/2018 08:40 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: Location ID (FieldPoint): MW-24-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1823555-05</b>	<b>COC Number:</b> --- <b>Project Number:</b> PL Groundwater Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-24-1 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/30/2018 16:25 <b>Sampling Date:</b> 07/30/2018 09:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: Location ID (FieldPoint): MW-24-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1823555-06</b>	<b>COC Number:</b> --- <b>Project Number:</b> PL Groundwater Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> Dup-3-3Q18 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/30/2018 16:25 <b>Sampling Date:</b> 07/30/2018 09:10 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: Location ID (FieldPoint): Dup-3-3Q18 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1823555-07</b>	<b>COC Number:</b> --- <b>Project Number:</b> PL Groundwater Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-17-4 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/30/2018 16:25 <b>Sampling Date:</b> 07/30/2018 12:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: Location ID (FieldPoint): MW-17-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1823555-08</b>	<b>COC Number:</b> --- <b>Project Number:</b> PL Groundwater Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-17-3 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/30/2018 16:25 <b>Sampling Date:</b> 07/30/2018 12:50 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: Location ID (FieldPoint): MW-17-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1823555-09</b>	<b>COC Number:</b> --- <b>Project Number:</b> PL Groundwater Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-17-2 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/30/2018 16:25 <b>Sampling Date:</b> 07/30/2018 13:20 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: Location ID (FieldPoint): MW-17-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1823555-10</b>	<b>COC Number:</b> --- <b>Project Number:</b> PL Groundwater Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> EB-5-073018 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/30/2018 16:25 <b>Sampling Date:</b> 07/30/2018 13:30 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: Location ID (FieldPoint): EB-5-073018 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1823555-11</b>	<b>COC Number:</b> --- <b>Project Number:</b> PL Groundwater Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> SB-2-073018 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/30/2018 16:25 <b>Sampling Date:</b> 07/30/2018 13:40 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: Location ID (FieldPoint): SB-2-073018 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Reported: 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-01	<b>Client Sample Name:</b> PL Groundwater Monitoring, TB-5-073018, 7/30/2018 7:00:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-01	<b>Client Sample Name:</b> PL Groundwater Monitoring, TB-5-073018, 7/30/2018 7:00:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-01	<b>Client Sample Name:</b> PL Groundwater Monitoring, TB-5-073018, 7/30/2018 7:00:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	93.7	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	90.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 08:31	MGC	MS-V5	1	B020600

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**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823555-01	<b>Client Sample Name:</b> PL Groundwater Monitoring, TB-5-073018, 7/30/2018 7:00:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 08:31	MGC	MS-V5	1	B020600

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**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823555-02	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-24-4, 7/30/2018 7:45:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>2.1</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>2.3</b>	<b>J</b>	<b>2</b>

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/30/18 21:49	07/30/18 21:49		SAV	KONE-1	1	B020580
2	EPA-200.8	08/01/18 17:30	08/03/18 05:24		ARD	PE-EL3	1	B020480

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Powell, OH 43065

Reported: 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-03	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-24-3, 7/30/2018 8:10:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-03	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-24-3, 7/30/2018 8:10:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-03	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-24-3, 7/30/2018 8:10:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	91.9	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	91.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	93.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 08:54	MGC	MS-V5	1	B020600

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Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823555-03	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-24-3, 7/30/2018 8:10:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 08:54	MGC	MS-V5	1	B020600

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Tidewater Inc.  
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Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823555-03	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-24-3, 7/30/2018 8:10:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 16:00	08/16/18 11:09	MIG	IC6	1	B021778

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Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823555-03	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-24-3, 7/30/2018 8:10:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.9</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	2.3	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	07/30/18 21:49	07/30/18 21:49	SAV	KONE-1	1	B020580
2	EPA-200.8	08/01/18 17:30	08/03/18 05:28	ARD	PE-EL3	1	B020480

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Reported: 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-04	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-24-2, 7/30/2018 8:40:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.18</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-04	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-24-2, 7/30/2018 8:40:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-04	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-24-2, 7/30/2018 8:40:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	89.2	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 09:17	MGC	MS-V5	1	B020600

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823555-04	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-24-2, 7/30/2018 8:40:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 09:17	MGC	MS-V5	1	B020600

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823555-04	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-24-2, 7/30/2018 8:40:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	1.5	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 16:00	08/16/18 11:25	MIG	IC6	1	B021778

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Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823555-04	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-24-2, 7/30/2018 8:40:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>2.4</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND	J	2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/30/18 21:49	07/30/18 21:49		SAV	KONE-1	1	B020580
2	EPA-200.8	08/02/18 08:30	08/03/18 06:12		MH1	PE-EL2	1	B020536

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Powell, OH 43065

Reported: 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-05	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-24-1, 7/30/2018 9:00:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>2.6</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-05	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-24-1, 7/30/2018 9:00:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-05	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-24-1, 7/30/2018 9:00:00AM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	91.9	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	90.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 09:40	MGC	MS-V5	1	B020600

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823555-05	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-24-1, 7/30/2018 9:00:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 09:40	MGC	MS-V5	1	B020600

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Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823555-05	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-24-1, 7/30/2018 9:00:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloride	94	mg/L	0.50	0.077	EPA-300.0	ND		1
Nitrate as N	1.4	mg/L	0.10	0.021	EPA-300.0	ND		1
Sulfate	54	mg/L	1.0	0.13	EPA-300.0	ND		1
Nitrite as N	0.021	mg/L	0.050	0.010	EPA-353.2	0.020	J	2
Perchlorate	0.64	ug/L	4.0	0.58	EPA-314.0	ND	J	3
ortho-Phosphate as P	ND	mg/L	0.050	0.017	EPA-365.1	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	07/31/18 00:30	07/31/18 02:46	EMW	IC8	1	B020364
2	EPA-353.2	07/31/18 08:21	07/31/18 08:25	MC1	KONE-1	1	B020630
3	EPA-314.0	08/15/18 16:00	08/16/18 11:40	MIG	IC6	1	B021778
4	EPA-365.1	07/31/18 14:07	07/31/18 14:28	MC1	KONE-1	1	B020612

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Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823555-05	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-24-1, 7/30/2018 9:00:00AM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>2.8</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	07/30/18 21:49	07/30/18 22:08	SAV	KONE-1	1	B020580
2	EPA-200.8	08/02/18 08:30	08/03/18 06:33	MH1	PE-EL2	1	B020536

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Powell, OH 43065

Reported: 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-06	<b>Client Sample Name:</b> PL Groundwater Monitoring, Dup-3-3Q18, 7/30/2018 9:10:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>1.4</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-06	<b>Client Sample Name:</b> PL Groundwater Monitoring, Dup-3-3Q18, 7/30/2018 9:10:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-06	<b>Client Sample Name:</b> PL Groundwater Monitoring, Dup-3-3Q18, 7/30/2018 9:10:00AM, Tinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	95.5	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/07/18 06:00	08/07/18 20:13	MGC	MS-V5	1	B020924

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823555-06	<b>Client Sample Name:</b> PL Groundwater Monitoring, Dup-3-3Q18, 7/30/2018 9:10:00AM, Tinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/07/18 06:00	08/07/18 20:13	MGC	MS-V5	1	B020924

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823555-06	<b>Client Sample Name:</b> PL Groundwater Monitoring, Dup-3-3Q18, 7/30/2018 9:10:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	0.70	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 16:00	08/16/18 16:35	MIG	IC6	1	B021778

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823555-06	<b>Client Sample Name:</b> PL Groundwater Monitoring, Dup-3-3Q18, 7/30/2018 9:10:00AM, Tinh Hoang							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>3.1</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	07/30/18 21:49	07/30/18 21:53	SAV	KONE-1	1	B020580
2	EPA-200.8	08/02/18 08:30	08/03/18 06:48	MH1	PE-EL2	1	B020536

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Tidewater Inc.  
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Powell, OH 43065

Reported: 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-07	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-17-4, 7/30/2018 12:00:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.41</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-07	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-17-4, 7/30/2018 12:00:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.28</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.64</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-07	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-17-4, 7/30/2018 12:00:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	89.0	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	88.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 06:13	MGC	MS-V5	1	B020600

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823555-07	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-17-4, 7/30/2018 12:00:00PM, Thinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 06:13	MGC	MS-V5	1	B020600

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823555-07	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-17-4, 7/30/2018 12:00:00PM, Thinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	3.1	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 16:00	08/16/18 12:11	MIG	IC6	1	B021778

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823555-07	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-17-4, 7/30/2018 12:00:00PM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.00078	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
<b>Total Recoverable Chromium</b>	<b>3.3</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>2.3</b>		<b>2</b>

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	07/30/18 21:49	07/30/18 21:49	SAV	KONE-1	1	B020580
2	EPA-200.8	08/01/18 17:30	08/03/18 04:26	ARD	PE-EL3	1	B020480

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-08	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-17-3, 7/30/2018 12:50:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.28</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-08	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-17-3, 7/30/2018 12:50:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.27</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>1.2</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-08	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-17-3, 7/30/2018 12:50:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	94.0	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	91.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 10:26	MGC	MS-V5	1	B020600

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823555-08	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-17-3, 7/30/2018 12:50:00PM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 10:26	MGC	MS-V5	1	B020600

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Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823555-08	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-17-3, 7/30/2018 12:50:00PM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	3.5	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 16:00	08/16/18 17:06	MIG	IC6	1	B021778

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Tidewater Inc.  
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Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823555-08	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-17-3, 7/30/2018 12:50:00PM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/30/18 21:49	07/30/18 21:53		SAV	KONE-1	1	B020580
2	EPA-200.8	08/02/18 08:30	08/03/18 06:51		MH1	PE-EL2	1	B020536

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Powell, OH 43065

Reported: 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-09	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-17-2, 7/30/2018 1:20:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-09	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-17-2, 7/30/2018 1:20:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-09	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-17-2, 7/30/2018 1:20:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	91.8	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	95.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	89.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 10:49	MGC	MS-V5	1	B020600

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823555-09	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-17-2, 7/30/2018 1:20:00PM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 10:49	MGC	MS-V5	1	B020600

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Tidewater Inc.  
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Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823555-09	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-17-2, 7/30/2018 1:20:00PM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 16:00	08/16/18 13:27	MIG	IC6	1	B021778

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Tidewater Inc.  
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Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823555-09	<b>Client Sample Name:</b> PL Groundwater Monitoring, MW-17-2, 7/30/2018 1:20:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.00070	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/31/18 11:45	07/31/18 11:45		MC1	KONE-1	1	B020617
2	EPA-200.8	08/02/18 08:30	08/03/18 06:55		MH1	PE-EL2	1	B020536

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Tidewater Inc.  
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Powell, OH 43065

Reported: 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-10	<b>Client Sample Name:</b> PL Groundwater Monitoring, EB-5-073018, 7/30/2018 1:30:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-10	<b>Client Sample Name:</b> PL Groundwater Monitoring, EB-5-073018, 7/30/2018 1:30:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-10	<b>Client Sample Name:</b> PL Groundwater Monitoring, EB-5-073018, 7/30/2018 1:30:00PM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	91.0	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	86.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 11:12	MGC	MS-V5	1	B020600

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Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823555-10	<b>Client Sample Name:</b> PL Groundwater Monitoring, EB-5-073018, 7/30/2018 1:30:00PM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 11:12	MGC	MS-V5	1	B020600

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Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823555-10	<b>Client Sample Name:</b> PL Groundwater Monitoring, EB-5-073018, 7/30/2018 1:30:00PM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 16:00	08/16/18 13:43	MIG	IC6	1	B021778

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Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823555-10	<b>Client Sample Name:</b> PL Groundwater Monitoring, EB-5-073018, 7/30/2018 1:30:00PM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/30/18 21:49	07/30/18 21:53		SAV	KONE-1	1	B020580
2	EPA-200.8	08/02/18 08:30	08/03/18 06:58		MH1	PE-EL2	1	B020536

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Tidewater Inc.  
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Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-11	<b>Client Sample Name:</b> PL Groundwater Monitoring, SB-2-073018, 7/30/2018 1:40:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-11	<b>Client Sample Name:</b> PL Groundwater Monitoring, SB-2-073018, 7/30/2018 1:40:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823555-11	<b>Client Sample Name:</b> PL Groundwater Monitoring, SB-2-073018, 7/30/2018 1:40:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.3	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	84.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 11:35	MGC	MS-V5	1	B020600

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Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823555-11	<b>Client Sample Name:</b> PL Groundwater Monitoring, SB-2-073018, 7/30/2018 1:40:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 11:35	MGC	MS-V5	1	B020600

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Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823555-11	<b>Client Sample Name:</b> PL Groundwater Monitoring, SB-2-073018, 7/30/2018 1:40:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/15/18 16:00	08/16/18 13:58	SAV	IC6	1	B021778

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Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823555-11	<b>Client Sample Name:</b> PL Groundwater Monitoring, SB-2-073018, 7/30/2018 1:40:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/30/18 21:49	07/30/18 21:53		SAV	KONE-1	1	B020580
2	EPA-200.8	08/02/18 08:30	08/03/18 07:02		MH1	PE-EL2	1	B020536

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Powell, OH 43065

**Reported:** 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020600</b>						
Benzene	B020600-BLK1	ND	ug/L	0.50	0.11	
Bromobenzene	B020600-BLK1	ND	ug/L	0.50	0.15	
Bromochloromethane	B020600-BLK1	ND	ug/L	0.50	0.27	
Bromodichloromethane	B020600-BLK1	ND	ug/L	0.50	0.20	
Bromoform	B020600-BLK1	ND	ug/L	0.50	0.46	
Bromomethane	B020600-BLK1	ND	ug/L	0.50	0.20	
n-Butylbenzene	B020600-BLK1	ND	ug/L	0.50	0.15	
sec-Butylbenzene	B020600-BLK1	ND	ug/L	0.50	0.13	
tert-Butylbenzene	B020600-BLK1	ND	ug/L	0.50	0.18	
Carbon tetrachloride	B020600-BLK1	ND	ug/L	0.50	0.17	
Chlorobenzene	B020600-BLK1	ND	ug/L	0.50	0.14	
Chloroethane	B020600-BLK1	ND	ug/L	0.50	0.17	
Chloroform	B020600-BLK1	ND	ug/L	0.50	0.14	
Chloromethane	B020600-BLK1	ND	ug/L	0.50	0.11	
2-Chlorotoluene	B020600-BLK1	ND	ug/L	0.50	0.14	
4-Chlorotoluene	B020600-BLK1	ND	ug/L	0.50	0.093	
Dibromochloromethane	B020600-BLK1	ND	ug/L	0.50	0.22	
1,2-Dibromo-3-chloropropane	B020600-BLK1	ND	ug/L	1.0	0.89	
1,2-Dibromoethane	B020600-BLK1	ND	ug/L	0.50	0.22	
Dibromomethane	B020600-BLK1	ND	ug/L	0.50	0.23	
1,2-Dichlorobenzene	B020600-BLK1	ND	ug/L	0.50	0.21	
1,3-Dichlorobenzene	B020600-BLK1	ND	ug/L	0.50	0.16	
1,4-Dichlorobenzene	B020600-BLK1	ND	ug/L	0.50	0.15	
Dichlorodifluoromethane	B020600-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethane	B020600-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloroethane	B020600-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	B020600-BLK1	ND	ug/L	0.50	0.27	
cis-1,2-Dichloroethene	B020600-BLK1	ND	ug/L	0.50	0.27	
trans-1,2-Dichloroethene	B020600-BLK1	ND	ug/L	0.50	0.17	
1,2-Dichloropropane	B020600-BLK1	ND	ug/L	0.50	0.15	
1,3-Dichloropropane	B020600-BLK1	ND	ug/L	0.50	0.13	
2,2-Dichloropropane	B020600-BLK1	ND	ug/L	0.50	0.18	
1,1-Dichloropropene	B020600-BLK1	ND	ug/L	0.50	0.19	
cis-1,3-Dichloropropene	B020600-BLK1	ND	ug/L	0.50	0.14	

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Powell, OH 43065

**Reported:** 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020600</b>						
trans-1,3-Dichloropropene	B020600-BLK1	ND	ug/L	0.50	0.13	
Ethylbenzene	B020600-BLK1	ND	ug/L	0.50	0.15	
Hexachlorobutadiene	B020600-BLK1	ND	ug/L	0.50	0.20	
Isopropylbenzene	B020600-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	B020600-BLK1	ND	ug/L	0.50	0.14	
Methylene chloride	B020600-BLK1	ND	ug/L	0.50	0.21	
Methyl t-butyl ether	B020600-BLK1	ND	ug/L	0.50	0.14	
Naphthalene	B020600-BLK1	ND	ug/L	0.50	0.16	
n-Propylbenzene	B020600-BLK1	ND	ug/L	0.50	0.12	
Styrene	B020600-BLK1	ND	ug/L	0.50	0.12	
1,1,1,2-Tetrachloroethane	B020600-BLK1	ND	ug/L	0.50	0.21	
1,1,1,2,2-Tetrachloroethane	B020600-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	B020600-BLK1	ND	ug/L	0.50	0.23	
Toluene	B020600-BLK1	ND	ug/L	0.50	0.17	
1,2,3-Trichlorobenzene	B020600-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trichlorobenzene	B020600-BLK1	ND	ug/L	0.50	0.15	
1,1,1-Trichloroethane	B020600-BLK1	ND	ug/L	0.50	0.21	
1,1,2-Trichloroethane	B020600-BLK1	ND	ug/L	0.50	0.21	
Trichloroethene	B020600-BLK1	ND	ug/L	0.50	0.19	
Trichlorofluoromethane	B020600-BLK1	ND	ug/L	0.50	0.14	
1,2,3-Trichloropropane	B020600-BLK1	ND	ug/L	1.0	0.78	
1,1,2-Trichloro-1,2,2-trifluoroethane	B020600-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trimethylbenzene	B020600-BLK1	ND	ug/L	0.50	0.17	
1,3,5-Trimethylbenzene	B020600-BLK1	ND	ug/L	0.50	0.14	
Vinyl chloride	B020600-BLK1	ND	ug/L	0.50	0.18	
Acetone	B020600-BLK1	ND	ug/L	10	6.6	
Acrylonitrile	B020600-BLK1	ND	ug/L	5.0	1.5	
Allyl chloride	B020600-BLK1	ND	ug/L	5.0	0.47	
t-Amyl Methyl ether	B020600-BLK1	ND	ug/L	0.50	0.19	
t-Butyl alcohol	B020600-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	B020600-BLK1	ND	ug/L	1.0	0.48	
trans-1,4-Dichloro-2-butene	B020600-BLK1	ND	ug/L	5.0	1.8	
Diethyl ether	B020600-BLK1	ND	ug/L	2.0	0.33	
Ethyl methacrylate	B020600-BLK1	ND	ug/L	4.0	1.3	

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Powell, OH 43065

Reported: 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
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**QC Batch ID: B020600**

Ethyl t-butyl ether	B020600-BLK1	ND	ug/L	0.50	0.32	
Hexachloroethane	B020600-BLK1	ND	ug/L	0.50	0.11	
2-Hexanone	B020600-BLK1	ND	ug/L	10	5.0	
Methacrylonitrile	B020600-BLK1	ND	ug/L	10	2.3	
Methyl ethyl ketone	B020600-BLK1	ND	ug/L	10	3.3	
Methyl iodide	B020600-BLK1	ND	ug/L	2.0	1.1	
Methyl isobutyl ketone	B020600-BLK1	ND	ug/L	10	2.4	
Methyl methacrylate	B020600-BLK1	ND	ug/L	5.0	1.2	
Pentachloroethane	B020600-BLK1	ND	ug/L	2.0	0.63	
Propionitrile	B020600-BLK1	ND	ug/L	20	6.2	
Tetrahydrofuran	B020600-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	B020600-BLK1	ND	ug/L	0.50	0.34	
o-Xylene	B020600-BLK1	ND	ug/L	0.50	0.13	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>B020600-BLK1</b>	<b>90.3</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>B020600-BLK1</b>	<b>99.4</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>B020600-BLK1</b>	<b>93.0</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		

**QC Batch ID: B020924**

Benzene	B020924-BLK1	ND	ug/L	0.50	0.11	
Bromobenzene	B020924-BLK1	ND	ug/L	0.50	0.15	
Bromochloromethane	B020924-BLK1	ND	ug/L	0.50	0.27	
Bromodichloromethane	B020924-BLK1	ND	ug/L	0.50	0.20	
Bromoform	B020924-BLK1	ND	ug/L	0.50	0.46	
Bromomethane	B020924-BLK1	ND	ug/L	0.50	0.20	
n-Butylbenzene	B020924-BLK1	ND	ug/L	0.50	0.15	
sec-Butylbenzene	B020924-BLK1	ND	ug/L	0.50	0.13	
tert-Butylbenzene	B020924-BLK1	ND	ug/L	0.50	0.18	
Carbon tetrachloride	B020924-BLK1	ND	ug/L	0.50	0.17	
Chlorobenzene	B020924-BLK1	ND	ug/L	0.50	0.14	
Chloroethane	B020924-BLK1	ND	ug/L	0.50	0.17	
Chloroform	B020924-BLK1	ND	ug/L	0.50	0.14	
Chloromethane	B020924-BLK1	ND	ug/L	0.50	0.11	
2-Chlorotoluene	B020924-BLK1	ND	ug/L	0.50	0.14	
4-Chlorotoluene	B020924-BLK1	ND	ug/L	0.50	0.093	

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**Reported:** 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020924</b>						
Dibromochloromethane	B020924-BLK1	ND	ug/L	0.50	0.22	
1,2-Dibromo-3-chloropropane	B020924-BLK1	ND	ug/L	1.0	0.89	
1,2-Dibromoethane	B020924-BLK1	ND	ug/L	0.50	0.22	
Dibromomethane	B020924-BLK1	ND	ug/L	0.50	0.23	
1,2-Dichlorobenzene	B020924-BLK1	ND	ug/L	0.50	0.21	
1,3-Dichlorobenzene	B020924-BLK1	ND	ug/L	0.50	0.16	
1,4-Dichlorobenzene	B020924-BLK1	ND	ug/L	0.50	0.15	
Dichlorodifluoromethane	B020924-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethane	B020924-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloroethane	B020924-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	B020924-BLK1	ND	ug/L	0.50	0.27	
cis-1,2-Dichloroethene	B020924-BLK1	ND	ug/L	0.50	0.27	
trans-1,2-Dichloroethene	B020924-BLK1	ND	ug/L	0.50	0.17	
1,2-Dichloropropane	B020924-BLK1	ND	ug/L	0.50	0.15	
1,3-Dichloropropane	B020924-BLK1	ND	ug/L	0.50	0.13	
2,2-Dichloropropane	B020924-BLK1	ND	ug/L	0.50	0.18	
1,1-Dichloropropene	B020924-BLK1	ND	ug/L	0.50	0.19	
cis-1,3-Dichloropropene	B020924-BLK1	ND	ug/L	0.50	0.14	
trans-1,3-Dichloropropene	B020924-BLK1	ND	ug/L	0.50	0.13	
Ethylbenzene	B020924-BLK1	ND	ug/L	0.50	0.15	
Hexachlorobutadiene	B020924-BLK1	ND	ug/L	0.50	0.20	
Isopropylbenzene	B020924-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	B020924-BLK1	ND	ug/L	0.50	0.14	
Methylene chloride	B020924-BLK1	ND	ug/L	0.50	0.21	
Methyl t-butyl ether	B020924-BLK1	ND	ug/L	0.50	0.14	
Naphthalene	B020924-BLK1	ND	ug/L	0.50	0.16	
n-Propylbenzene	B020924-BLK1	ND	ug/L	0.50	0.12	
Styrene	B020924-BLK1	ND	ug/L	0.50	0.12	
1,1,1,2-Tetrachloroethane	B020924-BLK1	ND	ug/L	0.50	0.21	
1,1,1,2,2-Tetrachloroethane	B020924-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	B020924-BLK1	ND	ug/L	0.50	0.23	
Toluene	B020924-BLK1	ND	ug/L	0.50	0.17	
1,2,3-Trichlorobenzene	B020924-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trichlorobenzene	B020924-BLK1	ND	ug/L	0.50	0.15	

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020924</b>						
1,1,1-Trichloroethane	B020924-BLK1	ND	ug/L	0.50	0.21	
1,1,2-Trichloroethane	B020924-BLK1	ND	ug/L	0.50	0.21	
Trichloroethene	B020924-BLK1	ND	ug/L	0.50	0.19	
Trichlorofluoromethane	B020924-BLK1	ND	ug/L	0.50	0.14	
1,2,3-Trichloropropane	B020924-BLK1	ND	ug/L	1.0	0.78	
1,1,2-Trichloro-1,2,2-trifluoroethane	B020924-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trimethylbenzene	B020924-BLK1	ND	ug/L	0.50	0.17	
1,3,5-Trimethylbenzene	B020924-BLK1	ND	ug/L	0.50	0.14	
Vinyl chloride	B020924-BLK1	ND	ug/L	0.50	0.18	
Acetone	B020924-BLK1	ND	ug/L	10	6.6	
Acrylonitrile	B020924-BLK1	ND	ug/L	5.0	1.5	
Allyl chloride	B020924-BLK1	ND	ug/L	5.0	0.47	
t-Amyl Methyl ether	B020924-BLK1	ND	ug/L	0.50	0.19	
t-Butyl alcohol	B020924-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	B020924-BLK1	ND	ug/L	1.0	0.48	
trans-1,4-Dichloro-2-butene	B020924-BLK1	ND	ug/L	5.0	1.8	
Diethyl ether	B020924-BLK1	ND	ug/L	2.0	0.33	
Ethyl methacrylate	B020924-BLK1	ND	ug/L	4.0	1.3	
Ethyl t-butyl ether	B020924-BLK1	ND	ug/L	0.50	0.32	
Hexachloroethane	B020924-BLK1	ND	ug/L	0.50	0.11	
2-Hexanone	B020924-BLK1	ND	ug/L	10	5.0	
Methacrylonitrile	B020924-BLK1	ND	ug/L	10	2.3	
Methyl ethyl ketone	B020924-BLK1	ND	ug/L	10	3.3	
Methyl iodide	B020924-BLK1	ND	ug/L	2.0	1.1	
Methyl isobutyl ketone	B020924-BLK1	ND	ug/L	10	2.4	
Methyl methacrylate	B020924-BLK1	ND	ug/L	5.0	1.2	
Pentachloroethane	B020924-BLK1	ND	ug/L	2.0	0.63	
Propionitrile	B020924-BLK1	ND	ug/L	20	6.2	
Tetrahydrofuran	B020924-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	B020924-BLK1	ND	ug/L	0.50	0.34	
o-Xylene	B020924-BLK1	ND	ug/L	0.50	0.13	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>B020924-BLK1</b>	<b>91.6</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>B020924-BLK1</b>	<b>99.0</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>B020924-BLK1</b>	<b>98.5</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B020600</b>										
Benzene	B020600-BS1	LCS	24.870	25.000	ug/L	99.5		70 - 130		
Bromodichloromethane	B020600-BS1	LCS	23.970	25.000	ug/L	95.9		70 - 130		
Chlorobenzene	B020600-BS1	LCS	23.960	25.000	ug/L	95.8		70 - 130		
Chloroethane	B020600-BS1	LCS	25.170	25.000	ug/L	101		70 - 130		
1,4-Dichlorobenzene	B020600-BS1	LCS	21.160	25.000	ug/L	84.6		70 - 130		
1,1-Dichloroethane	B020600-BS1	LCS	24.930	25.000	ug/L	99.7		70 - 130		
1,1-Dichloroethene	B020600-BS1	LCS	25.050	25.000	ug/L	100		70 - 130		
Toluene	B020600-BS1	LCS	24.340	25.000	ug/L	97.4		70 - 130		
Trichloroethene	B020600-BS1	LCS	24.560	25.000	ug/L	98.2		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B020600-BS1	LCS	9.1000	10.000	ug/L	91.0		75 - 125		
Toluene-d8 (Surrogate)	B020600-BS1	LCS	9.9100	10.000	ug/L	99.1		80 - 120		
4-Bromofluorobenzene (Surrogate)	B020600-BS1	LCS	8.4600	10.000	ug/L	84.6		80 - 120		

<b>QC Batch ID: B020924</b>										
Benzene	B020924-BS1	LCS	28.350	25.000	ug/L	113		70 - 130		
Bromodichloromethane	B020924-BS1	LCS	26.450	25.000	ug/L	106		70 - 130		
Chlorobenzene	B020924-BS1	LCS	24.980	25.000	ug/L	99.9		70 - 130		
Chloroethane	B020924-BS1	LCS	28.870	25.000	ug/L	115		70 - 130		
1,4-Dichlorobenzene	B020924-BS1	LCS	25.050	25.000	ug/L	100		70 - 130		
1,1-Dichloroethane	B020924-BS1	LCS	28.670	25.000	ug/L	115		70 - 130		
1,1-Dichloroethene	B020924-BS1	LCS	28.530	25.000	ug/L	114		70 - 130		
Toluene	B020924-BS1	LCS	26.470	25.000	ug/L	106		70 - 130		
Trichloroethene	B020924-BS1	LCS	27.340	25.000	ug/L	109		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B020924-BS1	LCS	10.410	10.000	ug/L	104		75 - 125		
Toluene-d8 (Surrogate)	B020924-BS1	LCS	9.9600	10.000	ug/L	99.6		80 - 120		
4-Bromofluorobenzene (Surrogate)	B020924-BS1	LCS	9.4400	10.000	ug/L	94.4		80 - 120		

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Tidewater Inc.
3761 Attucks Drive
Powell, OH 43065

Reported: 08/21/2018 8:50
Project: JPL- GW Monitoring Wells
Project Number: 3Q18
Project Manager: David Conner

Volatile Organic Analysis (EPA Method 524.2)

Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Source Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Percent Recovery, Lab Quals. Includes QC Batch ID: B020600 and Used client sample: Y - Description: MW-17-4, 07/30/2018 12:00.

Table with columns: Constituent, Source Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Percent Recovery, Lab Quals. Includes QC Batch ID: B020924 and Used client sample: Y - Description: MW-5, 08/02/2018 07:22.

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B020924</b>		Used client sample: Y - Description: MW-5, 08/02/2018 07:22								
1,1-Dichloroethene	MS	1823982-02	ND	28.140	25.000	ug/L		113		70 - 130
	MSD	1823982-02	ND	28.050	25.000	ug/L	0.3	112	20	70 - 130
Toluene	MS	1823982-02	ND	26.420	25.000	ug/L		106		70 - 130
	MSD	1823982-02	ND	26.060	25.000	ug/L	1.4	104	20	70 - 130
Trichloroethene	MS	1823982-02	ND	26.990	25.000	ug/L		108		70 - 130
	MSD	1823982-02	ND	25.930	25.000	ug/L	4.0	104	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1823982-02	ND	9.9600	10.000	ug/L		99.6		75 - 125
	MSD	1823982-02	ND	9.9600	10.000	ug/L	0	99.6		75 - 125
Toluene-d8 (Surrogate)	MS	1823982-02	ND	9.8300	10.000	ug/L		98.3		80 - 120
	MSD	1823982-02	ND	9.8500	10.000	ug/L	0.2	98.5		80 - 120
4-Bromofluorobenzene (Surrogate)	MS	1823982-02	ND	9.8900	10.000	ug/L		98.9		80 - 120
	MSD	1823982-02	ND	10.280	10.000	ug/L	3.9	103		80 - 120

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020600</b>						
Chloroacetonitrile	B020600-BLK1	0	ug/L			
1-Chlorobutane	B020600-BLK1	0	ug/L			
1,1-Dichloropropanone	B020600-BLK1	0	ug/L			
Methyl acrylate	B020600-BLK1	0	ug/L			
Nitrobenzene	B020600-BLK1	0	ug/L			
2-Nitropropane	B020600-BLK1	0	ug/L			
<b>QC Batch ID: B020924</b>						
Chloroacetonitrile	B020924-BLK1	0	ug/L			
1-Chlorobutane	B020924-BLK1	0	ug/L			
1,1-Dichloropropanone	B020924-BLK1	0	ug/L			
Methyl acrylate	B020924-BLK1	0	ug/L			
Nitrobenzene	B020924-BLK1	0	ug/L			
2-Nitropropane	B020924-BLK1	0	ug/L			

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Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020364</b>						
Chloride	B020364-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B020364-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B020364-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B020612</b>						
ortho-Phosphate as P	B020612-BLK1	ND	mg/L	0.050	0.017	
<b>QC Batch ID: B020630</b>						
Nitrite as N	B020630-BLK1	0.019851	mg/L	0.050	0.010	J
<b>QC Batch ID: B021778</b>						
Perchlorate	B021778-BLK1	ND	ug/L	4.0	0.58	

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Powell, OH 43065

**Reported:** 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B020364</b>										
Chloride	B020364-BS1	LCS	49.609	50.000	mg/L	99.2		90 - 110		
Nitrate as N	B020364-BS1	LCS	4.8480	5.0000	mg/L	97.0		90 - 110		
Sulfate	B020364-BS1	LCS	98.942	100.00	mg/L	98.9		90 - 110		
<b>QC Batch ID: B020612</b>										
ortho-Phosphate as P	B020612-BS1	LCS	0.20258	0.20000	mg/L	101		90 - 110		
<b>QC Batch ID: B020630</b>										
Nitrite as N	B020630-BS1	LCS	0.49787	0.50000	mg/L	99.6		90 - 110		
<b>QC Batch ID: B021778</b>										
Perchlorate	B021778-BS1	LCS	10.900	10.000	ug/L	109		85 - 115		

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Powell, OH 43065

Reported: 08/21/2018 8:50
Project: JPL- GW Monitoring Wells
Project Number: 3Q18
Project Manager: David Conner

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Control Limits Percent Recovery, Lab Quals. Includes QC Batch IDs B020364, B020612, B020630, and B021778.

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Tidewater Inc.  
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Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020480</b>						
Total Recoverable Chromium	B020480-BLK1	2.3170	ug/L	3.0	0.50	J
<b>QC Batch ID: B020536</b>						
Total Recoverable Chromium	B020536-BLK1	ND	ug/L	3.0	0.50	
<b>QC Batch ID: B020580</b>						
Hexavalent Chromium	B020580-BLK1	ND	mg/L	0.0020	0.00070	
<b>QC Batch ID: B020617</b>						
Hexavalent Chromium	B020617-BLK1	ND	mg/L	0.0020	0.00070	

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Metals Analysis

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab	Quals
								Percent Recovery	RPD		
<b>QC Batch ID: B020480</b>											
Total Recoverable Chromium	B020480-BS1	LCS	43.788	40.000	ug/L	109		85	115		
<b>QC Batch ID: B020536</b>											
Total Recoverable Chromium	B020536-BS1	LCS	44.936	40.000	ug/L	112		85	115		
<b>QC Batch ID: B020580</b>											
Hexavalent Chromium	B020580-BS1	LCS	0.050279	0.050000	mg/L	101		85	115		
<b>QC Batch ID: B020617</b>											
Hexavalent Chromium	B020617-BS1	LCS	0.050682	0.050000	mg/L	101		85	115		

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Tidewater Inc.
3761 Attucks Drive
Powell, OH 43065

Reported: 08/21/2018 8:50
Project: JPL- GW Monitoring Wells
Project Number: 3Q18
Project Manager: David Conner

Metals Analysis

Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Control Limits Percent Recovery, Lab Quals. Includes QC Batch IDs B020480, B020536, B020580, and B020617.

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/21/2018 8:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.



Date of Report: 08/23/2018

David Conner

Tidewater Inc.

3761 Attucks Drive

Powell, OH 43065

Client Project: 3Q18

BCL Project: JPL- GW Monitoring Wells

BCL Work Order: 1823695

Invoice ID:

Enclosed are the results of analyses for samples received by the laboratory on 7/31/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Table of Contents

### Sample Information

Chain of Custody and Cooler Receipt form.....	4
Laboratory / Client Sample Cross Reference.....	6

### Sample Results

<b>1823695-01 - TB-6-073118</b>	
Volatile Organic Analysis (EPA Method 524.2).....	10
Volatile Organic Analysis (EPA Method 524.2) TICs.....	13
<b>1823695-02 - MW-23-4</b>	
Metals Analysis.....	14
<b>1823695-03 - MW-23-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	15
Volatile Organic Analysis (EPA Method 524.2) TICs.....	18
Water Analysis (General Chemistry).....	19
Metals Analysis.....	20
<b>1823695-04 - MW-23-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	21
Volatile Organic Analysis (EPA Method 524.2) TICs.....	24
Water Analysis (General Chemistry).....	25
Metals Analysis.....	26
<b>1823695-05 - MW-23-1</b>	
Volatile Organic Analysis (EPA Method 524.2).....	27
Volatile Organic Analysis (EPA Method 524.2) TICs.....	30
Water Analysis (General Chemistry).....	31
Metals Analysis.....	32
<b>1823695-06 - Dup-4-3Q18</b>	
Volatile Organic Analysis (EPA Method 524.2).....	33
Volatile Organic Analysis (EPA Method 524.2) TICs.....	36
Water Analysis (General Chemistry).....	37
Metals Analysis.....	38
<b>1823695-07 - MW-4-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	39
Volatile Organic Analysis (EPA Method 524.2) TICs.....	42
Water Analysis (General Chemistry).....	43
Metals Analysis.....	44
<b>1823695-08 - MW-4-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	45
Volatile Organic Analysis (EPA Method 524.2) TICs.....	48
Water Analysis (General Chemistry).....	49
Metals Analysis.....	50
<b>1823695-09 - MW-4-1</b>	
Volatile Organic Analysis (EPA Method 524.2).....	51
Volatile Organic Analysis (EPA Method 524.2) TICs.....	54
Water Analysis (General Chemistry).....	55
Metals Analysis.....	56
<b>1823695-10 - EB-6-073118</b>	
Volatile Organic Analysis (EPA Method 524.2).....	57
Volatile Organic Analysis (EPA Method 524.2) TICs.....	60
Water Analysis (General Chemistry).....	61
Metals Analysis.....	62

### Quality Control Reports

#### Volatile Organic Analysis (EPA Method 524.2)

Method Blank Analysis.....	63
Laboratory Control Sample.....	66
Precision and Accuracy.....	67

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## Table of Contents

<b>Volatile Organic Analysis (EPA Method 524.2) TICs</b>	
Method Blank Analysis.....	68
<b>Water Analysis (General Chemistry)</b>	
Method Blank Analysis.....	69
Laboratory Control Sample.....	70
Precision and Accuracy.....	71
<b>Metals Analysis</b>	
Method Blank Analysis.....	72
Laboratory Control Sample.....	73
Precision and Accuracy.....	74
<b>Notes</b>	
Notes and Definitions.....	75





Chain of Custody Form



Report To: Tidewater, Inc. Client: David Corner  
 Attn: David Corner  
 Street Address: 3761 Altucks Drive  
 City: Powell State: OH Zip: 43065  
 Phone: 626-208-5715 Fax: 614-792-2887  
 Email Address: david.corner@tidewater.net  
 Submission #: 3018  
 Sampler(s): Blaine Tech  
 Project Code: 3018

Project Description: JPL-GW Monitoring

Analysis Requested:  Hexavalent Cr (719b)  Nitrite (353.2)  Orthophosphate (365.1)  Chloride, Nitrate, Sulfate (300)  Perchlorate (EPA 314.0)  Total Cr (200.8)  VOCs EPA 524.2

Client: Tidewater, Inc.  
 Attn: David Corner  
 Address: 3761 Altucks Drive  
 City: Powell State: OH Zip: 43065  
 Are there any tests with holding times? less than or equal to 48 hours?  
 Yes  No  
 \*Standard Turnaround = 10

Sample #	Sample Description	Date	Time	Matrix*	Notes
-1	TB-6-073118	07/31/18	0700	GW	
-2	MW-23-4	0715	0715	GW	SHORT HOLDING TIME
-3	MW-23-3	0710	0710	GW	NO <sub>2</sub> NO <sub>3</sub> OP SS
-4	MW-23-2	0850	0850	GW	DO O <sub>2</sub> BOD MBAS COT
-5	MW-23-1	0930	0930	GW	
-6	DUP-4-3A18	0940	0940	GW	
-7	MW-4-3	1130	1130	GW	
-8	MW-4-2	1215	1215	GW	
-9	MW-4-1	1245	1245	GW	
-10	EB-6-073118	1310	1310	GW	CHK BY DISTRIBUTION SUB-OUT

Matrix Types: S = Soil SL = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other

Turnaround # of working days:  24 Hr Rush  48 Hr Rush  3-5 Day Rush  Normal (10 - Days)

Lab TAT Approval: \_\_\_\_\_ \*Additional Charges May Apply

Comments: PLEASE NOTATE WHICH SAMPLES TO USE FOR QC (MS/MSD) 90% Level III and 10% Level IV data validation required; Level IV Notated on C of C NOTE: ALL ANALYSIS REQUIRED TO HAVE CALIBRATION SUMMARIES (Inform QC)

Cost Center: 1. Requisitioned By: [Signature] Date: 07/31/18 Time: 1410  
 2. Requisitioned By: [Signature] Date: 7-31-18 Time: 11:30  
 3. Requisitioned By: [Signature] Date: 7-31-18 Time: 1800

Global ID: 18-23695

BC Laboratories, Inc. 4100 Atlas Court - Bakersfield CA 93308 (661) 327-4911 Fax: (661) 327-1918 www.bclabs.com

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 18-231095

**SHIPPING INFORMATION**  
 Fed Ex  UPS  Ontrac  Hand Delivery   
 BC Lab Field Service  Other  (Specify) \_\_\_\_\_

**SHIPPING CONTAINER**  
 Ice Chest  None  Box   
 Other  (Specify) \_\_\_\_\_

**FREE LIQUID**  
 YES  NO   
 W / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO  
 Emissivity: 0.98 Container: PE Thermometer ID: 208 Date/Time: 7/21/18 1820  
 Temperature: (A) 1.5 °C / (C) 1.0 °C Analyst Init: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES		A	D	D	D	D	D	D	D	D
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz		B	E	E	E	E	E	E	E	E
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK	A									
40ml VOA VIAL		APZ	APZ	APZ	APZ	APZ	APZ	APZ	APZ	APZ
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/508/508D										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 3015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz IAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: [Signature] Date/Time: 7/21/18 1849

1 = Actual / C = Corrected

Rev 21 05/23/2016



Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1823695-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> TB-6-073118 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/31/2018 18:20 <b>Sampling Date:</b> 07/31/2018 07:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): TB-6-073118 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
-------------------	---	---

<b>1823695-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-23-4 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/31/2018 18:20 <b>Sampling Date:</b> 07/31/2018 07:45 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-23-4 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
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<b>1823695-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-23-3 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/31/2018 18:20 <b>Sampling Date:</b> 07/31/2018 08:10 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-23-3 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1823695-04</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-23-2 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/31/2018 18:20 <b>Sampling Date:</b> 07/31/2018 08:50 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-23-2 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
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<b>1823695-05</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-23-1 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/31/2018 18:20 <b>Sampling Date:</b> 07/31/2018 09:30 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-23-1 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
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<b>1823695-06</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> Dup-4-3Q18 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/31/2018 18:20 <b>Sampling Date:</b> 07/31/2018 09:40 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): Dup-4-3Q18 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1823695-07</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-4-3 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/31/2018 18:20 <b>Sampling Date:</b> 07/31/2018 11:30 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-4-3 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
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<b>1823695-08</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-4-2 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/31/2018 18:20 <b>Sampling Date:</b> 07/31/2018 12:15 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-4-2 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

<b>1823695-09</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-4-1 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 07/31/2018 18:20 <b>Sampling Date:</b> 07/31/2018 12:45 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-4-1 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

1823695-10

**COC Number:** ---  
**Project Number:** JPL-GW Monitoring  
**Sampling Location:** ---  
**Sampling Point:** EB-6-073118  
**Sampled By:** Think Hoang of BTST

**Receive Date:** 07/31/2018 18:20  
**Sampling Date:** 07/31/2018 13:10  
**Sample Depth:** ---  
**Lab Matrix:** Water  
**Sample Type:** Groundwater  
Delivery Work Order:  
Global ID: 0000000000  
Location ID (FieldPoint): EB-6-073118  
Matrix: WG  
Sample QC Type (SACode): CS  
Cooler ID:

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/23/2018 17:58  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-01	<b>Client Sample Name:</b> JPL-GW Monitoring, TB-6-073118, 7/31/2018 7:00:00AM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/23/2018 17:58  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-01	<b>Client Sample Name:</b> JPL-GW Monitoring, TB-6-073118, 7/31/2018 7:00:00AM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-01	<b>Client Sample Name:</b> JPL-GW Monitoring, TB-6-073118, 7/31/2018 7:00:00AM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	93.9	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 11:58	MGC	MS-V5	1	B020600

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823695-01	<b>Client Sample Name:</b> JPL-GW Monitoring, TB-6-073118, 7/31/2018 7:00:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 11:58	MGC	MS-V5	1	B020600

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**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823695-02	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-23-4, 7/31/2018 7:45:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0031	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>3.4</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>ND</b>		<b>2</b>

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	07/31/18 19:44	07/31/18 19:44	SAV	KONE-1	1	B020618
2	EPA-200.8	08/02/18 09:00	08/07/18 22:46	ARD	PE-EL2	1	B020537

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Reported: 08/23/2018 17:58  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-03	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-23-3, 7/31/2018 8:10:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Powell, OH 43065

Reported: 08/23/2018 17:58  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-03	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-23-3, 7/31/2018 8:10:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/23/2018 17:58  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-03	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-23-3, 7/31/2018 8:10:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	94.8	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 12:21	MGC	MS-V5	1	B020600

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**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823695-03	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-23-3, 7/31/2018 8:10:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 12:21	MGC	MS-V5	1	B020600

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**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823695-03	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-23-3, 7/31/2018 8:10:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	2.0	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/16/18 18:00	08/17/18 03:32	EMW	IC6	1	B021794

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**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823695-03	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-23-3, 7/31/2018 8:10:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0033	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>3.6</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>ND</b>		<b>2</b>

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	07/31/18 19:44	07/31/18 20:09	SAV	KONE-1	1	B020618
2	EPA-200.8	08/02/18 09:00	08/07/18 23:08	ARD	PE-EL2	1	B020537

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Reported: 08/23/2018 17:58  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-04	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-23-2, 7/31/2018 8:50:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.36</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Powell, OH 43065

Reported: 08/23/2018 17:58  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-04	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-23-2, 7/31/2018 8:50:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.26</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.83</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-04	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-23-2, 7/31/2018 8:50:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.0	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	104	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	99.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 12:44	MGC	MS-V5	1	B020600

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Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823695-04	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-23-2, 7/31/2018 8:50:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 12:44	MGC	MS-V5	1	B020600

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**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823695-04	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-23-2, 7/31/2018 8:50:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	3.6	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/16/18 18:00	08/17/18 14:54	EMW	IC6	1	B021794

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**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823695-04	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-23-2, 7/31/2018 8:50:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.00085	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	1.6	ug/L	3.0	0.50	EPA-200.8	ND	J	2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/31/18 19:44	07/31/18 19:44		SAV	KONE-1	1	B020618
2	EPA-200.8	08/02/18 09:00	08/07/18 23:22		ARD	PE-EL2	1	B020537

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Reported: 08/23/2018 17:58  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-05	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-23-1, 7/31/2018 9:30:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.38</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/23/2018 17:58  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-05	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-23-1, 7/31/2018 9:30:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>1.3</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-05	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-23-1, 7/31/2018 9:30:00AM, Thinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	88.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	103	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 13:07	MGC	MS-V5	1	B020600

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Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823695-05	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-23-1, 7/31/2018 9:30:00AM, Thinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 13:07	MGC	MS-V5	1	B020600

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**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823695-05	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-23-1, 7/31/2018 9:30:00AM, Thinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	2.2	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/16/18 18:00	08/17/18 04:49	EMW	IC6	1	B021794

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823695-05	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-23-1, 7/31/2018 9:30:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.3</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	07/31/18 19:44	07/31/18 19:44	SAV	KONE-1	1	B020618
2	EPA-200.8	08/02/18 09:00	08/07/18 23:26	ARD	PE-EL2	1	B020537

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Reported: 08/23/2018 17:58  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-06	<b>Client Sample Name:</b> JPL-GW Monitoring, Dup-4-3Q18, 7/31/2018 9:40:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.37</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Powell, OH 43065

Reported: 08/23/2018 17:58  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 1823695-06		Client Sample Name: JPL-GW Monitoring, Dup-4-3Q18, 7/31/2018 9:40:00AM, Thinh Hoang						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>1.1</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-06	<b>Client Sample Name:</b> JPL-GW Monitoring, Dup-4-3Q18, 7/31/2018 9:40:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.1	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 13:30	MGC	MS-V5	1	B020600

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Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823695-06	<b>Client Sample Name:</b> JPL-GW Monitoring, Dup-4-3Q18, 7/31/2018 9:40:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 13:30	MGC	MS-V5	1	B020600

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Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823695-06	<b>Client Sample Name:</b> JPL-GW Monitoring, Dup-4-3Q18, 7/31/2018 9:40:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	2.5	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/16/18 18:00	08/17/18 15:10	EMW	IC6	1	B021794

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Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823695-06	<b>Client Sample Name:</b> JPL-GW Monitoring, Dup-4-3Q18, 7/31/2018 9:40:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0011	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	1.5	ug/L	3.0	0.50	EPA-200.8	ND	J	2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/31/18 19:44	07/31/18 19:44		SAV	KONE-1	1	B020618
2	EPA-200.8	08/02/18 09:00	08/07/18 23:29		ARD	PE-EL2	1	B020537

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Reported: 08/23/2018 17:58  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-07	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-4-3, 7/31/2018 11:30:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 08/23/2018 17:58  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-07	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-4-3, 7/31/2018 11:30:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.55</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-07	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-4-3, 7/31/2018 11:30:00AM, Think Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	95.7	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 13:53	MGC	MS-V5	1	B020600

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823695-07	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-4-3, 7/31/2018 11:30:00AM, Thinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 13:53	MGC	MS-V5	1	B020600

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Tidewater Inc.  
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Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823695-07	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-4-3, 7/31/2018 11:30:00AM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/16/18 18:00	08/17/18 05:51	EMW	IC6	1	B021794

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**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823695-07	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-4-3, 7/31/2018 11:30:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>0.55</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND	J	2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/31/18 19:44	07/31/18 19:48		SAV	KONE-1	1	B020618
2	EPA-200.8	08/02/18 09:00	08/07/18 23:33		ARD	PE-EL2	1	B020537

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Reported: 08/23/2018 17:58  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-08	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-4-2, 7/31/2018 12:15:00PM, Thanh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.35</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/23/2018 17:58  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-08	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-4-2, 7/31/2018 12:15:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.99</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-08	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-4-2, 7/31/2018 12:15:00PM, Thanh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	93.6	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	98.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 16:58	MGC	MS-V5	1	B020600

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Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823695-08	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-4-2, 7/31/2018 12:15:00PM, Thanh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 16:58	MGC	MS-V5	1	B020600

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**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823695-08	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-4-2, 7/31/2018 12:15:00PM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	4.7	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/16/18 18:00	08/17/18 21:25	SAV	IC6	1	B021794

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Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823695-08	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-4-2, 7/31/2018 12:15:00PM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.5</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND	J	2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/31/18 19:44	07/31/18 19:48		SAV	KONE-1	1	B020618
2	EPA-200.8	08/02/18 09:00	08/07/18 23:36		ARD	PE-EL2	1	B020537

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Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-09	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-4-1, 7/31/2018 12:45:00PM, Thanh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/23/2018 17:58  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-09	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-4-1, 7/31/2018 12:45:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/23/2018 17:58  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-09	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-4-1, 7/31/2018 12:45:00PM, Thanh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	95.9	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	96.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	87.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 17:21	MGC	MS-V5	1	B020600

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Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823695-09	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-4-1, 7/31/2018 12:45:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 17:21	MGC	MS-V5	1	B020600

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Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823695-09	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-4-1, 7/31/2018 12:45:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	2.1	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/16/18 18:00	08/17/18 06:21	EMW	IC6	1	B021794

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Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823695-09	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-4-1, 7/31/2018 12:45:00PM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/31/18 19:44	07/31/18 20:13		SAV	KONE-1	1	B020618
2	EPA-200.8	08/02/18 09:00	08/07/18 23:40		ARD	PE-EL2	1	B020537

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**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-10	<b>Client Sample Name:</b> JPL-GW Monitoring, EB-6-073118, 7/31/2018 1:10:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/23/2018 17:58  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-10	<b>Client Sample Name:</b> JPL-GW Monitoring, EB-6-073118, 7/31/2018 1:10:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/23/2018 17:58  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823695-10	<b>Client Sample Name:</b> JPL-GW Monitoring, EB-6-073118, 7/31/2018 1:10:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	94.6	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	91.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 17:44	MGC	MS-V5	1	B020600

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Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823695-10	<b>Client Sample Name:</b> JPL-GW Monitoring, EB-6-073118, 7/31/2018 1:10:00PM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 05:00	08/03/18 17:44	MGC	MS-V5	1	B020600

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**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823695-10	<b>Client Sample Name:</b> JPL-GW Monitoring, EB-6-073118, 7/31/2018 1:10:00PM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/16/18 18:00	08/17/18 06:37	EMW	IC6	1	B021794

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**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823695-10	<b>Client Sample Name:</b> JPL-GW Monitoring, EB-6-073118, 7/31/2018 1:10:00PM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	07/31/18 19:44	07/31/18 19:48		SAV	KONE-1	1	B020618
2	EPA-200.8	08/02/18 09:00	08/07/18 23:43		ARD	PE-EL2	1	B020537

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**Reported:** 08/23/2018 17:58  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020600</b>						
Benzene	B020600-BLK1	ND	ug/L	0.50	0.11	
Bromobenzene	B020600-BLK1	ND	ug/L	0.50	0.15	
Bromochloromethane	B020600-BLK1	ND	ug/L	0.50	0.27	
Bromodichloromethane	B020600-BLK1	ND	ug/L	0.50	0.20	
Bromoform	B020600-BLK1	ND	ug/L	0.50	0.46	
Bromomethane	B020600-BLK1	ND	ug/L	0.50	0.20	
n-Butylbenzene	B020600-BLK1	ND	ug/L	0.50	0.15	
sec-Butylbenzene	B020600-BLK1	ND	ug/L	0.50	0.13	
tert-Butylbenzene	B020600-BLK1	ND	ug/L	0.50	0.18	
Carbon tetrachloride	B020600-BLK1	ND	ug/L	0.50	0.17	
Chlorobenzene	B020600-BLK1	ND	ug/L	0.50	0.14	
Chloroethane	B020600-BLK1	ND	ug/L	0.50	0.17	
Chloroform	B020600-BLK1	ND	ug/L	0.50	0.14	
Chloromethane	B020600-BLK1	ND	ug/L	0.50	0.11	
2-Chlorotoluene	B020600-BLK1	ND	ug/L	0.50	0.14	
4-Chlorotoluene	B020600-BLK1	ND	ug/L	0.50	0.093	
Dibromochloromethane	B020600-BLK1	ND	ug/L	0.50	0.22	
1,2-Dibromo-3-chloropropane	B020600-BLK1	ND	ug/L	1.0	0.89	
1,2-Dibromoethane	B020600-BLK1	ND	ug/L	0.50	0.22	
Dibromomethane	B020600-BLK1	ND	ug/L	0.50	0.23	
1,2-Dichlorobenzene	B020600-BLK1	ND	ug/L	0.50	0.21	
1,3-Dichlorobenzene	B020600-BLK1	ND	ug/L	0.50	0.16	
1,4-Dichlorobenzene	B020600-BLK1	ND	ug/L	0.50	0.15	
Dichlorodifluoromethane	B020600-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethane	B020600-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloroethane	B020600-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	B020600-BLK1	ND	ug/L	0.50	0.27	
cis-1,2-Dichloroethene	B020600-BLK1	ND	ug/L	0.50	0.27	
trans-1,2-Dichloroethene	B020600-BLK1	ND	ug/L	0.50	0.17	
1,2-Dichloropropane	B020600-BLK1	ND	ug/L	0.50	0.15	
1,3-Dichloropropane	B020600-BLK1	ND	ug/L	0.50	0.13	
2,2-Dichloropropane	B020600-BLK1	ND	ug/L	0.50	0.18	
1,1-Dichloropropene	B020600-BLK1	ND	ug/L	0.50	0.19	
cis-1,3-Dichloropropene	B020600-BLK1	ND	ug/L	0.50	0.14	

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**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020600</b>						
trans-1,3-Dichloropropene	B020600-BLK1	ND	ug/L	0.50	0.13	
Ethylbenzene	B020600-BLK1	ND	ug/L	0.50	0.15	
Hexachlorobutadiene	B020600-BLK1	ND	ug/L	0.50	0.20	
Isopropylbenzene	B020600-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	B020600-BLK1	ND	ug/L	0.50	0.14	
Methylene chloride	B020600-BLK1	ND	ug/L	0.50	0.21	
Methyl t-butyl ether	B020600-BLK1	ND	ug/L	0.50	0.14	
Naphthalene	B020600-BLK1	ND	ug/L	0.50	0.16	
n-Propylbenzene	B020600-BLK1	ND	ug/L	0.50	0.12	
Styrene	B020600-BLK1	ND	ug/L	0.50	0.12	
1,1,1,2-Tetrachloroethane	B020600-BLK1	ND	ug/L	0.50	0.21	
1,1,1,2,2-Tetrachloroethane	B020600-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	B020600-BLK1	ND	ug/L	0.50	0.23	
Toluene	B020600-BLK1	ND	ug/L	0.50	0.17	
1,2,3-Trichlorobenzene	B020600-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trichlorobenzene	B020600-BLK1	ND	ug/L	0.50	0.15	
1,1,1-Trichloroethane	B020600-BLK1	ND	ug/L	0.50	0.21	
1,1,2-Trichloroethane	B020600-BLK1	ND	ug/L	0.50	0.21	
Trichloroethene	B020600-BLK1	ND	ug/L	0.50	0.19	
Trichlorofluoromethane	B020600-BLK1	ND	ug/L	0.50	0.14	
1,2,3-Trichloropropane	B020600-BLK1	ND	ug/L	1.0	0.78	
1,1,2-Trichloro-1,2,2-trifluoroethane	B020600-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trimethylbenzene	B020600-BLK1	ND	ug/L	0.50	0.17	
1,3,5-Trimethylbenzene	B020600-BLK1	ND	ug/L	0.50	0.14	
Vinyl chloride	B020600-BLK1	ND	ug/L	0.50	0.18	
Acetone	B020600-BLK1	ND	ug/L	10	6.6	
Acrylonitrile	B020600-BLK1	ND	ug/L	5.0	1.5	
Allyl chloride	B020600-BLK1	ND	ug/L	5.0	0.47	
t-Amyl Methyl ether	B020600-BLK1	ND	ug/L	0.50	0.19	
t-Butyl alcohol	B020600-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	B020600-BLK1	ND	ug/L	1.0	0.48	
trans-1,4-Dichloro-2-butene	B020600-BLK1	ND	ug/L	5.0	1.8	
Diethyl ether	B020600-BLK1	ND	ug/L	2.0	0.33	
Ethyl methacrylate	B020600-BLK1	ND	ug/L	4.0	1.3	

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Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020600</b>						
Ethyl t-butyl ether	B020600-BLK1	ND	ug/L	0.50	0.32	
Hexachloroethane	B020600-BLK1	ND	ug/L	0.50	0.11	
2-Hexanone	B020600-BLK1	ND	ug/L	10	5.0	
Methacrylonitrile	B020600-BLK1	ND	ug/L	10	2.3	
Methyl ethyl ketone	B020600-BLK1	ND	ug/L	10	3.3	
Methyl iodide	B020600-BLK1	ND	ug/L	2.0	1.1	
Methyl isobutyl ketone	B020600-BLK1	ND	ug/L	10	2.4	
Methyl methacrylate	B020600-BLK1	ND	ug/L	5.0	1.2	
Pentachloroethane	B020600-BLK1	ND	ug/L	2.0	0.63	
Propionitrile	B020600-BLK1	ND	ug/L	20	6.2	
Tetrahydrofuran	B020600-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	B020600-BLK1	ND	ug/L	0.50	0.34	
o-Xylene	B020600-BLK1	ND	ug/L	0.50	0.13	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>B020600-BLK1</b>	<b>90.3</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>B020600-BLK1</b>	<b>99.4</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>B020600-BLK1</b>	<b>93.0</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		

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Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B020600</b>										
Benzene	B020600-BS1	LCS	24.870	25.000	ug/L	99.5		70 - 130		
Bromodichloromethane	B020600-BS1	LCS	23.970	25.000	ug/L	95.9		70 - 130		
Chlorobenzene	B020600-BS1	LCS	23.960	25.000	ug/L	95.8		70 - 130		
Chloroethane	B020600-BS1	LCS	25.170	25.000	ug/L	101		70 - 130		
1,4-Dichlorobenzene	B020600-BS1	LCS	21.160	25.000	ug/L	84.6		70 - 130		
1,1-Dichloroethane	B020600-BS1	LCS	24.930	25.000	ug/L	99.7		70 - 130		
1,1-Dichloroethene	B020600-BS1	LCS	25.050	25.000	ug/L	100		70 - 130		
Toluene	B020600-BS1	LCS	24.340	25.000	ug/L	97.4		70 - 130		
Trichloroethene	B020600-BS1	LCS	24.560	25.000	ug/L	98.2		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B020600-BS1	LCS	9.1000	10.000	ug/L	91.0		75 - 125		
Toluene-d8 (Surrogate)	B020600-BS1	LCS	9.9100	10.000	ug/L	99.1		80 - 120		
4-Bromofluorobenzene (Surrogate)	B020600-BS1	LCS	8.4600	10.000	ug/L	84.6		80 - 120		

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### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B020600</b>		Used client sample: Y - Description: MW-17-4, 07/30/2018 12:00								
Benzene	MS	1823555-07	ND	25.790	25.000	ug/L		103		70 - 130
	MSD	1823555-07	ND	25.680	25.000	ug/L	0.4	103	20	70 - 130
Bromodichloromethane	MS	1823555-07	ND	24.960	25.000	ug/L		99.8		70 - 130
	MSD	1823555-07	ND	24.020	25.000	ug/L	3.8	96.1	20	70 - 130
Chlorobenzene	MS	1823555-07	ND	24.450	25.000	ug/L		97.8		70 - 130
	MSD	1823555-07	ND	25.050	25.000	ug/L	2.4	100	20	70 - 130
Chloroethane	MS	1823555-07	ND	26.420	25.000	ug/L		106		70 - 130
	MSD	1823555-07	ND	26.010	25.000	ug/L	1.6	104	20	70 - 130
1,4-Dichlorobenzene	MS	1823555-07	ND	23.520	25.000	ug/L		94.1		70 - 130
	MSD	1823555-07	ND	23.780	25.000	ug/L	1.1	95.1	20	70 - 130
1,1-Dichloroethane	MS	1823555-07	ND	25.420	25.000	ug/L		102		70 - 130
	MSD	1823555-07	ND	24.810	25.000	ug/L	2.4	99.2	20	70 - 130
1,1-Dichloroethene	MS	1823555-07	ND	24.860	25.000	ug/L		99.4		70 - 130
	MSD	1823555-07	ND	24.810	25.000	ug/L	0.2	99.2	20	70 - 130
Toluene	MS	1823555-07	ND	25.250	25.000	ug/L		101		70 - 130
	MSD	1823555-07	ND	24.600	25.000	ug/L	2.6	98.4	20	70 - 130
Trichloroethene	MS	1823555-07	0.64000	25.770	25.000	ug/L		101		70 - 130
	MSD	1823555-07	0.64000	25.230	25.000	ug/L	2.1	98.4	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1823555-07	ND	9.0300	10.000	ug/L		90.3		75 - 125
	MSD	1823555-07	ND	9.0600	10.000	ug/L	0.3	90.6		75 - 125
Toluene-d8 (Surrogate)	MS	1823555-07	ND	10.010	10.000	ug/L		100		80 - 120
	MSD	1823555-07	ND	9.7100	10.000	ug/L	3.0	97.1		80 - 120
4-Bromofluorobenzene (Surrogate)	MS	1823555-07	ND	9.1000	10.000	ug/L		91.0		80 - 120
	MSD	1823555-07	ND	9.1900	10.000	ug/L	1.0	91.9		80 - 120

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**Project Number:** 3Q18  
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## Volatile Organic Analysis (EPA Method 524.2) TICs

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020600</b>						
Chloroacetonitrile	B020600-BLK1	0	ug/L			
1-Chlorobutane	B020600-BLK1	0	ug/L			
1,1-Dichloropropanone	B020600-BLK1	0	ug/L			
Methyl acrylate	B020600-BLK1	0	ug/L			
Nitrobenzene	B020600-BLK1	0	ug/L			
2-Nitropropane	B020600-BLK1	0	ug/L			

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## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B021794</b>						
Perchlorate	B021794-BLK1	ND	ug/L	4.0	0.58	

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Project Manager: David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B021794</b>										
Perchlorate	B021794-BS1	LCS	10.466	10.000	ug/L	105		85	115	

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**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B021794</b>		Used client sample: Y - Description: MW-23-3, 07/31/2018 08:10									
Perchlorate	DUP	1823695-03	2.0135	2.3259		ug/L	14.4		15		J
	MS	1823695-03	2.0135	11.744	10.101	ug/L		96.3		80 - 120	
	MSD	1823695-03	2.0135	11.648	10.101	ug/L	0.8	95.4	15	80 - 120	

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**Project Manager:** David Conner

### Metals Analysis

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020537</b>						
Total Recoverable Chromium	B020537-BLK1	ND	ug/L	3.0	0.50	
<b>QC Batch ID: B020618</b>						
Hexavalent Chromium	B020618-BLK1	ND	mg/L	0.0020	0.00070	

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**Project Manager:** David Conner

### Metals Analysis

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab	Quals
								Percent Recovery	RPD		
<b>QC Batch ID: B020537</b>											
Total Recoverable Chromium	B020537-BS1	LCS	45.011	40.000	ug/L	113		85	115		
<b>QC Batch ID: B020618</b>											
Hexavalent Chromium	B020618-BS1	LCS	0.051747	0.050000	mg/L	103		85	115		

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/23/2018 17:58  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Metals Analysis

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B020537</b>		Used client sample: Y - Description: MW-23-4, 07/31/2018 07:45								
Total Recoverable Chromium	DUP	1823695-02	3.3950	3.4650		ug/L	2.0		20	
	MS	1823695-02	3.3950	45.060	40.000	ug/L		104		70 - 130
	MSD	1823695-02	3.3950	47.217	40.000	ug/L	4.7	110	20	70 - 130
<b>QC Batch ID: B020618</b>		Used client sample: Y - Description: MW-23-4, 07/31/2018 07:45								
Hexavalent Chromium	DUP	1823695-02	0.0030780	0.0028650		mg/L	7.2		10	
	MS	1823695-02	0.0030780	0.057305	0.052632	mg/L		103		85 - 115
	MSD	1823695-02	0.0030780	0.057160	0.052632	mg/L	0.3	103	10	85 - 115

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 17:58  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit





Date of Report: 08/23/2018

David Conner

Tidewater Inc.

3761 Attucks Drive

Powell, OH 43065

Client Project: 3Q18

BCL Project: JPL- GW Monitoring Wells

BCL Work Order: 1823821

Invoice ID:

Enclosed are the results of analyses for samples received by the laboratory on 8/1/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Table of Contents

### Sample Information

Chain of Custody and Cooler Receipt form.....	4
Laboratory / Client Sample Cross Reference.....	6

### Sample Results

<b>1823821-01 - TB-7-080118</b>	
Volatile Organic Analysis (EPA Method 524.2).....	10
Volatile Organic Analysis (EPA Method 524.2) TICs.....	13
<b>1823821-02 - MW-11-4</b>	
Volatile Organic Analysis (EPA Method 524.2).....	14
Volatile Organic Analysis (EPA Method 524.2) TICs.....	17
Water Analysis (General Chemistry).....	18
<b>1823821-03 - MW-11-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	19
Volatile Organic Analysis (EPA Method 524.2) TICs.....	22
Water Analysis (General Chemistry).....	23
Metals Analysis.....	24
<b>1823821-04 - MW-11-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	25
Volatile Organic Analysis (EPA Method 524.2) TICs.....	28
Water Analysis (General Chemistry).....	29
Metals Analysis.....	30
<b>1823821-05 - MW-11-1</b>	
Volatile Organic Analysis (EPA Method 524.2).....	31
Volatile Organic Analysis (EPA Method 524.2) TICs.....	34
Water Analysis (General Chemistry).....	35
Metals Analysis.....	36
<b>1823821-06 - MW-12-5</b>	
Volatile Organic Analysis (EPA Method 524.2).....	37
Volatile Organic Analysis (EPA Method 524.2) TICs.....	40
Water Analysis (General Chemistry).....	41
<b>1823821-07 - MW-12-4</b>	
Volatile Organic Analysis (EPA Method 524.2).....	42
Volatile Organic Analysis (EPA Method 524.2) TICs.....	45
Water Analysis (General Chemistry).....	46
<b>1823821-08 - MW-12-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	47
Volatile Organic Analysis (EPA Method 524.2) TICs.....	50
Water Analysis (General Chemistry).....	51
Metals Analysis.....	52
<b>1823821-09 - MW-12-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	53
Volatile Organic Analysis (EPA Method 524.2) TICs.....	56
Water Analysis (General Chemistry).....	57
Metals Analysis.....	58
<b>1823821-10 - EB-7-080118</b>	
Volatile Organic Analysis (EPA Method 524.2).....	59
Volatile Organic Analysis (EPA Method 524.2) TICs.....	62
Water Analysis (General Chemistry).....	63
Metals Analysis.....	64

### Quality Control Reports

#### Volatile Organic Analysis (EPA Method 524.2)

Method Blank Analysis.....	65
Laboratory Control Sample.....	70
Precision and Accuracy.....	71

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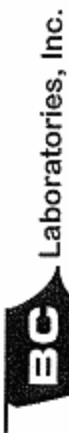


## Table of Contents

<b>Volatile Organic Analysis (EPA Method 524.2) TICs</b>	
Method Blank Analysis.....	73
<b>Water Analysis (General Chemistry)</b>	
Method Blank Analysis.....	74
Laboratory Control Sample.....	75
Precision and Accuracy.....	76
<b>Metals Analysis</b>	
Method Blank Analysis.....	77
Laboratory Control Sample.....	78
Precision and Accuracy.....	79
<b>Notes</b>	
Notes and Definitions.....	80



Chain of Custody Form



Page 1 of 1

18-23821

\*Required Fields

Client: Tidewater, Inc.  
 Attn: David Conner  
 Address: 3761 Altuucks Drive  
 City: Powell State: OH Zip: 43065

Phone: 626 298 5715 Fax: 614 792 2897  
 Email: david.conner@ltdh2o.net

Project Description: JPL-GW Monitoring  
 Project Code: 3Q18  
 Sampler(s): Blaine Tech

Sample #	Sample Description	Date	Time	Matrix*
1	TB-7-08018	08/01/18	0700	GW
2	MW-11-4	0730	GW	X
3	MW-11-3	0815	GW	X
4	MW-11-2	0830	GW	X
5	MW-11-1	0930	GW	X
6	MW-12-5	1030	GW	X
7	MW-12-4	1105	GW	X
8	MW-12-3	1140	GW	X
9	MW-12-2	1230	GW	X
10	EB-7-08018	1300	GW	X

Matrix Types: S = Soil SL = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other

Turnaround # of working days: 24 Hr Rush 48 Hr Rush 3-5 Day Rush 3-5 Day Rush  Normal (10 - Days)

Lab TAT Approval: \_\_\_\_\_ \*Additional Charges May Apply

Analysis Requested: VOCs EPA 524.2 Total Cr (200.8) Perchlorate (EPA 314.0) Chloride, Nitrate, Sulfate (300) Orthophosphate (365.1) Nitrite (353.2) Hexavalent Cr (719B)

SHOWN TO BE CHANGING TIME: DO Cl<sub>2</sub> BOD MBAS COT SS

CHK BY: DISTRIBUTION

Global ID: \_\_\_\_\_

1. Received By: \_\_\_\_\_ Date: 8-1-18 Time: 2:15p  
 2. Relinquished By: \_\_\_\_\_ Date: 8-1-18 Time: 11:15  
 3. Relinquished By: \_\_\_\_\_ Date: 8-1-18 Time: 19:30

BC Laboratories, Inc. 4100 Atlas Court - Bakersfield CA 93308 (661) 327 - 4911 Fax: (661) 327 - 1918 www.bclabs.com

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 18-23821

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

FREE LIQUID YES  NO  W / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO

Emissivity: 0.98 Container: PE Thermometer ID: 208 Date/Time: 8/1/18 1935

Temperature: (A) 23 °C / (C) 20 °C Analyst Init: VR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES		D	D	GH	D	D	D	D	D	D
4oz / 8oz / 16oz PE UNPRES					E					
2oz Cr <sup>4</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz			E	IS	E			E	E	E
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK	A									
40ml VOA VIAL		ABC	ABC	A-F	ABC	ABC	ABC	ABC	ABC	ABC
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/808										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: VR Date/Time: 8/1/18 1935 Rev 21 05/23/2016

A = Actual / C = Corrected

15:4WPDuctWoodPencilLAB\_DEC20FORMS15AMR5Crev 201



Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1823821-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> TB-7-080118 <b>Sampled By:</b> Blaine Tech of BTST	<b>Receive Date:</b> 08/01/2018 19:30 <b>Sampling Date:</b> 08/01/2018 07:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): TB-7-080118 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

<b>1823821-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-11-4 <b>Sampled By:</b> Blaine Tech of BTST	<b>Receive Date:</b> 08/01/2018 19:30 <b>Sampling Date:</b> 08/01/2018 07:30 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-11-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

<b>1823821-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-11-3 <b>Sampled By:</b> Blaine Tech of BTST	<b>Receive Date:</b> 08/01/2018 19:30 <b>Sampling Date:</b> 08/01/2018 08:05 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-11-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1823821-04</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-11-2 <b>Sampled By:</b> Blaine Tech of BTST	<b>Receive Date:</b> 08/01/2018 19:30 <b>Sampling Date:</b> 08/01/2018 08:30 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-11-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

<b>1823821-05</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-11-1 <b>Sampled By:</b> Blaine Tech of BTST	<b>Receive Date:</b> 08/01/2018 19:30 <b>Sampling Date:</b> 08/01/2018 09:30 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-11-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

<b>1823821-06</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-12-5 <b>Sampled By:</b> Blaine Tech of BTST	<b>Receive Date:</b> 08/01/2018 19:30 <b>Sampling Date:</b> 08/01/2018 10:30 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-12-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1823821-07</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-12-4 <b>Sampled By:</b> Blaine Tech of BTST	<b>Receive Date:</b> 08/01/2018 19:30 <b>Sampling Date:</b> 08/01/2018 11:05 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-12-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

<b>1823821-08</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-12-3 <b>Sampled By:</b> Blaine Tech of BTST	<b>Receive Date:</b> 08/01/2018 19:30 <b>Sampling Date:</b> 08/01/2018 11:40 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-12-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

<b>1823821-09</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-12-2 <b>Sampled By:</b> Blaine Tech of BTST	<b>Receive Date:</b> 08/01/2018 19:30 <b>Sampling Date:</b> 08/01/2018 12:30 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-12-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1823821-10</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 08/01/2018 19:30
	<b>Project Number:</b> JPL-GW	<b>Sampling Date:</b> 08/01/2018 13:00
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> EB-7-080118	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Blaine Tech of BTST	<b>Sample Type:</b> Groundwater
		Delivery Work Order:
		Global ID: 0000000000
		Location ID (FieldPoint): EB-7-080118
		Matrix: W
		Sample QC Type (SACode): CS
	Cooler ID:	

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-01	<b>Client Sample Name:</b> JPL-GW, TB-7-080118, 8/1/2018 7:00:00AM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-01	<b>Client Sample Name:</b> JPL-GW, TB-7-080118, 8/1/2018 7:00:00AM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-01	<b>Client Sample Name:</b> JPL-GW, TB-7-080118, 8/1/2018 7:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	91.7	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	89.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 12:30	08/03/18 20:48	MGC	MS-V5	1	B020601

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Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823821-01	<b>Client Sample Name:</b> JPL-GW, TB-7-080118, 8/1/2018 7:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 12:30	08/03/18 20:48	MGC	MS-V5	1	B020601

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Tidewater Inc.  
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Powell, OH 43065

Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-02	<b>Client Sample Name:</b> JPL-GW, MW-11-4, 8/1/2018 7:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-02	<b>Client Sample Name:</b> JPL-GW, MW-11-4, 8/1/2018 7:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-02	<b>Client Sample Name:</b> JPL-GW, MW-11-4, 8/1/2018 7:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.0	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	82.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 12:30	08/03/18 21:11	MGC	MS-V5	1	B020601

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823821-02	<b>Client Sample Name:</b> JPL-GW, MW-11-4, 8/1/2018 7:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 12:30	08/03/18 21:11	MGC	MS-V5	1	B020601

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**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823821-02	<b>Client Sample Name:</b> JPL-GW, MW-11-4, 8/1/2018 7:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/18/18 17:00	08/20/18 11:49	MIG	IC6	1	B022435

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Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-03	<b>Client Sample Name:</b> JPL-GW, MW-11-3, 8/1/2018 8:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.14</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 1823821-03		Client Sample Name: JPL-GW, MW-11-3, 8/1/2018 8:05:00AM, Blaine Tech						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Methyl t-butyl ether</b>	<b>0.28</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
<b>Styrene</b>	<b>0.35</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
<b>Carbon disulfide</b>	<b>0.53</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.48</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-03	<b>Client Sample Name:</b> JPL-GW, MW-11-3, 8/1/2018 8:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	94.2	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 12:30	08/03/18 21:34	MGC	MS-V5	1	B020601

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Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823821-03	<b>Client Sample Name:</b> JPL-GW, MW-11-3, 8/1/2018 8:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 12:30	08/03/18 21:34	MGC	MS-V5	1	B020601

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**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823821-03	<b>Client Sample Name:</b> JPL-GW, MW-11-3, 8/1/2018 8:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/18/18 17:00	08/20/18 18:28	MIG	IC6	1	B022435

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**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823821-03	<b>Client Sample Name:</b> JPL-GW, MW-11-3, 8/1/2018 8:05:00AM, Blaine Tech							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>2.4</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>0.75</b>	<b>J</b>	<b>2</b>

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	08/01/18 20:50	08/01/18 20:50	SAV	KONE-1	1	B020640
2	EPA-200.8	08/06/18 08:30	08/06/18 14:26	MH1	PE-EL3	1	B020772

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Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 1823821-04      **Client Sample Name:** JPL-GW, MW-11-2, 8/1/2018 8:30:00AM, Blaine Tech

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-04	<b>Client Sample Name:</b> JPL-GW, MW-11-2, 8/1/2018 8:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Powell, OH 43065

**Reported:** 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-04	<b>Client Sample Name:</b> JPL-GW, MW-11-2, 8/1/2018 8:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	94.8	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 12:30	08/03/18 18:30	MGC	MS-V5	1	B020601

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Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823821-04	<b>Client Sample Name:</b> JPL-GW, MW-11-2, 8/1/2018 8:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 12:30	08/03/18 18:30	MGC	MS-V5	1	B020601

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**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823821-04	<b>Client Sample Name:</b> JPL-GW, MW-11-2, 8/1/2018 8:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/18/18 17:00	08/20/18 12:19	MIG	IC6	1	B022435

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823821-04	<b>Client Sample Name:</b> JPL-GW, MW-11-2, 8/1/2018 8:30:00AM, Blaine Tech							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>0.62</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>0.75</b>	<b>J</b>	<b>2</b>

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	08/01/18 20:50	08/01/18 20:50	SAV	KONE-1	1	B020640
2	EPA-200.8	08/06/18 08:30	08/06/18 13:24	MH1	PE-EL3	1	B020772

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-05	<b>Client Sample Name:</b> JPL-GW, MW-11-1, 8/1/2018 9:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-05	<b>Client Sample Name:</b> JPL-GW, MW-11-1, 8/1/2018 9:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-05	<b>Client Sample Name:</b> JPL-GW, MW-11-1, 8/1/2018 9:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	94.4	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	95.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	93.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 12:30	08/03/18 21:57	MGC	MS-V5	1	B020601

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Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823821-05	<b>Client Sample Name:</b> JPL-GW, MW-11-1, 8/1/2018 9:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 12:30	08/03/18 21:57	MGC	MS-V5	1	B020601

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Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823821-05	<b>Client Sample Name:</b> JPL-GW, MW-11-1, 8/1/2018 9:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloride	36	mg/L	0.50	0.077	EPA-300.0	ND		1
Nitrate as N	1.7	mg/L	0.10	0.021	EPA-300.0	ND		1
Sulfate	47	mg/L	1.0	0.13	EPA-300.0	ND		1
Nitrite as N	0.011	mg/L	0.050	0.010	EPA-353.2	0.011	J	2
Perchlorate	1.3	ug/L	4.0	0.58	EPA-314.0	ND	J	3
ortho-Phosphate as P	0.018	mg/L	0.050	0.017	EPA-365.1	ND	J	4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/02/18 00:30	08/02/18 06:05	EMW	IC2	1	B020565
2	EPA-353.2	08/02/18 12:03	08/02/18 12:06	MC1	KONE-1	1	B020670
3	EPA-314.0	08/18/18 17:00	08/20/18 13:21	MIG	IC6	1	B022435
4	EPA-365.1	08/02/18 07:23	08/02/18 08:46	MC1	KONE-1	1	B020656

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Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823821-05	<b>Client Sample Name:</b> JPL-GW, MW-11-1, 8/1/2018 9:30:00AM, Blaine Tech							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>0.90</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	0.75	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	08/01/18 20:50	08/01/18 20:50	SAV	KONE-1	1	B020640
2	EPA-200.8	08/06/18 08:30	08/06/18 14:30	MH1	PE-EL3	1	B020772

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Powell, OH 43065

Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-06	<b>Client Sample Name:</b> JPL-GW, MW-12-5, 8/1/2018 10:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.23</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-06	<b>Client Sample Name:</b> JPL-GW, MW-12-5, 8/1/2018 10:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-06	<b>Client Sample Name:</b> JPL-GW, MW-12-5, 8/1/2018 10:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	92.8	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	94.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	91.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 12:30	08/03/18 22:20	MGC	MS-V5	1	B020601

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Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823821-06	<b>Client Sample Name:</b> JPL-GW, MW-12-5, 8/1/2018 10:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 12:30	08/03/18 22:20	MGC	MS-V5	1	B020601

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Tidewater Inc.  
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Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823821-06	<b>Client Sample Name:</b> JPL-GW, MW-12-5, 8/1/2018 10:30:00AM, Blaine Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	1.2	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/18/18 17:00	08/20/18 13:36	MIG	IC6	1	B022435

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Tidewater Inc.  
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Powell, OH 43065

Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-07	<b>Client Sample Name:</b> JPL-GW, MW-12-4, 8/1/2018 11:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
<b>Carbon tetrachloride</b>	<b>0.26</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.17</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.36</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-07	<b>Client Sample Name:</b> JPL-GW, MW-12-4, 8/1/2018 11:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-07	<b>Client Sample Name:</b> JPL-GW, MW-12-4, 8/1/2018 11:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	88.7	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	87.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	89.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 12:30	08/03/18 22:43	MGC	MS-V5	1	B020601

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Powell, OH 43065

**Reported:** 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823821-07	<b>Client Sample Name:</b> JPL-GW, MW-12-4, 8/1/2018 11:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 12:30	08/03/18 22:43	MGC	MS-V5	1	B020601

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Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823821-07	<b>Client Sample Name:</b> JPL-GW, MW-12-4, 8/1/2018 11:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	1.5	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/18/18 17:00	08/20/18 14:22	MIG	IC6	1	B022435

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Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-08	<b>Client Sample Name:</b> JPL-GW, MW-12-3, 8/1/2018 11:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
<b>Carbon tetrachloride</b>	<b>0.28</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.17</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.57</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-08	<b>Client Sample Name:</b> JPL-GW, MW-12-3, 8/1/2018 11:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-08	<b>Client Sample Name:</b> JPL-GW, MW-12-3, 8/1/2018 11:40:00AM, Blaine Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	94.9	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	94.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 12:32	08/04/18 00:15	MGC	MS-V5	1	B020602

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Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823821-08	<b>Client Sample Name:</b> JPL-GW, MW-12-3, 8/1/2018 11:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 12:32	08/04/18 00:15	MGC	MS-V5	1	B020602

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Tidewater Inc.  
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Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823821-08	<b>Client Sample Name:</b> JPL-GW, MW-12-3, 8/1/2018 11:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	1.8	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/18/18 17:00	08/20/18 17:42	MIG	IC6	1	B022436

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Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823821-08	<b>Client Sample Name:</b> JPL-GW, MW-12-3, 8/1/2018 11:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.2</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>0.72</b>	<b>J</b>	<b>2</b>

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	08/02/18 09:14	08/02/18 09:45		MC1	KONE-1	1	B020678
2	EPA-200.8	08/06/18 08:30	08/07/18 19:14		ARD	PE-EL3	1	B020774

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Powell, OH 43065

Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-09	<b>Client Sample Name:</b> JPL-GW, MW-12-2, 8/1/2018 12:30:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-09	<b>Client Sample Name:</b> JPL-GW, MW-12-2, 8/1/2018 12:30:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-09	<b>Client Sample Name:</b> JPL-GW, MW-12-2, 8/1/2018 12:30:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	86.7	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	87.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	99.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 12:30	08/03/18 23:06	MGC	MS-V5	1	B020601

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Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823821-09	<b>Client Sample Name:</b> JPL-GW, MW-12-2, 8/1/2018 12:30:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 12:30	08/03/18 23:06	MGC	MS-V5	1	B020601

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823821-09	<b>Client Sample Name:</b> JPL-GW, MW-12-2, 8/1/2018 12:30:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	1.8	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/18/18 17:00	08/19/18 19:10	EMW	IC6	1	B022436

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**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823821-09	<b>Client Sample Name:</b> JPL-GW, MW-12-2, 8/1/2018 12:30:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.6</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	0.75	J	2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	08/02/18 09:14	08/02/18 09:45		MC1	KONE-1	1	B020678
2	EPA-200.8	08/06/18 08:30	08/06/18 14:36		MH1	PE-EL3	1	B020772

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Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-10	<b>Client Sample Name:</b> JPL-GW, EB-7-080118, 8/1/2018 1:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-10	<b>Client Sample Name:</b> JPL-GW, EB-7-080118, 8/1/2018 1:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823821-10	<b>Client Sample Name:</b> JPL-GW, EB-7-080118, 8/1/2018 1:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.3	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 12:30	08/03/18 23:29	MGC	MS-V5	1	B020601

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Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823821-10	<b>Client Sample Name:</b> JPL-GW, EB-7-080118, 8/1/2018 1:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/03/18 12:30	08/03/18 23:29	MGC	MS-V5	1	B020601

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**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823821-10	<b>Client Sample Name:</b> JPL-GW, EB-7-080118, 8/1/2018 1:00:00PM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/18/18 17:00	08/19/18 19:56	EMW	IC6	1	B022436

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**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823821-10	<b>Client Sample Name:</b> JPL-GW, EB-7-080118, 8/1/2018 1:00:00PM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>0.68</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>0.72</b>	<b>J</b>	<b>2</b>

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	08/02/18 09:14	08/02/18 09:45		MC1	KONE-1	1	B020678
2	EPA-200.8	08/06/18 08:30	08/07/18 21:16		ARD	PE-EL3	1	B020774

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Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020601</b>						
Benzene	B020601-BLK1	ND	ug/L	0.50	0.11	
Bromobenzene	B020601-BLK1	ND	ug/L	0.50	0.15	
Bromochloromethane	B020601-BLK1	ND	ug/L	0.50	0.27	
Bromodichloromethane	B020601-BLK1	ND	ug/L	0.50	0.20	
Bromoform	B020601-BLK1	ND	ug/L	0.50	0.46	
Bromomethane	B020601-BLK1	ND	ug/L	0.50	0.20	
n-Butylbenzene	B020601-BLK1	ND	ug/L	0.50	0.15	
sec-Butylbenzene	B020601-BLK1	ND	ug/L	0.50	0.13	
tert-Butylbenzene	B020601-BLK1	ND	ug/L	0.50	0.18	
Carbon tetrachloride	B020601-BLK1	ND	ug/L	0.50	0.17	
Chlorobenzene	B020601-BLK1	ND	ug/L	0.50	0.14	
Chloroethane	B020601-BLK1	ND	ug/L	0.50	0.17	
Chloroform	B020601-BLK1	ND	ug/L	0.50	0.14	
Chloromethane	B020601-BLK1	ND	ug/L	0.50	0.11	
2-Chlorotoluene	B020601-BLK1	ND	ug/L	0.50	0.14	
4-Chlorotoluene	B020601-BLK1	ND	ug/L	0.50	0.093	
Dibromochloromethane	B020601-BLK1	ND	ug/L	0.50	0.22	
1,2-Dibromo-3-chloropropane	B020601-BLK1	ND	ug/L	1.0	0.89	
1,2-Dibromoethane	B020601-BLK1	ND	ug/L	0.50	0.22	
Dibromomethane	B020601-BLK1	ND	ug/L	0.50	0.23	
1,2-Dichlorobenzene	B020601-BLK1	ND	ug/L	0.50	0.21	
1,3-Dichlorobenzene	B020601-BLK1	ND	ug/L	0.50	0.16	
1,4-Dichlorobenzene	B020601-BLK1	ND	ug/L	0.50	0.15	
Dichlorodifluoromethane	B020601-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethane	B020601-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloroethane	B020601-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	B020601-BLK1	ND	ug/L	0.50	0.27	
cis-1,2-Dichloroethene	B020601-BLK1	ND	ug/L	0.50	0.27	
trans-1,2-Dichloroethene	B020601-BLK1	ND	ug/L	0.50	0.17	
1,2-Dichloropropane	B020601-BLK1	ND	ug/L	0.50	0.15	
1,3-Dichloropropane	B020601-BLK1	ND	ug/L	0.50	0.13	
2,2-Dichloropropane	B020601-BLK1	ND	ug/L	0.50	0.18	
1,1-Dichloropropene	B020601-BLK1	ND	ug/L	0.50	0.19	
cis-1,3-Dichloropropene	B020601-BLK1	ND	ug/L	0.50	0.14	

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020601</b>						
trans-1,3-Dichloropropene	B020601-BLK1	ND	ug/L	0.50	0.13	
Ethylbenzene	B020601-BLK1	ND	ug/L	0.50	0.15	
Hexachlorobutadiene	B020601-BLK1	ND	ug/L	0.50	0.20	
Isopropylbenzene	B020601-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	B020601-BLK1	ND	ug/L	0.50	0.14	
Methylene chloride	B020601-BLK1	ND	ug/L	0.50	0.21	
Methyl t-butyl ether	B020601-BLK1	ND	ug/L	0.50	0.14	
Naphthalene	B020601-BLK1	ND	ug/L	0.50	0.16	
n-Propylbenzene	B020601-BLK1	ND	ug/L	0.50	0.12	
Styrene	B020601-BLK1	ND	ug/L	0.50	0.12	
1,1,1,2-Tetrachloroethane	B020601-BLK1	ND	ug/L	0.50	0.21	
1,1,1,2,2-Tetrachloroethane	B020601-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	B020601-BLK1	ND	ug/L	0.50	0.23	
Toluene	B020601-BLK1	ND	ug/L	0.50	0.17	
1,2,3-Trichlorobenzene	B020601-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trichlorobenzene	B020601-BLK1	ND	ug/L	0.50	0.15	
1,1,1-Trichloroethane	B020601-BLK1	ND	ug/L	0.50	0.21	
1,1,2-Trichloroethane	B020601-BLK1	ND	ug/L	0.50	0.21	
Trichloroethene	B020601-BLK1	ND	ug/L	0.50	0.19	
Trichlorofluoromethane	B020601-BLK1	ND	ug/L	0.50	0.14	
1,2,3-Trichloropropane	B020601-BLK1	ND	ug/L	1.0	0.78	
1,1,2-Trichloro-1,2,2-trifluoroethane	B020601-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trimethylbenzene	B020601-BLK1	ND	ug/L	0.50	0.17	
1,3,5-Trimethylbenzene	B020601-BLK1	ND	ug/L	0.50	0.14	
Vinyl chloride	B020601-BLK1	ND	ug/L	0.50	0.18	
Acetone	B020601-BLK1	ND	ug/L	10	6.6	
Acrylonitrile	B020601-BLK1	ND	ug/L	5.0	1.5	
Allyl chloride	B020601-BLK1	ND	ug/L	5.0	0.47	
t-Amyl Methyl ether	B020601-BLK1	ND	ug/L	0.50	0.19	
t-Butyl alcohol	B020601-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	B020601-BLK1	ND	ug/L	1.0	0.48	
trans-1,4-Dichloro-2-butene	B020601-BLK1	ND	ug/L	5.0	1.8	
Diethyl ether	B020601-BLK1	ND	ug/L	2.0	0.33	
Ethyl methacrylate	B020601-BLK1	ND	ug/L	4.0	1.3	

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Tidewater Inc.
3761 Attucks Drive
Powell, OH 43065

Reported: 08/23/2018 11:05
Project: JPL- GW Monitoring Wells
Project Number: 3Q18
Project Manager: David Conner

Volatile Organic Analysis (EPA Method 524.2)

Quality Control Report - Method Blank Analysis

Table with 7 columns: Constituent, QC Sample ID, MB Result, Units, PQL, MDL, Lab Quals

QC Batch ID: B020601

Main data table for QC Batch B020601 listing various compounds and their results.

QC Batch ID: B020602

Main data table for QC Batch B020602 listing various compounds and their results.

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Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020602</b>						
Dibromochloromethane	B020602-BLK1	ND	ug/L	0.50	0.22	
1,2-Dibromo-3-chloropropane	B020602-BLK1	ND	ug/L	1.0	0.89	
1,2-Dibromoethane	B020602-BLK1	ND	ug/L	0.50	0.22	
Dibromomethane	B020602-BLK1	ND	ug/L	0.50	0.23	
1,2-Dichlorobenzene	B020602-BLK1	ND	ug/L	0.50	0.21	
1,3-Dichlorobenzene	B020602-BLK1	ND	ug/L	0.50	0.16	
1,4-Dichlorobenzene	B020602-BLK1	ND	ug/L	0.50	0.15	
Dichlorodifluoromethane	B020602-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethane	B020602-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloroethane	B020602-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	B020602-BLK1	ND	ug/L	0.50	0.27	
cis-1,2-Dichloroethene	B020602-BLK1	ND	ug/L	0.50	0.27	
trans-1,2-Dichloroethene	B020602-BLK1	ND	ug/L	0.50	0.17	
1,2-Dichloropropane	B020602-BLK1	ND	ug/L	0.50	0.15	
1,3-Dichloropropane	B020602-BLK1	ND	ug/L	0.50	0.13	
2,2-Dichloropropane	B020602-BLK1	ND	ug/L	0.50	0.18	
1,1-Dichloropropene	B020602-BLK1	ND	ug/L	0.50	0.19	
cis-1,3-Dichloropropene	B020602-BLK1	ND	ug/L	0.50	0.14	
trans-1,3-Dichloropropene	B020602-BLK1	ND	ug/L	0.50	0.13	
Ethylbenzene	B020602-BLK1	ND	ug/L	0.50	0.15	
Hexachlorobutadiene	B020602-BLK1	ND	ug/L	0.50	0.20	
Isopropylbenzene	B020602-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	B020602-BLK1	ND	ug/L	0.50	0.14	
Methylene chloride	B020602-BLK1	ND	ug/L	0.50	0.21	
Methyl t-butyl ether	B020602-BLK1	ND	ug/L	0.50	0.14	
Naphthalene	B020602-BLK1	ND	ug/L	0.50	0.16	
n-Propylbenzene	B020602-BLK1	ND	ug/L	0.50	0.12	
Styrene	B020602-BLK1	ND	ug/L	0.50	0.12	
1,1,1,2-Tetrachloroethane	B020602-BLK1	ND	ug/L	0.50	0.21	
1,1,1,2,2-Tetrachloroethane	B020602-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	B020602-BLK1	ND	ug/L	0.50	0.23	
Toluene	B020602-BLK1	ND	ug/L	0.50	0.17	
1,2,3-Trichlorobenzene	B020602-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trichlorobenzene	B020602-BLK1	ND	ug/L	0.50	0.15	

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Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020602</b>						
1,1,1-Trichloroethane	B020602-BLK1	ND	ug/L	0.50	0.21	
1,1,2-Trichloroethane	B020602-BLK1	ND	ug/L	0.50	0.21	
Trichloroethene	B020602-BLK1	ND	ug/L	0.50	0.19	
Trichlorofluoromethane	B020602-BLK1	ND	ug/L	0.50	0.14	
1,2,3-Trichloropropane	B020602-BLK1	ND	ug/L	1.0	0.78	
1,1,2-Trichloro-1,2,2-trifluoroethane	B020602-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trimethylbenzene	B020602-BLK1	ND	ug/L	0.50	0.17	
1,3,5-Trimethylbenzene	B020602-BLK1	ND	ug/L	0.50	0.14	
Vinyl chloride	B020602-BLK1	ND	ug/L	0.50	0.18	
Acetone	B020602-BLK1	ND	ug/L	10	6.6	
Acrylonitrile	B020602-BLK1	ND	ug/L	5.0	1.5	
Allyl chloride	B020602-BLK1	ND	ug/L	5.0	0.47	
t-Amyl Methyl ether	B020602-BLK1	ND	ug/L	0.50	0.19	
t-Butyl alcohol	B020602-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	B020602-BLK1	ND	ug/L	1.0	0.48	
trans-1,4-Dichloro-2-butene	B020602-BLK1	ND	ug/L	5.0	1.8	
Diethyl ether	B020602-BLK1	ND	ug/L	2.0	0.33	
Ethyl methacrylate	B020602-BLK1	ND	ug/L	4.0	1.3	
Ethyl t-butyl ether	B020602-BLK1	ND	ug/L	0.50	0.32	
Hexachloroethane	B020602-BLK1	ND	ug/L	0.50	0.11	
2-Hexanone	B020602-BLK1	ND	ug/L	10	5.0	
Methacrylonitrile	B020602-BLK1	ND	ug/L	10	2.3	
Methyl ethyl ketone	B020602-BLK1	ND	ug/L	10	3.3	
Methyl iodide	B020602-BLK1	ND	ug/L	2.0	1.1	
Methyl isobutyl ketone	B020602-BLK1	ND	ug/L	10	2.4	
Methyl methacrylate	B020602-BLK1	ND	ug/L	5.0	1.2	
Pentachloroethane	B020602-BLK1	ND	ug/L	2.0	0.63	
Propionitrile	B020602-BLK1	ND	ug/L	20	6.2	
Tetrahydrofuran	B020602-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	B020602-BLK1	ND	ug/L	0.50	0.34	
o-Xylene	B020602-BLK1	ND	ug/L	0.50	0.13	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>B020602-BLK1</b>	<b>93.8</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>B020602-BLK1</b>	<b>90.6</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>B020602-BLK1</b>	<b>91.9</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		

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3761 Attucks Drive  
Powell, OH 43065

Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B020601</b>										
Benzene	B020601-BS1	LCS	25.040	25.000	ug/L	100		70 - 130		
Bromodichloromethane	B020601-BS1	LCS	24.370	25.000	ug/L	97.5		70 - 130		
Chlorobenzene	B020601-BS1	LCS	25.540	25.000	ug/L	102		70 - 130		
Chloroethane	B020601-BS1	LCS	25.950	25.000	ug/L	104		70 - 130		
1,4-Dichlorobenzene	B020601-BS1	LCS	22.750	25.000	ug/L	91.0		70 - 130		
1,1-Dichloroethane	B020601-BS1	LCS	25.430	25.000	ug/L	102		70 - 130		
1,1-Dichloroethene	B020601-BS1	LCS	25.580	25.000	ug/L	102		70 - 130		
Toluene	B020601-BS1	LCS	25.360	25.000	ug/L	101		70 - 130		
Trichloroethene	B020601-BS1	LCS	25.700	25.000	ug/L	103		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B020601-BS1	LCS	9.0000	10.000	ug/L	90.0		75 - 125		
Toluene-d8 (Surrogate)	B020601-BS1	LCS	9.6500	10.000	ug/L	96.5		80 - 120		
4-Bromofluorobenzene (Surrogate)	B020601-BS1	LCS	9.4300	10.000	ug/L	94.3		80 - 120		

<b>QC Batch ID: B020602</b>										
Benzene	B020602-BS1	LCS	25.530	25.000	ug/L	102		70 - 130		
Bromodichloromethane	B020602-BS1	LCS	23.200	25.000	ug/L	92.8		70 - 130		
Chlorobenzene	B020602-BS1	LCS	26.800	25.000	ug/L	107		70 - 130		
Chloroethane	B020602-BS1	LCS	26.180	25.000	ug/L	105		70 - 130		
1,4-Dichlorobenzene	B020602-BS1	LCS	28.170	25.000	ug/L	113		70 - 130		
1,1-Dichloroethane	B020602-BS1	LCS	25.610	25.000	ug/L	102		70 - 130		
1,1-Dichloroethene	B020602-BS1	LCS	25.090	25.000	ug/L	100		70 - 130		
Toluene	B020602-BS1	LCS	24.940	25.000	ug/L	99.8		70 - 130		
Trichloroethene	B020602-BS1	LCS	27.260	25.000	ug/L	109		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B020602-BS1	LCS	9.6300	10.000	ug/L	96.3		75 - 125		
Toluene-d8 (Surrogate)	B020602-BS1	LCS	9.7100	10.000	ug/L	97.1		80 - 120		
4-Bromofluorobenzene (Surrogate)	B020602-BS1	LCS	10.960	10.000	ug/L	110		80 - 120		

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Reported: 08/23/2018 11:05
Project: JPL- GW Monitoring Wells
Project Number: 3Q18
Project Manager: David Conner

Volatile Organic Analysis (EPA Method 524.2)

Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Source Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Percent Recovery, Lab Quals. Includes QC Batch ID: B020601 and Used client sample: Y - Description: MW-11-2, 08/01/2018 08:30.

Table with columns: Constituent, Source Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Percent Recovery, Lab Quals. Includes QC Batch ID: B020602 and Used client sample: Y - Description: MW-12-3, 08/01/2018 11:40.

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Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B020602</b>		Used client sample: Y - Description: MW-12-3, 08/01/2018 11:40								
1,1-Dichloroethene	MS	1823821-08	ND	24.890	25.000	ug/L		99.6		70 - 130
	MSD	1823821-08	ND	27.200	25.000	ug/L	8.9	109	20	70 - 130
Toluene	MS	1823821-08	ND	24.480	25.000	ug/L		97.9		70 - 130
	MSD	1823821-08	ND	22.960	25.000	ug/L	6.4	91.8	20	70 - 130
Trichloroethene	MS	1823821-08	ND	23.980	25.000	ug/L		95.9		70 - 130
	MSD	1823821-08	ND	24.990	25.000	ug/L	4.1	100	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1823821-08	ND	8.9800	10.000	ug/L		89.8		75 - 125
	MSD	1823821-08	ND	9.1500	10.000	ug/L	1.9	91.5		75 - 125
Toluene-d8 (Surrogate)	MS	1823821-08	ND	9.4400	10.000	ug/L		94.4		80 - 120
	MSD	1823821-08	ND	8.8000	10.000	ug/L	7.0	88.0		80 - 120
4-Bromofluorobenzene (Surrogate)	MS	1823821-08	ND	10.550	10.000	ug/L		106		80 - 120
	MSD	1823821-08	ND	9.6700	10.000	ug/L	8.7	96.7		80 - 120

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**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020601</b>						
Chloroacetonitrile	B020601-BLK1	0	ug/L			
1-Chlorobutane	B020601-BLK1	0	ug/L			
1,1-Dichloropropanone	B020601-BLK1	0	ug/L			
Methyl acrylate	B020601-BLK1	0	ug/L			
Nitrobenzene	B020601-BLK1	0	ug/L			
2-Nitropropane	B020601-BLK1	0	ug/L			
<b>QC Batch ID: B020602</b>						
Chloroacetonitrile	B020602-BLK1	0	ug/L			
1-Chlorobutane	B020602-BLK1	0	ug/L			
1,1-Dichloropropanone	B020602-BLK1	0	ug/L			
Methyl acrylate	B020602-BLK1	0	ug/L			
Nitrobenzene	B020602-BLK1	0	ug/L			
2-Nitropropane	B020602-BLK1	0	ug/L			

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**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020565</b>						
Chloride	B020565-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B020565-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B020565-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B020656</b>						
ortho-Phosphate as P	B020656-BLK1	ND	mg/L	0.050	0.017	
<b>QC Batch ID: B020670</b>						
Nitrite as N	B020670-BLK1	0.010942	mg/L	0.050	0.010	J
<b>QC Batch ID: B022435</b>						
Perchlorate	B022435-BLK1	ND	ug/L	4.0	0.58	
<b>QC Batch ID: B022436</b>						
Perchlorate	B022436-BLK1	ND	ug/L	4.0	0.58	

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**Reported:** 08/23/2018 11:05  
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Project Number: 3Q18  
Project Manager: David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B020565</b>										
Chloride	B020565-BS1	LCS	50.750	50.000	mg/L	102		90 - 110		
Nitrate as N	B020565-BS1	LCS	4.9410	5.0000	mg/L	98.8		90 - 110		
Sulfate	B020565-BS1	LCS	97.981	100.00	mg/L	98.0		90 - 110		
<b>QC Batch ID: B020656</b>										
ortho-Phosphate as P	B020656-BS1	LCS	0.20521	0.20000	mg/L	103		90 - 110		
<b>QC Batch ID: B020670</b>										
Nitrite as N	B020670-BS1	LCS	0.49101	0.50000	mg/L	98.2		90 - 110		
<b>QC Batch ID: B022435</b>										
Perchlorate	B022435-BS1	LCS	10.029	10.000	ug/L	100		85 - 115		
<b>QC Batch ID: B022436</b>										
Perchlorate	B022436-BS1	LCS	9.2736	10.000	ug/L	92.7		85 - 115		

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### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B020565</b>		Used client sample: N								
Chloride	DUP	1823826-02	69.920	70.479		mg/L	0.8		10	
	MS	1823826-02	69.920	123.92	50.505	mg/L		107		80 - 120
	MSD	1823826-02	69.920	122.67	50.505	mg/L	1.0	104	10	80 - 120
Nitrate as N	DUP	1823826-02	2.7870	2.7740		mg/L	0.5		10	
	MS	1823826-02	2.7870	8.1838	5.0505	mg/L		107		80 - 120
	MSD	1823826-02	2.7870	8.0434	5.0505	mg/L	1.7	104	10	80 - 120
Sulfate	DUP	1823826-02	150.92	150.79		mg/L	0.1		10	
	MS	1823826-02	150.92	256.77	101.01	mg/L		105		80 - 120
	MSD	1823826-02	150.92	253.87	101.01	mg/L	1.1	102	10	80 - 120
<b>QC Batch ID: B020656</b>		Used client sample: N								
ortho-Phosphate as P	DUP	1823709-01	3.7090	3.7136		mg/L	0.1		10	
	MS	1823709-01	3.7090	4.8545	1.0526	mg/L		109		90 - 110
	MSD	1823709-01	3.7090	4.8396	1.0526	mg/L	0.3	107	10	90 - 110
<b>QC Batch ID: B020670</b>		Used client sample: N								
Nitrite as N	DUP	1823753-01	ND	ND		mg/L			10	
	MS	1823753-01	ND	0.49940	0.52632	mg/L		94.9		90 - 110
	MSD	1823753-01	ND	0.50351	0.52632	mg/L	0.8	95.7	10	90 - 110
<b>QC Batch ID: B022435</b>		Used client sample: Y - Description: MW-11-2, 08/01/2018 08:30								
Perchlorate	DUP	823821-04RE'	ND	ND		ug/L			15	
	MS	823821-04RE'	ND	8.5800	10.101	ug/L		84.9		80 - 120
	MSD	823821-04RE'	ND	8.9877	10.101	ug/L	4.6	89.0	15	80 - 120
<b>QC Batch ID: B022436</b>		Used client sample: Y - Description: MW-12-3, 08/01/2018 11:40								
Perchlorate	DUP	1823821-08	1.8454	1.5310		ug/L	18.6		15	J,A02
	MS	1823821-08	1.8454	8.8792	10.101	ug/L		69.6		80 - 120 Q03
	MSD	1823821-08	1.8454	9.0999	10.101	ug/L	2.5	71.8	15	80 - 120 Q03

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020640</b>						
Hexavalent Chromium	B020640-BLK1	ND	mg/L	0.0020	0.00070	
<b>QC Batch ID: B020678</b>						
Hexavalent Chromium	B020678-BLK1	ND	mg/L	0.0020	0.00070	
<b>QC Batch ID: B020772</b>						
<b>Total Recoverable Chromium</b>	<b>B020772-BLK1</b>	<b>0.75300</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>J</b>
<b>QC Batch ID: B020774</b>						
<b>Total Recoverable Chromium</b>	<b>B020774-BLK1</b>	<b>0.72300</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>J</b>

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Powell, OH 43065

**Reported:** 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Metals Analysis

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B020640</b>										
Hexavalent Chromium	B020640-BS1	LCS	0.051353	0.050000	mg/L	103		85 - 115		
<b>QC Batch ID: B020678</b>										
Hexavalent Chromium	B020678-BS1	LCS	0.052189	0.050000	mg/L	104		85 - 115		
<b>QC Batch ID: B020772</b>										
Total Recoverable Chromium	B020772-BS1	LCS	41.981	40.000	ug/L	105		85 - 115		
<b>QC Batch ID: B020774</b>										
Total Recoverable Chromium	B020774-BS1	LCS	41.577	40.000	ug/L	104		85 - 115		

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 08/23/2018 11:05  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Metals Analysis

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B020640</b>		Used client sample: Y - Description: MW-11-2, 08/01/2018 08:30								
Hexavalent Chromium	DUP	1823821-04	ND	ND		mg/L			10	
	MS	1823821-04	ND	0.053995	0.052632	mg/L		103		85 - 115
	MSD	1823821-04	ND	0.053082	0.052632	mg/L	1.7	101	10	85 - 115
<b>QC Batch ID: B020678</b>		Used client sample: Y - Description: MW-12-3, 08/01/2018 11:40								
Hexavalent Chromium	DUP	1823821-08	ND	ND		mg/L			10	
	MS	1823821-08	ND	0.053397	0.052632	mg/L		101		85 - 115
	MSD	1823821-08	ND	0.053794	0.052632	mg/L	0.7	102	10	85 - 115
<b>QC Batch ID: B020772</b>		Used client sample: Y - Description: MW-11-2, 08/01/2018 08:30								
Total Recoverable Chromium	DUP	1823821-04	0.62000	0.61500		ug/L	0.8		20	J
	MS	1823821-04	0.62000	39.131	40.000	ug/L		96.3		70 - 130
	MSD	1823821-04	0.62000	39.591	40.000	ug/L	1.2	97.4	20	70 - 130
<b>QC Batch ID: B020774</b>		Used client sample: Y - Description: MW-12-3, 08/01/2018 11:40								
Total Recoverable Chromium	DUP	1823821-08	1.2160	0.87100		ug/L	33.1		20	J,A02
	MS	1823821-08	1.2160	40.386	40.000	ug/L		97.9		70 - 130
	MSD	1823821-08	1.2160	42.188	40.000	ug/L	4.4	102	20	70 - 130

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 08/23/2018 11:05  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.





Date of Report: 09/21/2018

David Conner

Tidewater Inc.

3761 Attucks Drive  
Powell, OH 43065

Client Project: 3Q18  
BCL Project: JPL- GW Monitoring Wells  
BCL Work Order: 1823982  
Invoice ID:

Enclosed are the results of analyses for samples received by the laboratory on 8/2/2018. If you have any questions concerning this report, please feel free to contact me.

Revised Report: This report supercedes Report ID 1000783680

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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# Table of Contents

## Sample Information

Chain of Custody and Cooler Receipt form.....	4
Laboratory / Client Sample Cross Reference.....	7

## Sample Results

<b>1823982-01 - TB-8-080218</b>	
Volatile Organic Analysis (EPA Method 524.2).....	11
Volatile Organic Analysis (EPA Method 524.2) TICs.....	14
<b>1823982-02 - MW-5</b>	
Volatile Organic Analysis (EPA Method 524.2).....	15
Volatile Organic Analysis (EPA Method 524.2) TICs.....	18
Water Analysis (General Chemistry).....	19
Metals Analysis.....	20
<b>1823982-03 - DUP-5-3Q18</b>	
Volatile Organic Analysis (EPA Method 524.2).....	21
Volatile Organic Analysis (EPA Method 524.2) TICs.....	24
Water Analysis (General Chemistry).....	25
Metals Analysis.....	26
<b>1823982-04 - MW-15</b>	
Metals Analysis.....	27
<b>1823982-05 - MW-6</b>	
Volatile Organic Analysis (EPA Method 524.2).....	28
Volatile Organic Analysis (EPA Method 524.2) TICs.....	31
Water Analysis (General Chemistry).....	32
Metals Analysis.....	33
<b>1823982-06 - DUP-6-3Q18</b>	
Volatile Organic Analysis (EPA Method 524.2).....	34
Volatile Organic Analysis (EPA Method 524.2) TICs.....	37
Water Analysis (General Chemistry).....	38
Metals Analysis.....	39
<b>1823982-07 - MW-8</b>	
Volatile Organic Analysis (EPA Method 524.2).....	40
Volatile Organic Analysis (EPA Method 524.2) TICs.....	43
Water Analysis (General Chemistry).....	44
Metals Analysis.....	45
<b>1823982-08 - DUP-7-3Q18</b>	
Volatile Organic Analysis (EPA Method 524.2).....	46
Volatile Organic Analysis (EPA Method 524.2) TICs.....	49
Water Analysis (General Chemistry).....	50
Metals Analysis.....	51
<b>1823982-09 - MW-10</b>	
Volatile Organic Analysis (EPA Method 524.2).....	52
Volatile Organic Analysis (EPA Method 524.2) TICs.....	55
Water Analysis (General Chemistry).....	56
Metals Analysis.....	57
<b>1823982-10 - MW-16</b>	
Volatile Organic Analysis (EPA Method 524.2).....	58
Volatile Organic Analysis (EPA Method 524.2) TICs.....	61
Water Analysis (General Chemistry).....	62
<b>1823982-11 - MW-7</b>	
Volatile Organic Analysis (EPA Method 524.2).....	63
Volatile Organic Analysis (EPA Method 524.2) TICs.....	66
Water Analysis (General Chemistry).....	67
Metals Analysis.....	68

## Quality Control Reports

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## Table of Contents

<b>Volatile Organic Analysis (EPA Method 524.2)</b>	
Method Blank Analysis.....	69
Laboratory Control Sample.....	72
Precision and Accuracy.....	73
<b>Volatile Organic Analysis (EPA Method 524.2) TICs</b>	
Method Blank Analysis.....	74
<b>Water Analysis (General Chemistry)</b>	
Method Blank Analysis.....	75
Laboratory Control Sample.....	76
Precision and Accuracy.....	77
<b>Metals Analysis</b>	
Method Blank Analysis.....	78
Laboratory Control Sample.....	79
Precision and Accuracy.....	80
<b>Notes</b>	
Notes and Definitions.....	81



Chain of Custody Form



Page 1 of 1

**Required Fields**

Report To: Tidewater, Inc.  
 Client: David Conner  
 Attn: David Conner  
 Street Address: 3761 Allucks Drive  
 City: Powell State: OH Zip: 43065  
 Phone: 626 289 5715 Fax: 614 792 2897  
 Email Address: david.conner@tideh2o.net  
 Submission #: 18-23982

Project Description: JPL-GW Monitoring  
 Project Code: 3Q18  
 Sampler(s): Blaine Tech  
 Thru/By

Client: Tidewater, Inc.  
 Attn: David Conner  
 Address: 3761 Allucks Drive  
 City: Powell State: OH Zip: 43065  
 Are there any tests with holding times? less than or equal to 48 hours?  
 Yes  No  
 \*Standard Turnaround = 10

Sample #	Sample Description	Date	Time	Matrix*
-1	TB-8	08/02/18	0800	GW
-2	MW-5	0722	6W	
-3	DUP-5-3Q18	0732	6W	
-4	MW-15	0806	6W	
-5	MW-6	0845	6W	
-6	DUP-6-3Q18	0855	6W	
-7	MW-8	0947	6W	
-8	DUP-7-3Q18	0957	6W	
-9	MW-10	1028	6W	
-10	MW-16	1050	6W	
-11	MW-7	1127	6W	

Analysis Requested:  
 VOCs EPA 524.2  
 Total Cr (200.8)  
 Perchlorate (EPA 314.0)  
 Chloride, Nitrate, Sulfate (300)  
 Orthophosphate (365.1)  
 Nitrate (353.2)  
 Hexavalent Cr (7196)

Matrix Types: S = Soil SL = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other  
 Turnaround # of working days:  24 Hr Rush  48 Hr Rush  3-5 Day Rush  Normal (10 - Days)  
 Lab TAT Approval: \_\_\_\_\_ \*Additional Charges May Apply

Global ID: \_\_\_\_\_  
 1. Received By: \_\_\_\_\_ Date: 8-2-18 Time: 17:50  
 2. Received By: \_\_\_\_\_ Date: 8-2-18 Time: 5:30  
 3. Received By: \_\_\_\_\_ Date: 8-2-18 Time: 2100

Cost Center:  
 1. Requisition #: \_\_\_\_\_  
 2. Requisition #: \_\_\_\_\_  
 3. Requisition #: \_\_\_\_\_

Comments:  
 PLEASE NOTATE WHICH SAMPLES TO USE FOR  
 QC (MS/MSD)  
 90% Level III and 10% Level IV data validation  
 required: Level IV Notated on C of C  
 NOTE: ALL ANALYSIS REQUIRED TO HAVE  
 CALIBRATION SUMMARIES (inform QC)

BC Laboratories, Inc. 4100 Atlas Court - Bakersfield CA 93308 (661) 327 - 4911 Fax: (661) 327 - 1918 www.bclabs.com

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 2 Of 2

Submission #: 1823982
SHIPPING INFORMATION: Fed Ex, UPS, Ontrac, Hand Delivery, BC Lab Field Service
SHIPPING CONTAINER: Ice Chest, None, Box, Other
FREE LIQUID: YES, NO

Refrigerant: Ice, Blue Ice, None, Other
Custody Seals: Ice Chest, Containers, None

All samples received? Yes, No
All samples containers intact? Yes, No
Description(s) match COC? Yes, No

COC Received: YES, NO
Emissivity: 0.95, Container: PE, Thermometer ID: 208, Date/Time: 8/2/18 2100
Temperature: (A) 1.9 °C, (C) 1.0 °C, Analyst Init: VR

Table with columns for Sample Containers and Sample Numbers (1-10). Rows include various sample types like QT PE UNPRES, QT INORGANIC CHEMICAL METALS, etc.

Comments:
Sample Numbering Completed By: [Signature] Date/Time: 8/2 2124 Rev 21 05/23/2016



BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 2

Submission #: 1823982

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

FREE LIQUID: YES  NO  (W) / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received: YES  NO

Emissivity: 0.95 Container: PB Thermometer ID: 208 Date/Time: 8/2/18 2100

Temperature: (A) 1.3 °C / (C) 1.0 °C Analyst Init: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	5	6	7	8	9	10	11
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PLA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK	A									
40ml VOA VIAL		ABC	ABC	ABC	ABC	ABC	ABC	ABC	ABC	ABC
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/008/808										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.I										
8oz EPA 548										
QT EPA 549										
QT EPA 801SM										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: [Signature] Date/Time: 8/2 2124 Rev 21 05/23/2016

A = Actual / C = Corrected

IS:\WPDev\Ward\PerfectLAB\_DOC\FORMS\SAMRECrev 201

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1823982-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> TB-8-080218 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 08/02/2018 21:00 <b>Sampling Date:</b> 08/02/2018 07:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Blank Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): TB-8-080218 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1823982-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-5 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 08/02/2018 21:00 <b>Sampling Date:</b> 08/02/2018 07:22 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1823982-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> DUP-5-3Q18 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 08/02/2018 21:00 <b>Sampling Date:</b> 08/02/2018 07:32 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): DUP-5-3Q18 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1823982-04</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-15 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 08/02/2018 21:00 <b>Sampling Date:</b> 08/02/2018 08:06 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-15 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1823982-05</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-6 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 08/02/2018 21:00 <b>Sampling Date:</b> 08/02/2018 08:45 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-6 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1823982-06</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> DUP-6-3Q18 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 08/02/2018 21:00 <b>Sampling Date:</b> 08/02/2018 08:55 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): DUP-6-3Q18 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1823982-07</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-8 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 08/02/2018 21:00 <b>Sampling Date:</b> 08/02/2018 09:47 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-8 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1823982-08</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> DUP-7-3Q18 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 08/02/2018 21:00 <b>Sampling Date:</b> 08/02/2018 09:57 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): DUP-7-3Q18 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	---

<b>1823982-09</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-10 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 08/02/2018 21:00 <b>Sampling Date:</b> 08/02/2018 10:28 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-10 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1823982-10</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-16 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 08/02/2018 21:00 <b>Sampling Date:</b> 08/02/2018 10:50 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-16 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1823982-11</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW Monitoring <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-7 <b>Sampled By:</b> Think Hoang of BTST	<b>Receive Date:</b> 08/02/2018 21:00 <b>Sampling Date:</b> 08/02/2018 11:27 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-7 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823982-01	<b>Client Sample Name:</b> JPL-GW Monitoring, TB-8-080218, 8/2/2018 7:00:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823982-01	<b>Client Sample Name:</b> JPL-GW Monitoring, TB-8-080218, 8/2/2018 7:00:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823982-01	<b>Client Sample Name:</b> JPL-GW Monitoring, TB-8-080218, 8/2/2018 7:00:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.4	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/07/18 06:00	08/07/18 19:04	MGC	MS-V5	1	B020924

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823982-01	<b>Client Sample Name:</b> JPL-GW Monitoring, TB-8-080218, 8/2/2018 7:00:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/07/18 06:00	08/07/18 19:04	MGC	MS-V5	1	B020924

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823982-02	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-5, 8/2/2018 7:22:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823982-02	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-5, 8/2/2018 7:22:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823982-02	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-5, 8/2/2018 7:22:00AM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	89.9	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/07/18 06:00	08/07/18 12:56	MGC	MS-V5	1	B020924

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823982-02	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-5, 8/2/2018 7:22:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/07/18 06:00	08/07/18 12:56	MGC	MS-V5	1	B020924

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823982-02	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-5, 8/2/2018 7:22:00AM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/18/18 17:00	08/19/18 21:43	EMW	IC6	1	B022436

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Tidewater Inc.  
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Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823982-02	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-5, 8/2/2018 7:22:00AM, Tinh Hoang							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.6</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	1.0	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	08/02/18 22:12	08/02/18 22:12	SAV	KONE-1	1	B020797
2	EPA-200.8	08/07/18 08:30	08/10/18 01:55	ARD	PE-EL3	1	B020887

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**Reported:** 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823982-03	<b>Client Sample Name:</b> JPL-GW Monitoring, DUP-5-3Q18, 8/2/2018 7:32:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 1823982-03		Client Sample Name: JPL-GW Monitoring, DUP-5-3Q18, 8/2/2018 7:32:00AM, Tinh Hoang						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823982-03	<b>Client Sample Name:</b> JPL-GW Monitoring, DUP-5-3Q18, 8/2/2018 7:32:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.4	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/07/18 06:00	08/07/18 13:19	MGC	MS-V5	1	B020924

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823982-03	<b>Client Sample Name:</b> JPL-GW Monitoring, DUP-5-3Q18, 8/2/2018 7:32:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/07/18 06:00	08/07/18 13:19	MGC	MS-V5	1	B020924

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823982-03	<b>Client Sample Name:</b> JPL-GW Monitoring, DUP-5-3Q18, 8/2/2018 7:32:00AM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/18/18 17:00	08/19/18 21:59	EMW	IC6	1	B022436

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Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823982-03	<b>Client Sample Name:</b> JPL-GW Monitoring, DUP-5-3Q18, 8/2/2018 7:32:00AM, Thanh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.4</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	1.0	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	08/02/18 22:12	08/02/18 22:12	SAV	KONE-1	1	B020797
2	EPA-200.8	08/07/18 08:30	08/10/18 02:09	ARD	PE-EL3	1	B020887

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Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823982-04	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-15, 8/2/2018 8:06:00AM, Thinh Hoang							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>3.5</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>1.0</b>		<b>2</b>

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	08/02/18 22:12	08/02/18 22:12	SAV	KONE-1	1	B020797
2	EPA-200.8	08/07/18 08:30	08/10/18 01:35	ARD	PE-EL3	1	B020887

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Powell, OH 43065

**Reported:** 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	1823982-05	Client Sample Name:	JPL-GW Monitoring, MW-6, 8/2/2018 8:45:00AM, Tinh Hoang						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
<b>Chloroform</b>	<b>0.55</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 1823982-05		Client Sample Name: JPL-GW Monitoring, MW-6, 8/2/2018 8:45:00AM, Tinh Hoang						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.44</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>2.3</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823982-05	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-6, 8/2/2018 8:45:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	96.9	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/07/18 06:00	08/07/18 13:42	MGC	MS-V5	1	B020924

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**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823982-05	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-6, 8/2/2018 8:45:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/07/18 06:00	08/07/18 13:42	MGC	MS-V5	1	B020924

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Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823982-05	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-6, 8/2/2018 8:45:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	3.1	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/18/18 17:00	08/19/18 22:14	EMW	IC6	1	B022436

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**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823982-05	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-6, 8/2/2018 8:45:00AM, Thinh Hoang							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0011	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
<b>Total Recoverable Chromium</b>	<b>56</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>0.94</b>		<b>2</b>

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	08/02/18 22:12	08/02/18 22:12	SAV	KONE-1	1	B020797
2	EPA-200.8	09/20/18 08:50	09/20/18 18:40	ARD	PE-EL3	1	B025173

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Reported: 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823982-06	<b>Client Sample Name:</b> JPL-GW Monitoring, DUP-6-3Q18, 8/2/2018 8:55:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.61</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

Reported: 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823982-06	<b>Client Sample Name:</b> JPL-GW Monitoring, DUP-6-3Q18, 8/2/2018 8:55:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.48</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>2.1</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Powell, OH 43065

Reported: 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823982-06	<b>Client Sample Name:</b> JPL-GW Monitoring, DUP-6-3Q18, 8/2/2018 8:55:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	89.3	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	96.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/07/18 06:00	08/07/18 14:05	MGC	MS-V5	1	B020924

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Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823982-06	<b>Client Sample Name:</b> JPL-GW Monitoring, DUP-6-3Q18, 8/2/2018 8:55:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/07/18 06:00	08/07/18 14:05	MGC	MS-V5	1	B020924

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**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823982-06	<b>Client Sample Name:</b> JPL-GW Monitoring, DUP-6-3Q18, 8/2/2018 8:55:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/18/18 17:00	08/19/18 23:00	EMW	IC6	1	B022436

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Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823982-06	<b>Client Sample Name:</b> JPL-GW Monitoring, DUP-6-3Q18, 8/2/2018 8:55:00AM, Thinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0013	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
<b>Total Recoverable Chromium</b>	<b>54</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>0.94</b>		<b>2</b>

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	08/02/18 22:12	08/02/18 22:12	SAV	KONE-1	1	B020797
2	EPA-200.8	09/20/18 08:50	09/20/18 18:45	ARD	PE-EL3	1	B025173

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Reported: 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823982-07	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-8, 8/2/2018 9:47:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

Reported: 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823982-07	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-8, 8/2/2018 9:47:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
<b>Trichlorofluoromethane</b>	<b>0.27</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Powell, OH 43065

**Reported:** 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823982-07	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-8, 8/2/2018 9:47:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	96.0	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	99.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/07/18 06:00	08/07/18 14:28	MGC	MS-V5	1	B020924

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**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823982-07	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-8, 8/2/2018 9:47:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/07/18 06:00	08/07/18 14:28	MGC	MS-V5	1	B020924

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**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823982-07	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-8, 8/2/2018 9:47:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloride	19	mg/L	0.50	0.077	EPA-300.0	ND		1
Nitrate as N	2.2	mg/L	0.10	0.021	EPA-300.0	ND		1
Sulfate	44	mg/L	1.0	0.13	EPA-300.0	ND		1
Nitrite as N	0.012	mg/L	0.050	0.010	EPA-353.2	0.012	J	2
Perchlorate	3.9	ug/L	4.0	0.58	EPA-314.0	ND	J	3
ortho-Phosphate as P	ND	mg/L	0.050	0.017	EPA-365.1	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/02/18 22:00	08/03/18 04:31	EMW	IC2	1	B020689
2	EPA-353.2	08/03/18 09:11	08/03/18 09:11	MC1	KONE-1	1	B020825
3	EPA-314.0	08/18/18 17:00	08/20/18 19:16	MIG	IC6	1	B022436
4	EPA-365.1	08/03/18 11:08	08/03/18 11:08	MC1	KONE-1	1	B020819

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Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823982-07	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-8, 8/2/2018 9:47:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.00088	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
<b>Total Recoverable Chromium</b>	<b>7.3</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>1.0</b>		<b>2</b>

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	08/02/18 22:12	08/02/18 22:15		SAV	KONE-1	1	B020797
2	EPA-200.8	08/07/18 08:30	08/10/18 02:19		ARD	PE-EL3	1	B020887

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Powell, OH 43065

Reported: 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823982-08	<b>Client Sample Name:</b> JPL-GW Monitoring, DUP-7-3Q18, 8/2/2018 9:57:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

Reported: 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823982-08	<b>Client Sample Name:</b> JPL-GW Monitoring, DUP-7-3Q18, 8/2/2018 9:57:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
<b>Trichlorofluoromethane</b>	<b>0.27</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823982-08	<b>Client Sample Name:</b> JPL-GW Monitoring, DUP-7-3Q18, 8/2/2018 9:57:00AM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.0	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	99.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/07/18 06:00	08/07/18 14:51	MGC	MS-V5	1	B020924

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823982-08	<b>Client Sample Name:</b> JPL-GW Monitoring, DUP-7-3Q18, 8/2/2018 9:57:00AM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/07/18 06:00	08/07/18 14:51	MGC	MS-V5	1	B020924

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Tidewater Inc.  
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Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823982-08	<b>Client Sample Name:</b> JPL-GW Monitoring, DUP-7-3Q18, 8/2/2018 9:57:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	4.2	ug/L	4.0	0.58	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/18/18 17:00	08/20/18 17:26	MIG	IC6	1	B022436

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Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823982-08	<b>Client Sample Name:</b> JPL-GW Monitoring, DUP-7-3Q18, 8/2/2018 9:57:00AM, Thanh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.00082	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
<b>Total Recoverable Chromium</b>	<b>5.3</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>1.0</b>		<b>2</b>

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	08/02/18 22:12	08/02/18 22:15		SAV	KONE-1	1	B020797
2	EPA-200.8	08/07/18 08:30	08/10/18 02:23		ARD	PE-EL3	1	B020887

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Powell, OH 43065

Reported: 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823982-09	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-10, 8/2/2018 10:28:00AM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.28</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 1823982-09		Client Sample Name: JPL-GW Monitoring, MW-10, 8/2/2018 10:28:00AM, Tinh Hoang						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.31</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>2.3</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc.  
3761 Attucks Drive  
Powell, OH 43065

Reported: 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823982-09	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-10, 8/2/2018 10:28:00AM, Thinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.2	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	102	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	102	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/07/18 06:00	08/07/18 15:14	MGC	MS-V5	1	B020924

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Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823982-09	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-10, 8/2/2018 10:28:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/07/18 06:00	08/07/18 15:14	MGC	MS-V5	1	B020924

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**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823982-09	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-10, 8/2/2018 10:28:00AM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	3.1	ug/L	4.0	0.58	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	08/18/18 17:00	08/19/18 23:46	EMW	IC6	1	B022436

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Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823982-09	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-10, 8/2/2018 10:28:00AM, Tinh Hoang							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0028	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	18	ug/L	3.0	0.50	EPA-200.8	1.0		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	08/02/18 22:12	08/02/18 22:15	SAV	KONE-1	1	B020797
2	EPA-200.8	08/07/18 08:30	08/10/18 02:26	ARD	PE-EL3	1	B020887

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3761 Attucks Drive  
Powell, OH 43065

Reported: 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823982-10	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-16, 8/2/2018 10:50:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
<b>Bromodichloromethane</b>	<b>0.50</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.20</b>	<b>EPA-524.2</b>	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.96</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc.
3761 Attucks Drive
Powell, OH 43065

Reported: 09/21/2018 15:16
Project: JPL- GW Monitoring Wells
Project Number: 3Q18
Project Manager: David Conner

Volatile Organic Analysis (EPA Method 524.2)

Table with 2 columns: BCL Sample ID (1823982-10) and Client Sample Name (JPL-GW Monitoring, MW-16, 8/2/2018 10:50:00AM, Tinh Hoang)

Main data table with 9 columns: Constituent, Result, Units, PQL, MDL, Method, MB Bias, Lab Qualls, Run #. Lists various chemical compounds and their analysis results.

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823982-10	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-16, 8/2/2018 10:50:00AM, Think Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.5	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	99.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/07/18 06:00	08/07/18 19:27	MGC	MS-V5	1	B020924

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Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823982-10	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-16, 8/2/2018 10:50:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/07/18 06:00	08/07/18 19:27	MGC	MS-V5	1	B020924

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Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823982-10	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-16, 8/2/2018 10:50:00AM, Tinh Hoang
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloride	96	mg/L	0.50	0.077	EPA-300.0	ND		1
Nitrate as N	1.5	mg/L	0.10	0.021	EPA-300.0	ND		1
Sulfate	53	mg/L	1.0	0.13	EPA-300.0	ND		1
Nitrite as N	0.017	mg/L	0.050	0.010	EPA-353.2	0.012	J	2
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		3
ortho-Phosphate as P	0.15	mg/L	0.050	0.017	EPA-365.1	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/02/18 22:00	08/03/18 04:51	EMW	IC2	1	B020689
2	EPA-353.2	08/03/18 09:11	08/03/18 09:11	MC1	KONE-1	1	B020825
3	EPA-314.0	08/18/18 17:00	08/20/18 00:01	EMW	IC6	1	B022436
4	EPA-365.1	08/03/18 11:08	08/03/18 11:08	MC1	KONE-1	1	B020819

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Powell, OH 43065

Reported: 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823982-11	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-7, 8/2/2018 11:27:00AM, Tinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>3.2</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823982-11	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-7, 8/2/2018 11:27:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1823982-11	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-7, 8/2/2018 11:27:00AM, Tinh Hoang
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.8	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	97.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/07/18 06:00	08/07/18 19:50	MGC	MS-V5	1	B020924

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Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1823982-11	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-7, 8/2/2018 11:27:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	08/07/18 06:00	08/07/18 19:50	MGC	MS-V5	1	B020924

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Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1823982-11	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-7, 8/2/2018 11:27:00AM, Tinh Hoang
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloride	94	mg/L	0.50	0.077	EPA-300.0	ND		1
Nitrate as N	1.4	mg/L	0.10	0.021	EPA-300.0	ND		1
Sulfate	52	mg/L	1.0	0.13	EPA-300.0	ND		1
Nitrite as N	0.012	mg/L	0.050	0.010	EPA-353.2	0.012	J	2
Perchlorate	ND	ug/L	4.0	0.58	EPA-314.0	ND		3
ortho-Phosphate as P	0.073	mg/L	0.050	0.017	EPA-365.1	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	08/02/18 22:00	08/03/18 05:12	EMW	IC2	1	B020689
2	EPA-353.2	08/03/18 09:11	08/03/18 09:11	MC1	KONE-1	1	B020825
3	EPA-314.0	08/18/18 17:00	08/20/18 00:17	EMW	IC6	1	B022436
4	EPA-365.1	08/03/18 11:08	08/03/18 11:08	MC1	KONE-1	1	B020819

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Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1823982-11	<b>Client Sample Name:</b> JPL-GW Monitoring, MW-7, 8/2/2018 11:27:00AM, Tinh Hoang							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>670</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	1.0		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	08/02/18 22:12	08/02/18 22:15	SAV	KONE-1	1	B020797
2	EPA-200.8	08/07/18 08:30	08/10/18 02:30	ARD	PE-EL3	1	B020887

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Reported: 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020924</b>						
Benzene	B020924-BLK1	ND	ug/L	0.50	0.11	
Bromobenzene	B020924-BLK1	ND	ug/L	0.50	0.15	
Bromochloromethane	B020924-BLK1	ND	ug/L	0.50	0.27	
Bromodichloromethane	B020924-BLK1	ND	ug/L	0.50	0.20	
Bromoform	B020924-BLK1	ND	ug/L	0.50	0.46	
Bromomethane	B020924-BLK1	ND	ug/L	0.50	0.20	
n-Butylbenzene	B020924-BLK1	ND	ug/L	0.50	0.15	
sec-Butylbenzene	B020924-BLK1	ND	ug/L	0.50	0.13	
tert-Butylbenzene	B020924-BLK1	ND	ug/L	0.50	0.18	
Carbon tetrachloride	B020924-BLK1	ND	ug/L	0.50	0.17	
Chlorobenzene	B020924-BLK1	ND	ug/L	0.50	0.14	
Chloroethane	B020924-BLK1	ND	ug/L	0.50	0.17	
Chloroform	B020924-BLK1	ND	ug/L	0.50	0.14	
Chloromethane	B020924-BLK1	ND	ug/L	0.50	0.11	
2-Chlorotoluene	B020924-BLK1	ND	ug/L	0.50	0.14	
4-Chlorotoluene	B020924-BLK1	ND	ug/L	0.50	0.093	
Dibromochloromethane	B020924-BLK1	ND	ug/L	0.50	0.22	
1,2-Dibromo-3-chloropropane	B020924-BLK1	ND	ug/L	1.0	0.89	
1,2-Dibromoethane	B020924-BLK1	ND	ug/L	0.50	0.22	
Dibromomethane	B020924-BLK1	ND	ug/L	0.50	0.23	
1,2-Dichlorobenzene	B020924-BLK1	ND	ug/L	0.50	0.21	
1,3-Dichlorobenzene	B020924-BLK1	ND	ug/L	0.50	0.16	
1,4-Dichlorobenzene	B020924-BLK1	ND	ug/L	0.50	0.15	
Dichlorodifluoromethane	B020924-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethane	B020924-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloroethane	B020924-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	B020924-BLK1	ND	ug/L	0.50	0.27	
cis-1,2-Dichloroethene	B020924-BLK1	ND	ug/L	0.50	0.27	
trans-1,2-Dichloroethene	B020924-BLK1	ND	ug/L	0.50	0.17	
1,2-Dichloropropane	B020924-BLK1	ND	ug/L	0.50	0.15	
1,3-Dichloropropane	B020924-BLK1	ND	ug/L	0.50	0.13	
2,2-Dichloropropane	B020924-BLK1	ND	ug/L	0.50	0.18	
1,1-Dichloropropene	B020924-BLK1	ND	ug/L	0.50	0.19	
cis-1,3-Dichloropropene	B020924-BLK1	ND	ug/L	0.50	0.14	

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Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020924</b>						
trans-1,3-Dichloropropene	B020924-BLK1	ND	ug/L	0.50	0.13	
Ethylbenzene	B020924-BLK1	ND	ug/L	0.50	0.15	
Hexachlorobutadiene	B020924-BLK1	ND	ug/L	0.50	0.20	
Isopropylbenzene	B020924-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	B020924-BLK1	ND	ug/L	0.50	0.14	
Methylene chloride	B020924-BLK1	ND	ug/L	0.50	0.21	
Methyl t-butyl ether	B020924-BLK1	ND	ug/L	0.50	0.14	
Naphthalene	B020924-BLK1	ND	ug/L	0.50	0.16	
n-Propylbenzene	B020924-BLK1	ND	ug/L	0.50	0.12	
Styrene	B020924-BLK1	ND	ug/L	0.50	0.12	
1,1,1,2-Tetrachloroethane	B020924-BLK1	ND	ug/L	0.50	0.21	
1,1,1,2,2-Tetrachloroethane	B020924-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	B020924-BLK1	ND	ug/L	0.50	0.23	
Toluene	B020924-BLK1	ND	ug/L	0.50	0.17	
1,2,3-Trichlorobenzene	B020924-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trichlorobenzene	B020924-BLK1	ND	ug/L	0.50	0.15	
1,1,1-Trichloroethane	B020924-BLK1	ND	ug/L	0.50	0.21	
1,1,2-Trichloroethane	B020924-BLK1	ND	ug/L	0.50	0.21	
Trichloroethene	B020924-BLK1	ND	ug/L	0.50	0.19	
Trichlorofluoromethane	B020924-BLK1	ND	ug/L	0.50	0.14	
1,2,3-Trichloropropane	B020924-BLK1	ND	ug/L	1.0	0.78	
1,1,2-Trichloro-1,2,2-trifluoroethane	B020924-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trimethylbenzene	B020924-BLK1	ND	ug/L	0.50	0.17	
1,3,5-Trimethylbenzene	B020924-BLK1	ND	ug/L	0.50	0.14	
Vinyl chloride	B020924-BLK1	ND	ug/L	0.50	0.18	
Acetone	B020924-BLK1	ND	ug/L	10	6.6	
Acrylonitrile	B020924-BLK1	ND	ug/L	5.0	1.5	
Allyl chloride	B020924-BLK1	ND	ug/L	5.0	0.47	
t-Amyl Methyl ether	B020924-BLK1	ND	ug/L	0.50	0.19	
t-Butyl alcohol	B020924-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	B020924-BLK1	ND	ug/L	1.0	0.48	
trans-1,4-Dichloro-2-butene	B020924-BLK1	ND	ug/L	5.0	1.8	
Diethyl ether	B020924-BLK1	ND	ug/L	2.0	0.33	
Ethyl methacrylate	B020924-BLK1	ND	ug/L	4.0	1.3	

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**Reported:** 09/21/2018 15:16  
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**Project Number:** 3Q18  
**Project Manager:** David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020924</b>						
Ethyl t-butyl ether	B020924-BLK1	ND	ug/L	0.50	0.32	
Hexachloroethane	B020924-BLK1	ND	ug/L	0.50	0.11	
2-Hexanone	B020924-BLK1	ND	ug/L	10	5.0	
Methacrylonitrile	B020924-BLK1	ND	ug/L	10	2.3	
Methyl ethyl ketone	B020924-BLK1	ND	ug/L	10	3.3	
Methyl iodide	B020924-BLK1	ND	ug/L	2.0	1.1	
Methyl isobutyl ketone	B020924-BLK1	ND	ug/L	10	2.4	
Methyl methacrylate	B020924-BLK1	ND	ug/L	5.0	1.2	
Pentachloroethane	B020924-BLK1	ND	ug/L	2.0	0.63	
Propionitrile	B020924-BLK1	ND	ug/L	20	6.2	
Tetrahydrofuran	B020924-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	B020924-BLK1	ND	ug/L	0.50	0.34	
o-Xylene	B020924-BLK1	ND	ug/L	0.50	0.13	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>B020924-BLK1</b>	<b>91.6</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>B020924-BLK1</b>	<b>99.0</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>B020924-BLK1</b>	<b>98.5</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		

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Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B020924</b>										
Benzene	B020924-BS1	LCS	28.350	25.000	ug/L	113		70 - 130		
Bromodichloromethane	B020924-BS1	LCS	26.450	25.000	ug/L	106		70 - 130		
Chlorobenzene	B020924-BS1	LCS	24.980	25.000	ug/L	99.9		70 - 130		
Chloroethane	B020924-BS1	LCS	28.870	25.000	ug/L	115		70 - 130		
1,4-Dichlorobenzene	B020924-BS1	LCS	25.050	25.000	ug/L	100		70 - 130		
1,1-Dichloroethane	B020924-BS1	LCS	28.670	25.000	ug/L	115		70 - 130		
1,1-Dichloroethene	B020924-BS1	LCS	28.530	25.000	ug/L	114		70 - 130		
Toluene	B020924-BS1	LCS	26.470	25.000	ug/L	106		70 - 130		
Trichloroethene	B020924-BS1	LCS	27.340	25.000	ug/L	109		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B020924-BS1	LCS	10.410	10.000	ug/L	104		75 - 125		
Toluene-d8 (Surrogate)	B020924-BS1	LCS	9.9600	10.000	ug/L	99.6		80 - 120		
4-Bromofluorobenzene (Surrogate)	B020924-BS1	LCS	9.4400	10.000	ug/L	94.4		80 - 120		

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Reported: 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery		Lab Quals
								RPD	Percent	
<b>QC Batch ID: B020924</b>										
Used client sample: Y - Description: MW-5, 08/02/2018 07:22										
Benzene	MS	1823982-02	ND	27.880	25.000	ug/L		112		70 - 130
	MSD	1823982-02	ND	28.520	25.000	ug/L	2.3	114	20	70 - 130
Bromodichloromethane	MS	1823982-02	ND	26.810	25.000	ug/L		107		70 - 130
	MSD	1823982-02	ND	26.110	25.000	ug/L	2.6	104	20	70 - 130
Chlorobenzene	MS	1823982-02	ND	26.160	25.000	ug/L		105		70 - 130
	MSD	1823982-02	ND	26.540	25.000	ug/L	1.4	106	20	70 - 130
Chloroethane	MS	1823982-02	ND	29.790	25.000	ug/L		119		70 - 130
	MSD	1823982-02	ND	28.770	25.000	ug/L	3.5	115	20	70 - 130
1,4-Dichlorobenzene	MS	1823982-02	ND	27.360	25.000	ug/L		109		70 - 130
	MSD	1823982-02	ND	27.960	25.000	ug/L	2.2	112	20	70 - 130
1,1-Dichloroethane	MS	1823982-02	ND	28.600	25.000	ug/L		114		70 - 130
	MSD	1823982-02	ND	28.530	25.000	ug/L	0.2	114	20	70 - 130
1,1-Dichloroethene	MS	1823982-02	ND	28.140	25.000	ug/L		113		70 - 130
	MSD	1823982-02	ND	28.050	25.000	ug/L	0.3	112	20	70 - 130
Toluene	MS	1823982-02	ND	26.420	25.000	ug/L		106		70 - 130
	MSD	1823982-02	ND	26.060	25.000	ug/L	1.4	104	20	70 - 130
Trichloroethene	MS	1823982-02	ND	26.990	25.000	ug/L		108		70 - 130
	MSD	1823982-02	ND	25.930	25.000	ug/L	4.0	104	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1823982-02	ND	9.9600	10.000	ug/L		99.6		75 - 125
	MSD	1823982-02	ND	9.9600	10.000	ug/L	0	99.6		75 - 125
Toluene-d8 (Surrogate)	MS	1823982-02	ND	9.8300	10.000	ug/L		98.3		80 - 120
	MSD	1823982-02	ND	9.8500	10.000	ug/L	0.2	98.5		80 - 120
4-Bromofluorobenzene (Surrogate)	MS	1823982-02	ND	9.8900	10.000	ug/L		98.9		80 - 120
	MSD	1823982-02	ND	10.280	10.000	ug/L	3.9	103		80 - 120

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**Reported:** 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020924</b>						
Chloroacetonitrile	B020924-BLK1	0	ug/L			
1-Chlorobutane	B020924-BLK1	0	ug/L			
1,1-Dichloropropanone	B020924-BLK1	0	ug/L			
Methyl acrylate	B020924-BLK1	0	ug/L			
Nitrobenzene	B020924-BLK1	0	ug/L			
2-Nitropropane	B020924-BLK1	0	ug/L			

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**Reported:** 09/21/2018 15:16  
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**Project Number:** 3Q18  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020689</b>						
Chloride	B020689-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B020689-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B020689-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B020819</b>						
ortho-Phosphate as P	B020819-BLK1	ND	mg/L	0.050	0.017	
<b>QC Batch ID: B020825</b>						
Nitrite as N	B020825-BLK1	0.011851	mg/L	0.050	0.010	J
<b>QC Batch ID: B022436</b>						
Perchlorate	B022436-BLK1	ND	ug/L	4.0	0.58	

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Project Number: 3Q18  
Project Manager: David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B020689</b>										
Chloride	B020689-BS1	LCS	51.354	50.000	mg/L	103		90 - 110		
Nitrate as N	B020689-BS1	LCS	4.9200	5.0000	mg/L	98.4		90 - 110		
Sulfate	B020689-BS1	LCS	97.919	100.00	mg/L	97.9		90 - 110		
<b>QC Batch ID: B020819</b>										
ortho-Phosphate as P	B020819-BS1	LCS	0.20403	0.20000	mg/L	102		90 - 110		
<b>QC Batch ID: B020825</b>										
Nitrite as N	B020825-BS1	LCS	0.48326	0.50000	mg/L	96.7		90 - 110		
<b>QC Batch ID: B022436</b>										
Perchlorate	B022436-BS1	LCS	9.2736	10.000	ug/L	92.7		85 - 115		

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Reported: 09/21/2018 15:16  
Project: JPL- GW Monitoring Wells  
Project Number: 3Q18  
Project Manager: David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B020689</b>		Used client sample: N								
Chloride	DUP	1823980-02	78.511	78.163		mg/L	0.4		10	
	MS	1823980-02	78.511	131.03	50.505	mg/L		104		80 - 120
	MSD	1823980-02	78.511	130.88	50.505	mg/L	0.1	104	10	80 - 120
Nitrate as N	DUP	1823980-02	ND	ND		mg/L			10	
	MS	1823980-02	ND	5.2586	5.0505	mg/L		104		80 - 120
	MSD	1823980-02	ND	5.2495	5.0505	mg/L	0.2	104	10	80 - 120
Sulfate	DUP	1823980-02	ND	ND		mg/L			10	
	MS	1823980-02	ND	104.95	101.01	mg/L		104		80 - 120
	MSD	1823980-02	ND	104.81	101.01	mg/L	0.1	104	10	80 - 120
<b>QC Batch ID: B020819</b>		Used client sample: Y - Description: MW-8, 08/02/2018 09:47								
ortho-Phosphate as P	DUP	1823982-07	ND	ND		mg/L			10	
	MS	1823982-07	ND	0.22582	0.21053	mg/L		107		90 - 110
	MSD	1823982-07	ND	0.22643	0.21053	mg/L	0.3	108	10	90 - 110
<b>QC Batch ID: B020825</b>		Used client sample: Y - Description: MW-8, 08/02/2018 09:47								
Nitrite as N	DUP	1823982-07	0.012091	0.012768		mg/L	5.4		10	J
	MS	1823982-07	0.012091	0.51450	0.52632	mg/L		95.5		90 - 110
	MSD	1823982-07	0.012091	0.51022	0.52632	mg/L	0.8	94.6	10	90 - 110
<b>QC Batch ID: B022436</b>		Used client sample: Y - Description: MW-12-3, 08/01/2018 11:40								
Perchlorate	DUP	1823821-08	1.8454	1.5310		ug/L	18.6		15	J,A02
	MS	1823821-08	1.8454	8.8792	10.101	ug/L		69.6		80 - 120 Q03
	MSD	1823821-08	1.8454	9.0999	10.101	ug/L	2.5	71.8	15	80 - 120 Q03

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Powell, OH 43065

**Reported:** 09/21/2018 15:16  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 3Q18  
**Project Manager:** David Conner

### Metals Analysis

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B020797</b>						
Hexavalent Chromium	B020797-BLK1	ND	mg/L	0.0020	0.00070	
<b>QC Batch ID: B020887</b>						
Total Recoverable Chromium	B020887-BLK1	1.0070	ug/L	3.0	0.50	J
<b>QC Batch ID: B025173</b>						
Total Recoverable Chromium	B025173-BLK1	0.93600	ug/L	3.0	0.50	J

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### Metals Analysis

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B020797</b>										
Hexavalent Chromium	B020797-BS1	LCS	0.050961	0.050000	mg/L	102		85 - 115		
<b>QC Batch ID: B020887</b>										
Total Recoverable Chromium	B020887-BS1	LCS	44.670	40.000	ug/L	112		85 - 115		
<b>QC Batch ID: B025173</b>										
Total Recoverable Chromium	B025173-BS1	LCS	37.667	40.000	ug/L	94.2		85 - 115		

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### Metals Analysis

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B020797</b>		Used client sample: Y - Description: MW-15, 08/02/2018 08:06								
Hexavalent Chromium	DUP	1823982-04	ND	ND		mg/L			10	
	MS	1823982-04	ND	0.054366	0.052632	mg/L		103		85 - 115
	MSD	1823982-04	ND	0.054536	0.052632	mg/L	0.3	104	10	85 - 115
<b>QC Batch ID: B020887</b>		Used client sample: Y - Description: MW-15, 08/02/2018 08:06								
Total Recoverable Chromium	DUP	1823982-04	3.5300	3.8060		ug/L	7.5		20	
	MS	1823982-04	3.5300	46.431	40.000	ug/L		107		70 - 130
	MSD	1823982-04	3.5300	43.860	40.000	ug/L	5.7	101	20	70 - 130
<b>QC Batch ID: B025173</b>		Used client sample: N								
Total Recoverable Chromium	DUP	1829146-06	0.84600	0.78800		ug/L	7.1		20	J
	MS	1829146-06	0.84600	36.312	40.000	ug/L		88.7		70 - 130
	MSD	1829146-06	0.84600	35.959	40.000	ug/L	1.0	87.8	20	70 - 130

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**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.