TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

# Analytical Report for

# Northwest Pipe

## ASL Report #: R2508
## Project ID: 682722.GW.05

**Attn: Gretchen Gee**

cc:

Jamie.beckett@ch2m.com

Authorized and Released By:

Kathy McKinley

Laboratory Project Manager
Kathy McKinley
*541.243.0974*
*August 08, 2017*

All analyses performed by TestAmerica ASL are clearly indicated. Any subcontracted analyses are included as appended reports as received from the subcontracted laboratory. The results included in this report only relate to the samples listed on the following Sample Cross-Reference page. This report shall not be reproduced except in full, without the written approval of the laboratory.

Any unusual difficulties encountered during the analysis of your samples are discussed in the attached case narratives.

Accredited in accordance with NELAP: Oregon (100022)

TestAmerica ASL
1100 NE Circle Boulevard, Suite 310
Corvallis, OR 97330
1-541-243-0980
www.testamericainc.com

## Sample Receipt Comments

We certify that the test results meet all NELAP requirements.

## Sample Cross-Reference

| Sample ID | Client Sample ID | Date/Time Collected | Date Received |
|---|---|---|---|
| R250801 | TRIPBLANK-072717-03 | 07/27/17 08:00 | 07/28/17 |
| R250802 | MW-06-072717-0 | 07/27/17 10:15 | 07/28/17 |
| R250803 | MW-100-072717-0 | 07/27/17 10:30 | 07/28/17 |
| R250804 | MW-03-072717-0 | 07/27/17 12:25 | 07/28/17 |
| R250805 | MW-05-072717-0 | 07/27/17 14:10 | 07/28/17 |

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*Corvallis, OR 97330*
*Tel 1-866-785-LABS*

# CASE NARRATIVE
# GC/MS VOLATILES ANALYSIS

**Project:** Northwest Pipe **ASL SDG#:** R2508

With the exceptions noted as flags, footnotes, or detailed in the section below; standard operating procedures were followed in the analysis of the samples and no problems were encountered or anomalies observed.

All laboratory quality control samples were within established control limits, with any exceptions noted below, or in the associated QC summary forms.

Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. For diluted samples, the reporting limits are adjusted for the dilution required.

Calculations are performed before rounding to minimize errors in calculated values.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the section below, or in the sample receipt documentation.

**Method(s):**
SW8260C: SW5030

# TestAmerica ASL

**Client Information**

**Client Sample ID:** **TRIPBLANK-072717-03**

Project Name: Northwest Pipe
Sample Date: 07/27/17
Sample Time: 08:00
Type: Grab
Matrix: Water

**Lab Information**

**Lab Sample ID:** **R250801**

Date Received: 07/28/17
Dilution Factor: 1
Report Revision No.: 0

| Analyte | CAS# | DL | RL | Sample Result | Qualifier | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| **GC/MS Volatiles** | | | | | | | | |
| cis-1,2-Dichloroethene | 156-59-2 | 0.15 | 0.50 | 0.15 | U | ug/L | SW8260C | 07/28/17 |
| Trichloroethene (TCE) | 79-01-6 | 0.15 | 0.50 | 0.15 | U | ug/L | SW8260C | 07/28/17 |

| Surrogate | % Recovery | Control Limits | Qualifier |
|---|---|---|---|
| Dibromofluoromethane | 94 | 70-130 | |
| 1,2-Dichloroethane-d4 | 100 | 70-130 | |
| Toluene-d8 | 96 | 70-130 | |
| 4-Bromofluorobenzene | 95 | 70-130 | |

U=Not detected and reported as less than detection limit
J=Estimated value below reporting limit
E=Estimated value above calibration range
*=See case narrative
B=Analyte detected in blank



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**Client Information**

**Client Sample ID:** WB1-0728

Project Name: Northwest Pipe
Sample Date: N/A
Sample Time: N/A
Type: QC
Matrix: Water

**Lab Information**

**Lab Sample ID:** WB1-0728

Date Received: N/A
Dilution Factor: 1
Report Revision No.: 0

| Analyte | CAS# | DL | RL | Sample Result | Qualifier | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| **GC/MS Volatiles** | | | | | | | | |
| cis-1,2-Dichloroethene | 156-59-2 | 0.15 | 0.50 | 0.15 | U | ug/L | SW8260C | 07/28/17 |
| Trichloroethene (TCE) | 79-01-6 | 0.15 | 0.50 | 0.15 | U | ug/L | SW8260C | 07/28/17 |

| Surrogate | % Recovery | Control Limits | Qualifier |
|---|---|---|---|
| Dibromofluoromethane | 105 | 70-130 | |
| 1,2-Dichloroethane-d4 | 112 | 70-130 | |
| Toluene-d8 | 105 | 70-130 | |
| 4-Bromofluorobenzene | 97 | 70-130 | |

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E=Estimated value above calibration range
*=See case narrative
B=Analyte detected in blank



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# TestAmerica ASL

**Client Information**

Project Name: Northwest Pipe
Type: QC
Matrix: Water

**Lab Information**

**LCS ID: BS1W0728**

Report Revision No.: 0
Dilution Factor: 1

| Analyte | CAS# | Spike Amount | Sample Result | Units | %Recovery | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **GC/MS Volatiles** | | | | | | | |
| cis-1,2-Dichloroethene | 156-59-2 | 20.0 | 19.5 | ug/L | 98 | SW8260C | 07/28/17 |
| Trichloroethene (TCE) | 79-01-6 | 20.0 | 18.2 | ug/L | 91 | SW8260C | 07/28/17 |

| Surrogate | % Recovery | Control Limits | Qualifier |
|---|---|---|---|
| Dibromofluoromethane | 99 | 70-130 | |
| 1,2-Dichloroethane-d4 | 102 | 70-130 | |
| Toluene-d8 | 101 | 70-130 | |
| 4-Bromofluorobenzene | 98 | 70-130 | |

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# CASE NARRATIVE
# GC/MS VOLATILES ANALYSIS

**Project:** Northwest Pipe **ASL SDG#:** R2508

With the exceptions noted as flags, footnotes, or detailed in the section below; standard operating procedures were followed in the analysis of the samples and no problems were encountered or anomalies observed.

All laboratory quality control samples were within established control limits, with any exceptions noted below, or in the associated QC summary forms.

Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. For diluted samples, the reporting limits are adjusted for the dilution required.

Calculations are performed before rounding to minimize errors in calculated values.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the section below, or in the sample receipt documentation.

**Method(s):**
SW8260C: SW5030

# TestAmerica ASL

## Client Information

**Client Sample ID:** **MW-06-072717-0**

Project Name: Northwest Pipe
Sample Date: 07/27/17
Sample Time: 10:15
Type: Grab
Matrix: Water

## Lab Information

**Lab Sample ID:** **R250802**

Date Received: 07/28/17
Dilution Factor: 5
Report Revision No.: 0

| Analyte | CAS# | DL | RL | Sample Result | Qualifier | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| **GC/MS Volatiles** | | | | | | | | |
| Vinyl Chloride | 75-01-4 | 0.75 | 2.50 | 18.3 | | ug/L | SW8260C | 07/28/17 |
| cis-1,2-Dichloroethene | 156-59-2 | 0.75 | 2.50 | 1230 | E | ug/L | SW8260C | 07/28/17 |
| Trichloroethene (TCE) | 79-01-6 | 0.75 | 2.50 | 128 | | ug/L | SW8260C | 07/28/17 |
| Tetrachloroethene (PCE) | 127-18-4 | 0.75 | 2.50 | 853 | E | ug/L | SW8260C | 07/28/17 |

| Surrogate | % Recovery | Control Limits | Qualifier |
|---|---|---|---|
| Dibromofluoromethane | 99 | 70-130 | |
| 1,2-Dichloroethane-d4 | 107 | 70-130 | |
| Toluene-d8 | 98 | 70-130 | |
| 4-Bromofluorobenzene | 95 | 70-130 | |

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J=Estimated value below reporting limit
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B=Analyte detected in blank



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# TestAmerica ASL

**Client Information**

**Client Sample ID:** **MW-06-072717-0DL**

Project Name: Northwest Pipe
Sample Date: 07/27/17
Sample Time: 10:15
Type: Grab
Matrix: Water

**Lab Information**

**Lab Sample ID:** **R250802DL**

Date Received: 07/28/17
Dilution Factor: 100
Report Revision No.: 0

| Analyte | CAS# | DL | RL | Sample Result | Qualifier | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| **GC/MS Volatiles** | | | | | | | | |
| Vinyl Chloride | 75-01-4 | 15.0 | 50.0 | 17.7 | J | ug/L | SW8260C | 07/28/17 |
| cis-1,2-Dichloroethene | 156-59-2 | 15.0 | 50.0 | 1080 | | ug/L | SW8260C | 07/28/17 |
| Trichloroethene (TCE) | 79-01-6 | 15.0 | 50.0 | 130 | | ug/L | SW8260C | 07/28/17 |
| Tetrachloroethene (PCE) | 127-18-4 | 15.0 | 50.0 | 810 | | ug/L | SW8260C | 07/28/17 |

| Surrogate | % Recovery | Control Limits | Qualifier |
|---|---|---|---|
| Dibromofluoromethane | 100 | 70-130 | |
| 1,2-Dichloroethane-d4 | 107 | 70-130 | |
| Toluene-d8 | 99 | 70-130 | |
| 4-Bromofluorobenzene | 95 | 70-130 | |

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J=Estimated value below reporting limit
E=Estimated value above calibration range
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B=Analyte detected in blank



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# TestAmerica ASL

**Client Information**

**Client Sample ID:** **MW-100-072717-0**

Project Name: Northwest Pipe
Sample Date: 07/27/17
Sample Time: 10:30
Type: Grab
Matrix: Water

**Lab Information**

**Lab Sample ID:** **R250803**

Date Received: 07/28/17
Dilution Factor: 5
Report Revision No.: 0

| Analyte | CAS# | DL | RL | Sample Result | Qualifier | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| **GC/MS Volatiles** | | | | | | | | |
| Vinyl Chloride | 75-01-4 | 0.75 | 2.50 | 22.5 | | ug/L | SW8260C | 07/28/17 |
| cis-1,2-Dichloroethene | 156-59-2 | 0.75 | 2.50 | 1280 | E | ug/L | SW8260C | 07/28/17 |
| Trichloroethene (TCE) | 79-01-6 | 0.75 | 2.50 | 123 | | ug/L | SW8260C | 07/28/17 |
| Tetrachloroethene (PCE) | 127-18-4 | 0.75 | 2.50 | 790 | E | ug/L | SW8260C | 07/28/17 |

| Surrogate | % Recovery | Control Limits | Qualifier |
|---|---|---|---|
| Dibromofluoromethane | 104 | 70-130 | |
| 1,2-Dichloroethane-d4 | 111 | 70-130 | |
| Toluene-d8 | 100 | 70-130 | |
| 4-Bromofluorobenzene | 96 | 70-130 | |

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E=Estimated value above calibration range
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B=Analyte detected in blank



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# TestAmerica ASL

**Client Information**

**Client Sample ID:** MW-100-072717-0DL

Project Name: Northwest Pipe
Sample Date: 07/27/17
Sample Time: 10:30
Type: Grab
Matrix: Water

**Lab Information**

**Lab Sample ID:** R250803DL

Date Received: 07/28/17
Dilution Factor: 100
Report Revision No.: 0

| Analyte | CAS# | DL | RL | Sample Result | Qualifier | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| **GC/MS Volatiles** | | | | | | | | |
| Vinyl Chloride | 75-01-4 | 15.0 | 50.0 | 20.4 | J | ug/L | SW8260C | 07/28/17 |
| cis-1,2-Dichloroethene | 156-59-2 | 15.0 | 50.0 | 1080 | | ug/L | SW8260C | 07/28/17 |
| Trichloroethene (TCE) | 79-01-6 | 15.0 | 50.0 | 120 | | ug/L | SW8260C | 07/28/17 |
| Tetrachloroethene (PCE) | 127-18-4 | 15.0 | 50.0 | 728 | | ug/L | SW8260C | 07/28/17 |

| Surrogate | % Recovery | Control Limits | Qualifier |
|---|---|---|---|
| Dibromofluoromethane | 98 | 70-130 | |
| 1,2-Dichloroethane-d4 | 104 | 70-130 | |
| Toluene-d8 | 97 | 70-130 | |
| 4-Bromofluorobenzene | 93 | 70-130 | |

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J=Estimated value below reporting limit
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B=Analyte detected in blank



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# TestAmerica ASL

**Client Information**

**Client Sample ID:** **MW-03-072717-0**

Project Name: Northwest Pipe
Sample Date: 07/27/17
Sample Time: 12:25
Type: Grab
Matrix: Water

**Lab Information**

**Lab Sample ID:** **R250804**

Date Received: 07/28/17
Dilution Factor: 5
Report Revision No.: 0

| Analyte | CAS# | DL | RL | Sample Result | Qualifier | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| **GC/MS Volatiles** | | | | | | | | |
| Vinyl Chloride | 75-01-4 | 0.75 | 2.50 | 29.9 | | ug/L | SW8260C | 07/28/17 |
| cis-1,2-Dichloroethene | 156-59-2 | 0.75 | 2.50 | 764 | E | ug/L | SW8260C | 07/28/17 |
| Trichloroethene (TCE) | 79-01-6 | 0.75 | 2.50 | 209 | | ug/L | SW8260C | 07/28/17 |
| Tetrachloroethene (PCE) | 127-18-4 | 0.75 | 2.50 | 581 | E | ug/L | SW8260C | 07/28/17 |

| Surrogate | % Recovery | Control Limits | Qualifier |
|---|---|---|---|
| Dibromofluoromethane | 101 | 70-130 | |
| 1,2-Dichloroethane-d4 | 107 | 70-130 | |
| Toluene-d8 | 98 | 70-130 | |
| 4-Bromofluorobenzene | 91 | 70-130 | |

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E=Estimated value above calibration range
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B=Analyte detected in blank



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# TestAmerica ASL

## Client Information

**Client Sample ID:** **MW-03-072717-0DL**

Project Name: Northwest Pipe
Sample Date: 07/27/17
Sample Time: 12:25
Type: Grab
Matrix: Water

## Lab Information

**Lab Sample ID:** **R250804DL**

Date Received: 07/28/17
Dilution Factor: 100
Report Revision No.: 0

| Analyte | CAS# | DL | RL | Sample Result | Qualifier | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| **GC/MS Volatiles** | | | | | | | | |
| Vinyl Chloride | 75-01-4 | 15.0 | 50.0 | 32.6 | J | ug/L | SW8260C | 07/28/17 |
| cis-1,2-Dichloroethene | 156-59-2 | 15.0 | 50.0 | 670 | | ug/L | SW8260C | 07/28/17 |
| Trichloroethene (TCE) | 79-01-6 | 15.0 | 50.0 | 199 | | ug/L | SW8260C | 07/28/17 |
| Tetrachloroethene (PCE) | 127-18-4 | 15.0 | 50.0 | 550 | | ug/L | SW8260C | 07/28/17 |

| Surrogate | % Recovery | Control Limits | Qualifier |
|---|---|---|---|
| Dibromofluoromethane | 102 | 70-130 | |
| 1,2-Dichloroethane-d4 | 111 | 70-130 | |
| Toluene-d8 | 99 | 70-130 | |
| 4-Bromofluorobenzene | 94 | 70-130 | |

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J=Estimated value below reporting limit
E=Estimated value above calibration range
*=See case narrative
B=Analyte detected in blank



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# TestAmerica ASL

**Client Information**

**Client Sample ID:** **MW-05-072717-0**

Project Name: Northwest Pipe
Sample Date: 07/27/17
Sample Time: 14:10
Type: Grab
Matrix: Water

**Lab Information**

**Lab Sample ID:** **R250805**

Date Received: 07/28/17
Dilution Factor: 20
Report Revision No.: 0

| Analyte | CAS# | DL | RL | Sample Result | Qualifier | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| **GC/MS Volatiles** | | | | | | | | |
| Vinyl Chloride | 75-01-4 | 3.00 | 10.0 | 7.58 | J | ug/L | SW8260C | 07/28/17 |
| cis-1,2-Dichloroethene | 156-59-2 | 3.00 | 10.0 | 1730 | | ug/L | SW8260C | 07/28/17 |
| Trichloroethene (TCE) | 79-01-6 | 3.00 | 10.0 | 170 | | ug/L | SW8260C | 07/28/17 |
| Tetrachloroethene (PCE) | 127-18-4 | 3.00 | 10.0 | 4130 | E | ug/L | SW8260C | 07/28/17 |

| Surrogate | % Recovery | Control Limits | Qualifier |
|---|---|---|---|
| Dibromofluoromethane | 106 | 70-130 | |
| 1,2-Dichloroethane-d4 | 112 | 70-130 | |
| Toluene-d8 | 101 | 70-130 | |
| 4-Bromofluorobenzene | 94 | 70-130 | |

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J=Estimated value below reporting limit
E=Estimated value above calibration range
*=See case narrative
B=Analyte detected in blank



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# TestAmerica ASL

## Client Information

**Client Sample ID:** **MW-05-072717-0DL**

Project Name: Northwest Pipe
Sample Date: 07/27/17
Sample Time: 14:10
Type: Grab
Matrix: Water

## Lab Information

**Lab Sample ID:** **R250805DL**

Date Received: 07/28/17
Dilution Factor: 100
Report Revision No.: 0

| Analyte | CAS# | DL | RL | Sample Result | Qualifier | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| **GC/MS Volatiles** | | | | | | | | |
| Vinyl Chloride | 75-01-4 | 15.0 | 50.0 | 15.0 | U | ug/L | SW8260C | 07/28/17 |
| cis-1,2-Dichloroethene | 156-59-2 | 15.0 | 50.0 | 1420 | | ug/L | SW8260C | 07/28/17 |
| Trichloroethene (TCE) | 79-01-6 | 15.0 | 50.0 | 161 | | ug/L | SW8260C | 07/28/17 |
| Tetrachloroethene (PCE) | 127-18-4 | 15.0 | 50.0 | 3640 | | ug/L | SW8260C | 07/28/17 |

| Surrogate | % Recovery | Control Limits | Qualifier |
|---|---|---|---|
| Dibromofluoromethane | 102 | 70-130 | |
| 1,2-Dichloroethane-d4 | 112 | 70-130 | |
| Toluene-d8 | 98 | 70-130 | |
| 4-Bromofluorobenzene | 95 | 70-130 | |

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J=Estimated value below reporting limit
E=Estimated value above calibration range
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B=Analyte detected in blank



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# TestAmerica ASL

## Client Information

**Client Sample ID:** **WB1-0728**

Project Name: Northwest Pipe
Sample Date: N/A
Sample Time: N/A
Type: QC
Matrix: Water

## Lab Information

**Lab Sample ID:** **WB1-0728**

Date Received: N/A
Dilution Factor: 1
Report Revision No.: 0

| Analyte | CAS# | DL | RL | Sample Result | Qualifier | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| **GC/MS Volatiles** | | | | | | | | |
| Vinyl Chloride | 75-01-4 | 0.15 | 0.50 | 0.15 | U | ug/L | SW8260C | 07/28/17 |
| cis-1,2-Dichloroethene | 156-59-2 | 0.15 | 0.50 | 0.15 | U | ug/L | SW8260C | 07/28/17 |
| Trichloroethene (TCE) | 79-01-6 | 0.15 | 0.50 | 0.15 | U | ug/L | SW8260C | 07/28/17 |
| Tetrachloroethene (PCE) | 127-18-4 | 0.15 | 0.50 | 0.15 | U | ug/L | SW8260C | 07/28/17 |

| Surrogate | % Recovery | Control Limits | Qualifier |
|---|---|---|---|
| Dibromofluoromethane | 105 | 70-130 | |
| 1,2-Dichloroethane-d4 | 112 | 70-130 | |
| Toluene-d8 | 105 | 70-130 | |
| 4-Bromofluorobenzene | 97 | 70-130 | |

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# TestAmerica ASL

**Client Information**

Project Name: Northwest Pipe
Type: QC
Matrix: Water

**Lab Information**

**LCS ID: BS1W0728**

Report Revision No.: 0
Dilution Factor: 1

| Analyte | CAS# | Spike Amount | Sample Result | Units | %Recovery | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **GC/MS Volatiles** | | | | | | | |
| Vinyl Chloride | 75-01-4 | 20.0 | 19.8 | ug/L | 99 | SW8260C | 07/28/17 |
| cis-1,2-Dichloroethene | 156-59-2 | 20.0 | 19.5 | ug/L | 98 | SW8260C | 07/28/17 |
| Trichloroethene (TCE) | 79-01-6 | 20.0 | 18.2 | ug/L | 91 | SW8260C | 07/28/17 |
| Tetrachloroethene (PCE) | 127-18-4 | 20.0 | 18.3 | ug/L | 92 | SW8260C | 07/28/17 |

| Surrogate | % Recovery | Control Limits | Qualifier |
|---|---|---|---|
| Dibromofluoromethane | 99 | 70-130 | |
| 1,2-Dichloroethane-d4 | 102 | 70-130 | |
| Toluene-d8 | 101 | 70-130 | |
| 4-Bromofluorobenzene | 98 | 70-130 | |

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E=Estimated value above calibration range
*=See case narrative



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# CASE NARRATIVE
# GC/MS VOLATILES ANALYSIS

**Project:** Northwest Pipe **ASL SDG#:** R2508

With the exceptions noted as flags, footnotes, or detailed in the section below; standard operating procedures were followed in the analysis of the samples and no problems were encountered or anomalies observed.

All laboratory quality control samples were within established control limits, with any exceptions noted below, or in the associated QC summary forms.

Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. For diluted samples, the reporting limits are adjusted for the dilution required.

Calculations are performed before rounding to minimize errors in calculated values.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the section below, or in the sample receipt documentation.

**Method(s):**
SW8260C-SIM: SW5030

# TestAmerica ASL

**Client Information**

**Client Sample ID:** **TRIPBLANK-072717-03**

Project Name: Northwest Pipe
Sample Date: 07/27/17
Sample Time: 08:00
Type: Grab
Matrix: Water

**Lab Information**

**Lab Sample ID:** **R250801**

Date Received: 07/28/17
Dilution Factor: 1
Report Revision No.: 0

| Analyte | CAS# | DL | RL | Sample Result | Qualifier | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| **GC/MS Volatiles** | | | | | | | | |
| Vinyl Chloride | 75-01-4 | 8.00 | 20.0 | 8.00 | U | ng/L | SW8260C-SI | 07/31/17 |
| Tetrachloroethene (PCE) | 127-18-4 | 5.00 | 20.0 | 5.00 | U | ng/L | SW8260C-SI | 07/31/17 |

| Surrogate | % Recovery | Control Limits | Qualifier |
|---|---|---|---|
| Dibromofluoromethane | 116 | 70-130 | |
| 1,2-Dichloroethane-d4 | 114 | 70-130 | |
| Toluene-d8 | 90 | 70-130 | |
| 4-Bromofluorobenzene | 122 | 70-130 | |

U=Not detected and reported as less than detection limit
J=Estimated value below reporting limit
E=Estimated value above calibration range
*=See case narrative
B=Analyte detected in blank



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# TestAmerica ASL

## Client Information

**Client Sample ID:** **WB1-0731**

Project Name: Northwest Pipe
Sample Date: N/A
Sample Time: N/A
Type: QC
Matrix: Water

## Lab Information

**Lab Sample ID:** **WB1-0731**

Date Received: N/A
Dilution Factor: 1
Report Revision No.: 0

| Analyte | CAS# | DL | RL | Sample Result | Qualifier | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| **GC/MS Volatiles** | | | | | | | | |
| Vinyl Chloride | 75-01-4 | 8.00 | 20.0 | 8.00 | U | ng/L | SW8260C-SI | 07/31/17 |
| Tetrachloroethene (PCE) | 127-18-4 | 5.00 | 20.0 | 5.00 | U | ng/L | SW8260C-SI | 07/31/17 |

| Surrogate | % Recovery | Control Limits | Qualifier |
|---|---|---|---|
| Dibromofluoromethane | 112 | 70-130 | |
| 1,2-Dichloroethane-d4 | 109 | 70-130 | |
| Toluene-d8 | 89 | 70-130 | |
| 4-Bromofluorobenzene | 122 | 70-130 | |

U=Not detected and reported as less than detection limit
J=Estimated value below reporting limit
E=Estimated value above calibration range
*=See case narrative
B=Analyte detected in blank



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# TestAmerica ASL

**Client Information**

Project Name: Northwest Pipe
Type: QC
Matrix: Water

**Lab Information**

**LCS ID: BS1W0731**

Report Revision No.: 0
Dilution Factor: 1

| Analyte | CAS# | Spike Amount | Sample Result | Units | %Recovery | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **GC/MS Volatiles** | | | | | | | |
| Vinyl Chloride | 75-01-4 | 250 | 213 | ng/L | 85 | SW8260C-SIM | 07/31/17 |
| Tetrachloroethene (PCE) | 127-18-4 | 250 | 223 | ng/L | 89 | SW8260C-SIM | 07/31/17 |

| Surrogate | % Recovery | Control Limits | Qualifier |
|---|---|---|---|
| Dibromofluoromethane | 110 | 70-130 | |
| 1,2-Dichloroethane-d4 | 109 | 70-130 | |
| Toluene-d8 | 93 | 70-130 | |
| 4-Bromofluorobenzene | 125 | 70-130 | |

U=Not detected and reported as less than detection limit
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**TestAmerica ASL**

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# CASE NARRATIVE
# HEADSPACE ANALYSIS

**Project:** Northwest Pipe **ASL SDG#:** R2508

With the exceptions noted as flags, footnotes, or detailed in the section below; standard operating procedures were followed in the analysis of the samples and no problems were encountered or anomalies observed.

All laboratory quality control samples were within established control limits, with any exceptions noted below, or in the associated QC summary forms.

Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. For diluted samples, the reporting limits are adjusted for the dilution required.

Calculations are performed before rounding to minimize errors in calculated values.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the section below, or in the sample receipt documentation.

**Method(s):**
RSK-175

# TestAmerica ASL

**Client Information**

**Client Sample ID: MW-06-072717-0**

Project Name: Northwest Pipe
Sample Date: 07/27/17
Sample Time: 10:15
Type: Grab
Matrix: Water

**Lab Information**

**Lab Sample ID: R250802**

Date Received: 07/28/17
Report Revision No: 0

| Analyte | CAS# | Dilution Factor | DL | RL | Sample Result | Qualifier | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| **GC Volatiles** | | | | | | | | | |
| Methane | 74-82-8 | 1 | 5.11 | 41.0 | 214 | | ug/L | RSK-175 | 08/02/17 |
| Carbon dioxide | 124-38-9 | 1 | 36.8 | 222 | 78600 | | ug/L | RSK-175 | 08/02/17 |

U=Not detected and reported as less than detection limit
J=Estimated value below reporting limit
E=Estimated value above calibration range
*=See case narrative
B=Analyte detected in blank



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# TestAmerica ASL

**Client Information**

**Client Sample ID: MW-100-072717-0**

Project Name: Northwest Pipe
Sample Date: 07/27/17
Sample Time: 10:30
Type: Grab
Matrix: Water

**Lab Information**

**Lab Sample ID: R250803**

Date Received: 07/28/17
Report Revision No: 0

| Analyte | CAS# | Dilution Factor | DL | RL | Sample Result | Qualifier | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| **GC Volatiles** | | | | | | | | | |
| Methane | 74-82-8 | 1 | 5.11 | 41.0 | 382 | | ug/L | RSK-175 | 08/02/17 |
| Carbon dioxide | 124-38-9 | 1 | 36.8 | 222 | 80000 | | ug/L | RSK-175 | 08/02/17 |

U=Not detected and reported as less than detection limit
J=Estimated value below reporting limit
E=Estimated value above calibration range
*=See case narrative
B=Analyte detected in blank



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# TestAmerica ASL

**Client Information**

**Client Sample ID: MW-03-072717-0**

Project Name: Northwest Pipe
Sample Date: 07/27/17
Sample Time: 12:25
Type: Grab
Matrix: Water

**Lab Information**

**Lab Sample ID: R250804**

Date Received: 07/28/17
Report Revision No: 0

| Analyte | CAS# | Dilution Factor | DL | RL | Sample Result | Qualifier | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| **GC Volatiles** | | | | | | | | | |
| Methane | 74-82-8 | 1 | 5.09 | 40.8 | 2670 | | ug/L | RSK-175 | 08/02/17 |
| Carbon dioxide | 124-38-9 | 1 | 36.7 | 222 | 57600 | | ug/L | RSK-175 | 08/02/17 |

U=Not detected and reported as less than detection limit
J=Estimated value below reporting limit
E=Estimated value above calibration range
*=See case narrative
B=Analyte detected in blank



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# TestAmerica ASL

**Client Information**

**Client Sample ID: MW-05-072717-0**

Project Name: Northwest Pipe
Sample Date: 07/27/17
Sample Time: 14:10
Type: Grab
Matrix: Water

**Lab Information**

**Lab Sample ID: R250805**

Date Received: 07/28/17
Report Revision No: 0

| Analyte | CAS# | Dilution Factor | DL | RL | Sample Result | Qualifier | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| **GC Volatiles** | | | | | | | | | |
| Methane | 74-82-8 | 1 | 5.07 | 40.7 | 1190 | | ug/L | RSK-175 | 08/02/17 |
| Carbon dioxide | 124-38-9 | 1 | 36.7 | 222 | 63800 | | ug/L | RSK-175 | 08/02/17 |

U=Not detected and reported as less than detection limit
J=Estimated value below reporting limit
E=Estimated value above calibration range
*=See case narrative
B=Analyte detected in blank



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# TestAmerica ASL

**Client Information**

**Lab Information**

**Method Blank ID: XB1-0802**

Project Name: Northwest Pipe
Sample Date: N/A
Sample Time: N/A
Type: QC
Matrix: Water

Date Received: N/A
Report Revision No: 0

| Analyte | CAS# | Dilution Factor | DL | RL | Sample Result | Qualifier | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| **GC Volatiles** | | | | | | | | | |
| Methane | 74-82-8 | 1 | 14.3 | 114 | 14.3 | U | ug/L | RSK-175 | 08/02/17 |
| Carbon dioxide | 124-38-9 | 1 | 56.6 | 342 | 56.6 | U | ug/L | RSK-175 | 08/02/17 |

U=Not detected and reported as less than detection limit
J=Estimated value below reporting limit
E=Estimated value above calibration range
*=See case narrative
B=Analyte detected in blank



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# TestAmerica ASL

**Client Information**

Project Name: Northwest Pipe
Type: QC
Matrix: Water

**Lab Information**

**LCS ID: BS1X0802**

Report Revision No.: 0
Dilution Factor: 1

| Analyte | CAS# | Spike Amount | Sample Result | Units | %Recovery | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **GC Volatiles** | | | | | | | |
| Methane | 74-82-8 | 593 | 588 | ug/L | 99 | RSK-175 | 08/02/17 |
| Carbon dioxide | 124-38-9 | 3180 | 3070 | ug/L | 96 | RSK-175 | 08/02/17 |

U=Not detected and reported as less than detection limit
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**TestAmerica ASL**

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# CASE NARRATIVE
# METALS ANALYSIS

**Project:** Northwest Pipe **ASL SDG#:** R2508

With the exceptions noted as flags, footnotes, or detailed in the section below; standard operating procedures were followed in the analysis of the samples and no problems were encountered or anomalies observed.

All laboratory quality control samples were within established control limits, with any exceptions noted below, or in the associated QC summary forms.

Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. For diluted samples, the reporting limits are adjusted for the dilution required.

Calculations are performed before rounding to minimize errors in calculated values.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the section below, or in the sample receipt documentation.

**Method(s):**
E200.7: FLDFLT

# TestAmerica ASL

**Client Information**

**Project Name: Northwest Pipe**

Date Received: 07/28/17
Type: See C.O.C.
Matrix: Water

**Lab Information**

**Lab Batch ID: R2508**

Report Revision No.: 0

| Client Sample ID | Lab Sample ID | Dilution Factor | DL | RL | Result | Qual | Units | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| **Iron: E200.7** | | | | | | | | |
| ***Dissolved Metals*** | | | | | | | | |
| MW-06-072717-0 | R250802F | 1 | 10.0 | 100 | 3240 | | ug/L | 08/02/17 |
| MW-100-072717-0 | R250803F | 1 | 10.0 | 100 | 3220 | | ug/L | 08/02/17 |
| MW-03-072717-0 | R250804F | 1 | 10.0 | 100 | 6310 | | ug/L | 08/02/17 |
| MW-05-072717-0 | R250805F | 1 | 10.0 | 100 | 2140 | | ug/L | 08/02/17 |
| ***Total Metals*** | | | | | | | | |
| WB10-0802 | WB10-0802 | 1 | 10.0 | 100 | 10.0 | U | ug/L | 08/02/17 |

U=Not detected and reported as less than detection limit
J=Estimated value below reporting limit
E=Estimated value above calibration range
*=See case narrative
B=Analyte detected in blank



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# TestAmerica ASL

**Client Information**

Project Name: Northwest Pipe
Type: QC
Matrix: Water

**Lab Information**

**Blank Spike ID: BS10W0802**

Report Revision No: 0
Dilution Factor: 1

| Analyte | Spike Amount | Result | Units | %Recovery | Analysis Method | Prep Method | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **Metals** | | | | | | | |
| Iron | 50000 | 51300 | ug/L | 103 | E200.7 | E200.2 | 08/02/17 |

U=Not detected and report as less than detection limit
J=Estimated value below reporting limit
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# CASE NARRATIVE
# GENERAL CHEMISTRY ANALYSIS

**Project:** Northwest Pipe **ASL SDG#:** R2508

With the exceptions noted as flags, footnotes, or detailed in the section below; standard operating procedures were followed in the analysis of the samples and no problems were encountered or anomalies observed.

All laboratory quality control samples were within established control limits, with any exceptions noted below, or in the associated QC summary forms.

Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. For diluted samples, the reporting limits are adjusted for the dilution required.

Calculations are performed before rounding to minimize errors in calculated values.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the section below, or in the sample receipt documentation.

**Method(s):**
E300.0A

# TestAmerica ASL

**Client Information**

**Project Name: Northwest Pipe**

Date Received: 07/28/17
Type: See C.O.C.
Matrix: Water

**Lab Information**

**Lab Batch ID: R2508**

Analysis Method: E300.0A
Units: mg/L
Report Revision No.: 0

| Client Sample ID | Lab Sample ID | Dilution Factor | DL | RL | Chloride Result | Qualifier | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **General Chemistry** | | | | | | | |
| MW-06-072717-0 | R250802 | 1 | 0.020 | 0.20 | 5.18 | | 08/03/17 |
| MW-100-072717-0 | R250803 | 1 | 0.020 | 0.20 | 5.21 | | 08/03/17 |
| MW-03-072717-0 | R250804 | 1 | 0.020 | 0.20 | 5.19 | | 08/03/17 |
| MW-05-072717-0 | R250805 | 2 | 0.040 | 0.40 | 6.53 | | 08/03/17 |
| WB1-0803 | WB1-0803 | 1 | 0.020 | 0.20 | 0.096 | J | 08/03/17 |

U=Not detected and reported as less than detection limit
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E=Estimated value above calibration range
*=See case narrative

B=Analyte detected in blank



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# TestAmerica ASL

**Client Information**

**Project Name: Northwest Pipe**

Date Received: 07/28/17
Type: See C.O.C.
Matrix: Water

**Lab Information**

**Lab Batch ID: R2508**

Analysis Method: E300.0A
Units: mg/L
Report Revision No.: 0

| Client Sample ID | Lab Sample ID | Dilution Factor | DL | RL | Sulfate Result | Qualifier | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **General Chemistry** | | | | | | | |
| MW-06-072717-0 | R250802 | 1 | 0.040 | 0.20 | 13.7 | | 08/03/17 |
| MW-100-072717-0 | R250803 | 1 | 0.040 | 0.20 | 13.6 | | 08/03/17 |
| MW-03-072717-0 | R250804 | 1 | 0.040 | 0.20 | 9.48 | | 08/03/17 |
| MW-05-072717-0 | R250805 | 2 | 0.080 | 0.40 | 20.9 | | 08/03/17 |
| WB1-0803 | WB1-0803 | 1 | 0.040 | 0.20 | 0.040 | U | 08/03/17 |

U=Not detected and reported as less than detection limit
J=Estimated value below reporting limit
E=Estimated value above calibration range
*=See case narrative

B=Analyte detected in blank



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# TestAmerica ASL

**Client Information**

**Lab Information**

**Lab Batch ID: R2508**

Project Name: Northwest Pipe
Type: QC
Matrix: Water

Report Revision No.: 0

| LCS ID | Analyte | Spike Amount | Sample Result | Units | % Recovery | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **General Chemistry** | | | | | | | |
| BS1W0803 | Chloride | 5.00 | 5.11 | mg/L | 102 | E300.0A | 08/03/17 |
| BS1W0803 | Sulfate | 5.00 | 4.87 | mg/L | 97 | E300.0A | 08/03/17 |

U=Not detected and reported as less than detection limit
J=Estimated value below reporting limit
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*=See case narrative



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# CASE NARRATIVE
# GENERAL CHEMISTRY ANALYSIS

**Project:** Northwest Pipe **ASL SDG#:** R2508

With the exceptions noted as flags, footnotes, or detailed in the section below; standard operating procedures were followed in the analysis of the samples and no problems were encountered or anomalies observed.

All laboratory quality control samples were within established control limits, with any exceptions noted below, or in the associated QC summary forms.

Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. For diluted samples, the reporting limits are adjusted for the dilution required.

Calculations are performed before rounding to minimize errors in calculated values.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the section below, or in the sample receipt documentation.

**Method(s):**
E353.2

# TestAmerica ASL

**Client Information**

**Project Name: Northwest Pipe**

Date Received: 07/28/17
Type: See C.O.C.
Matrix: Water

**Lab Information**

**Lab Batch ID: R2508**

Analysis Method: E353.2
Units: mg/L
Report Revision No.: 0

| Client Sample ID | Lab Sample ID | Dilution Factor | DL | RL | Nitrate-N Result | Qualifier | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **General Chemistry** | | | | | | | |
| MW-06-072717-0 | R250802 | 1 | 0.0028 | 0.010 | 0.0084 | J | 07/28/17 13:23 |
| MW-100-072717-0 | R250803 | 1 | 0.0028 | 0.010 | 0.010 | | 07/28/17 13:24 |
| MW-03-072717-0 | R250804 | 1 | 0.0028 | 0.010 | 0.011 | | 07/28/17 13:25 |
| MW-05-072717-0 | R250805 | 4 | 0.011 | 0.040 | 1.05 | | 07/28/17 13:40 |
| WB1-072817 | WB1-072817 | 1 | 0.0028 | 0.010 | 0.0028 | U | 07/28/17 |

U=Not detected and reported as less than detection limit
J=Estimated value below reporting limit
E=Estimated value above calibration range
*=See case narrative

B=Analyte detected in blank



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# TestAmerica ASL

**Client Information**

**Project Name: Northwest Pipe**

Date Received: 07/28/17
Type: See C.O.C.
Matrix: Water

**Lab Information**

**Lab Batch ID: R2508**

Analysis Method: E353.2
Units: mg/L
Report Revision No.: 0

| Client Sample ID | Lab Sample ID | Dilution Factor | DL | RL | Nitrite-N Result | Qualifier | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **General Chemistry** | | | | | | | |
| MW-06-072717-0 | R250802 | 1 | 0.0030 | 0.010 | 0.0030 | U | 07/28/17 12:59 |
| MW-100-072717-0 | R250803 | 1 | 0.0030 | 0.010 | 0.0036 | J | 07/28/17 13:00 |
| MW-03-072717-0 | R250804 | 1 | 0.0030 | 0.010 | 0.0067 | J | 07/28/17 13:01 |
| MW-05-072717-0 | R250805 | 1 | 0.0030 | 0.010 | 0.0086 | J | 07/28/17 13:01 |
| WB1-072817 | WB1-072817 | 1 | 0.0030 | 0.010 | 0.0030 | U | 07/28/17 |

U=Not detected and reported as less than detection limit
J=Estimated value below reporting limit
E=Estimated value above calibration range
*=See case narrative

B=Analyte detected in blank



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# TestAmerica ASL

**Client Information**

**Lab Information**

**Lab Batch ID: R2508**

Project Name: Northwest Pipe
Type: QC
Matrix: Water

Report Revision No.: 0

| LCS ID | Analyte | Spike Amount | Sample Result | Units | % Recovery | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **General Chemistry** | | | | | | | |
| BS1W0728 | Nitrite-N | 0.76 | 0.81 | mg/L | 107 | E353.2 | 07/28/17 |

U=Not detected and reported as less than detection limit
J=Estimated value below reporting limit
E=Estimated value above calibration range
*=See case narrative



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# TestAmerica ASL

**Client Information**

**Client Sample ID:** **MW-05-072717-0**

Project Name: Northwest Pipe
Type: QC
Matrix: Water

**Lab Information**

Report Revision No.: 0

| Analyte | CAS# | MS %Recovery | MSD %Recovery | RPD | QC Limits | RPD Limits | Analysis Method |
|---|---|---|---|---|---|---|---|
| **General Chemistry** | | | | | | | |
| Nitrite-N | 14797-65-0 | 104 | 102 | 1 | 90-110 | 15 | E353.2 |

U=Not detected and reported as less than detection limit
J=Estimated value below reporting limit
E=Estimated value above calibration range
*=See case narrative



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# CASE NARRATIVE
# GENERAL CHEMISTRY ANALYSIS

**Project:** Northwest Pipe **ASL SDG#:** R2508

With the exceptions noted as flags, footnotes, or detailed in the section below; standard operating procedures were followed in the analysis of the samples and no problems were encountered or anomalies observed.

All laboratory quality control samples were within established control limits, with any exceptions noted below, or in the associated QC summary forms.

Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. For diluted samples, the reporting limits are adjusted for the dilution required.

Calculations are performed before rounding to minimize errors in calculated values.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the section below, or in the sample receipt documentation.

**Method(s):**
SM5310B

# TestAmerica ASL

**Client Information**

**Project Name: Northwest Pipe**

Date Received: 07/28/17
Type: See C.O.C.
Matrix: Water

**Lab Information**

**Lab Batch ID: R2508**

Analysis Method: SM5310B
Units: mg/L
Report Revision No.: 0

| Client Sample ID | Lab Sample ID | Dilution Factor | DL | RL | Total Organic Carbon Result | Qualifier | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **General Chemistry** | | | | | | | |
| MW-06-072717-0 | R250802 | 1 | 0.20 | 0.50 | 1.05 | | 08/03/17 |
| MW-100-072717-0 | R250803 | 1 | 0.20 | 0.50 | 1.16 | | 08/03/17 |
| MW-03-072717-0 | R250804 | 1 | 0.20 | 0.50 | 1.33 | | 08/03/17 |
| MW-05-072717-0 | R250805 | 1 | 0.20 | 0.50 | 1.28 | | 08/03/17 |
| WB2-0802 | WB2-0802 | 1 | 0.20 | 0.50 | 0.20 | U | 08/02/17 |

U=Not detected and reported as less than detection limit
J=Estimated value below reporting limit
E=Estimated value above calibration range
*=See case narrative

B=Analyte detected in blank



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# TestAmerica ASL

**Client Information**

**Lab Information**

**Lab Batch ID: R2508**

Project Name: Northwest Pipe
Type: QC
Matrix: Water

Report Revision No.: 0

| LCS ID | Analyte | Spike Amount | Sample Result | Units | % Recovery | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **General Chemistry** | | | | | | | |
| BS2W0802 | Total Organic Carbon | 5.00 | 4.76 | mg/L | 95 | SM5310B | 08/03/17 |

U=Not detected and reported as less than detection limit
J=Estimated value below reporting limit
E=Estimated value above calibration range
*=See case narrative



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**CH2MHILL** Applied Sciences Laboratory
CHAIN OF CUSTODY RECORD
AND AGREEMENT TO PERFORM SERVICES

# Chain of Custody Record

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(541) 768-3120

**Client Contact**

Project Name: NWP
Project # or PO #: 682722.GW.05
Company Name: CH2MHill
Address: 2020 SW 4th Ave Ste. 300
City/State/Zip: Portland, OR 97201
Project Manager: Gretchen Gee
Phone #:
Report to email: gretchen.gee@ch2m.com

**Analysis Turnaround Time**

TAT is Calander days
TAT if different from below _____
☒ 21 days (STD)
☐ 14 days * ☐ 3 day *
☐ 7 days * ☐ 2 days *
☐ 5 days * ☐ 1 day *
* (Surcharges will apply)

**Preservation Used**

| 2 | 2 | 3 | 4 | 1 | 1 | | | |
|---|---|---|---|---|---|---|---|---|

**Analysis Requested**

| Sample Identification (Limit of 20 characters) | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix (Water, Soil, Air) | Total # of Cont. | SW8260C (VOCs) | SW8260SIM (VOCs SIM) | SM5310 (Gen Chem H2S) | E200.7 Field Filtered (Diss. Metals) | E300.0 4E353.2 (GW Anions) | RSK 175 | Sample Specific Notes: | Lab ID: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TRIP BLANK-072717-03 | 7/27/17 | 0800 | G | W | 4 | 2 | 2 | | | | | | 1 |
| MW-06-072717-0 | 7/27/17 | 1015 | G | W | 12 | 3 | 3 | 1 | 1 | 1 | 3 | | 2 |
| MW-100-072717-0 | 7/27/17 | 1030 | G | W | 12 | 3 | 3 | 1 | 1 | 1 | 3 | | 3 |
| MW-03-072717-0 | 7/27/17 | 1225 | G | W | 12 | 3 | 3 | 1 | 1 | 1 | 3 | | 4 |
| MW-05-072717-0 | 7/27/17 | 1410 | G | W | 12 | 3 | 3 | 1 | 1 | 1 | 3 | | 5 |
| ~~MW-[illegible]~~ | | | | | | | | | | | | | |

**For Lab Use Only:**

SDG: R2508
Custody Seals intact? ☒ Yes ☐ No
Hand delivered? ☐ Yes ☒ No
Cooler Temp: 1.1 °C
Therm ID No.: 173 Therm Exp. 10/14/17
Packing Material: Circle Below
Ice Blue Ice Box Bubble Wrap
Radiological Screen? ☐ Yes ☒ No

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

**Possible Hazard Identification:**
Are samples hazardous? ☐ Yes ☒ No
If yes, select hazard(s): ☐ Listed ☐ Ignitable ☐ Corrosive ☐ Reactive ☐ Toxic
**If YES or NO is not checked above, samples will be assumed hazardous and hazardous disposal fees will be applied.**

**Sample Disposal** (A fee may be added if samples are retained longer than 30 day per client request, samples are returned to client, or classified as hazardous.)
☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ months

Sampled By: Jennifer Ulrich Date/Time: 7/27/17 1410
Relinquished by: Jennifer Ulrich Date/Time: 7/27/17 1545
Received by: Date/Time:
Relinquished by: Date/Time:
Received in Laboratory by: [signature] Date/Time: 7/28/17 1030
Shipped Via: ☐ UPS ☒ Fed-Ex ☐ USPS ☐ Other Tracking #:

**Special Instructions/QC Requirements**
* E200.7 Field filtered for all shipments from 7/25-7/27/17



DOC CONTROL ID: ASL1081-0814

# TestAmerica ASL

## Sample Receipt Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

SDG ID: R2508 Date Received: 7/28/2017

Client/Project: Northwest Pipe Received by: PC

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Were custody seals intact and on the outside of the cooler? | | | ☑ | Yes | ☐ | No | ☐ | N/A |
| Shipping Record: | ☐ | Hand Delivered | ☑ | On File | ☐ | COC | | |
| Radiological Screening for DoD | | | ☐ | Yes | ☐ | No | ☑ | N/A |
| Packing Material: | ☐ | Hand Delivered | ☑ | Ice | ☐ | Blue Ice | ☐ | Box |
| Temp OK? (<6C) Therm ID: TH173 Exp. 10/14/17 | 1.6°C | | ☑ | Yes | ☐ | No | ☐ | N/A |
| Was a Chain of Custody (CoC) Provided? | | | ☑ | Yes | ☐ | No | ☐ | N/A |
| Was the CoC correctly filled out (If No, document below) | | | ☑ | Yes | ☐ | No | ☐ | N/A |
| Did sample labels agree with COC? (If No, document below) | | | ☑ | Yes | ☐ | No | ☐ | N/A |
| Did the CoC list a correct bottle count and the preservative types (No=Correct on CoC) | | | ☑ | Yes | ☐ | No | ☐ | N/A |
| Were the sample containers in good condition (not broken or leaking)? | | | ☑ | Yes | ☐ | No | ☐ | N/A |
| Was enough sample volume provided for analysis? (If No, document below) | | | ☑ | Yes | ☐ | No | ☐ | N/A |
| Containers supplied by ASL? | | | ☑ | Yes | ☐ | No | ☐ | N/A |
| Any sample with < 1/2 holding time remaining? If so contact LPM and document below. | | | ☑ | Yes | ☐ | No | ☐ | N/A |
| Samples have multi-phase? If yes, document on SRER | | | ☐ | Yes | ☑ | No | ☐ | N/A |
| All water VOCs free of air bubbles? No, document on SRER | | | ☑ | Yes | ☐ | No | ☐ | N/A |
| pH of all samples met criteria on receipt? If "No", preserve and document below. | | | ☑ | Yes | ☐ | No | ☐ | N/A |
| Dissolved/Soluble metals filtered in the field? | | | ☑ | Yes | ☐ | No | ☐ | N/A |
| Dissolved/Soluble metals have sediment in bottom of container? If so document below. | | | ☐ | Yes | ☑ | No | ☐ | N/A |

### Preservation Adjustment

| Sample ID | Reagent | Reagent Lot Number | Volume Added | Initials/Date-Time | 24 hour pH check Initials/Time |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |

Did pH of all metals samples preserved upon receipt meet criteria 24 hours after preservation? ☐ Yes ☐ No

### Sample Exception Report (The following exceptions were noted)

1. Nitrate sample for MW-06-072717-0 (R250802) received with less than half holding time remaining.

Client was notified on: Client contact:

Resolution to Exception: