



# Analytical Report for Northwest Pipe

ASL Report #: R1213

Project ID: 682722.GW.05

**Attn: Gretchen Gee**

cc:

Beckett, Jamie/RDD

Authorized and Released By:

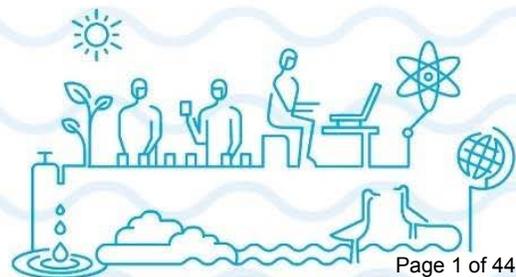
Laboratory Project Manager  
Kathy McKinley  
(541) 758-0235 ext.23144  
February 17, 2017

All analyses performed by CH2M HILL 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)  
Louisiana (05031)



ASL Report #: R1213

### Sample Receipt Comments

We certify that the test results meet all NELAP requirements.

### Sample Cross-Reference

<b>ASL Sample ID</b>	<b>Client Sample ID</b>	<b>Date/Time Collected</b>	<b>Date Received</b>
R121301	MW-01-020217-0	02/02/17 09:55	02/03/17
R121302	MW-06-020217-0	02/02/17 11:25	02/03/17
R121303	MW-06-020217-1	02/02/17 11:30	02/03/17
R121304	MW-03-020217-0	02/02/17 13:00	02/03/17
R121305	TRIP BLANK-020217-1	02/02/17 08:00	02/03/17
R121306	MW-05-020217-0	02/02/17 14:25	02/03/17

## CASE NARRATIVE GC/MS VOLATILES ANALYSIS

**Lab Name:** CH2M ASL

**ASL SDG#:** R1213

**Project:** Northwest Pipe

**Project #:** 682722.GW.05

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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

# CH2M ASL

Client Information				Lab Information			
Client Sample ID: TRIP BLANK-020217-1				Lab Sample ID: R121305			
Project Name: Northwest Pipe				Date Received: 02/03/17			
Sample Date: 02/02/17				Dilution Factor: 1			
Sample Time: 08:00				Report Revision No.: 0			
Type: Grab							
Matrix: Water							

Analyte	CAS#	DL	RL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
<b>GC/MS Volatiles</b>								
Vinyl Chloride	75-01-4	8.00	20.0	8.00	U	ng/L	SW8260C-SI	02/08/17
Tetrachloroethene (PCE)	127-18-4	5.00	20.0	5.00	U	ng/L	SW8260C-SI	02/08/17

Surrogate	% Recovery	Control Limits	Qualifier
Dibromofluoromethane	115	70-130	
1,2-Dichloroethane-d4	116	70-130	
Toluene-d8	100	70-130	
4-Bromofluorobenzene	108	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

# CH2M ASL

Client Information				Lab Information			
<b>Client Sample ID: WB1-0208</b>				<b>Lab Sample ID: WB1-0208</b>			
Project Name: Northwest Pipe				Date Received: N/A			
Sample Date: N/A				Dilution Factor: 1			
Sample Time: N/A				Report Revision No.: 0			
Type: QC							
Matrix: Water							

Analyte	CAS#	DL	RL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
<b>GC/MS Volatiles</b>								
Vinyl Chloride	75-01-4	8.00	20.0	8.00	U	ng/L	SW8260C-SI	02/08/17
Tetrachloroethene (PCE)	127-18-4	5.00	20.0	5.00	U	ng/L	SW8260C-SI	02/08/17

Surrogate	% Recovery	Control Limits	Qualifier
Dibromofluoromethane	110	70-130	
1,2-Dichloroethane-d4	110	70-130	
Toluene-d8	99	70-130	
4-Bromofluorobenzene	108	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

# CH2M ASL

Client Information		Lab Information	
Project Name: Northwest Pipe		LCS ID: BS1W0208	
Type: QC		Report Revision No.: 0	
Matrix: Water		Dilution Factor: 1	

Analyte	CAS#	Spike Amount	Sample Result	Units	%Recovery	Analysis Method	Date Analyzed
<b>GC/MS Volatiles</b>							
Vinyl Chloride	75-01-4	500	535	ng/L	107	SW8260C-SIM	02/08/17
Tetrachloroethene (PCE)	127-18-4	500	514	ng/L	103	SW8260C-SIM	02/08/17

Surrogate	% Recovery	Control Limits	Qualifier
Dibromofluoromethane	109	70-130	
1,2-Dichloroethane-d4	109	70-130	
Toluene-d8	103	70-130	
4-Bromofluorobenzene	109	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

## CASE NARRATIVE GC/MS VOLATILES ANALYSIS

**Lab Name:** CH2M ASL

**ASL SDG#:** R1213

**Project:** Northwest Pipe

**Project #:** 682722.GW.05

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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

# CH2M ASL

Client Information				Lab Information			
<b>Client Sample ID: MW-01-020217-0</b>				<b>Lab Sample ID: R121301</b>			
Project Name: Northwest Pipe				Date Received: 02/03/17			
Sample Date: 02/02/17				Dilution Factor: 1			
Sample Time: 09:55				Report Revision No.: 0			
Type: Grab							
Matrix: Water							

Analyte	CAS#	DL	RL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
<b>GC/MS Volatiles</b>								
Vinyl Chloride	75-01-4	0.15	0.50	29.9		ug/L	SW8260C	02/03/17
cis-1,2-Dichloroethene	156-59-2	0.15	0.50	106	E	ug/L	SW8260C	02/03/17
Trichloroethene (TCE)	79-01-6	0.15	0.50	14.9		ug/L	SW8260C	02/03/17
Tetrachloroethene (PCE)	127-18-4	0.15	0.50	71.7		ug/L	SW8260C	02/03/17

Surrogate	% Recovery	Control Limits	Qualifier
Dibromofluoromethane	112	70-130	
1,2-Dichloroethane-d4	117	70-130	
Toluene-d8	100	70-130	
4-Bromofluorobenzene	88	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

# CH2M ASL

Client Information				Lab Information			
Client Sample ID: MW-01-020217-0DL				Lab Sample ID: R121301DL			
Project Name: Northwest Pipe				Date Received: 02/03/17			
Sample Date: 02/02/17				Dilution Factor: 10			
Sample Time: 09:55				Report Revision No.: 0			
Type: Grab							
Matrix: Water							

Analyte	CAS#	DL	RL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
<b>GC/MS Volatiles</b>								
Vinyl Chloride	75-01-4	1.50	5.00	27.4		ug/L	SW8260C	02/06/17
cis-1,2-Dichloroethene	156-59-2	1.50	5.00	107		ug/L	SW8260C	02/06/17
Trichloroethene (TCE)	79-01-6	1.50	5.00	16.4		ug/L	SW8260C	02/06/17
Tetrachloroethene (PCE)	127-18-4	1.50	5.00	88.7		ug/L	SW8260C	02/06/17

Surrogate	% Recovery	Control Limits	Qualifier
Dibromofluoromethane	110	70-130	
1,2-Dichloroethane-d4	117	70-130	
Toluene-d8	102	70-130	
4-Bromofluorobenzene	92	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

# CH2M ASL

Client Information				Lab Information			
Client Sample ID: MW-06-020217-0				Lab Sample ID: R121302			
Project Name: Northwest Pipe				Date Received: 02/03/17			
Sample Date: 02/02/17				Dilution Factor: 1			
Sample Time: 11:25				Report Revision No.: 0			
Type: Grab							
Matrix: Water							

Analyte	CAS#	DL	RL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
<b>GC/MS Volatiles</b>								
Vinyl Chloride	75-01-4	0.15	0.50	51.0		ug/L	SW8260C	02/03/17
cis-1,2-Dichloroethene	156-59-2	0.15	0.50	1100	E	ug/L	SW8260C	02/03/17
Trichloroethene (TCE)	79-01-6	0.15	0.50	147	E	ug/L	SW8260C	02/03/17
Tetrachloroethene (PCE)	127-18-4	0.15	0.50	656	E	ug/L	SW8260C	02/03/17

Surrogate	% Recovery	Control Limits	Qualifier
Dibromofluoromethane	114	70-130	
1,2-Dichloroethane-d4	119	70-130	
Toluene-d8	104	70-130	
4-Bromofluorobenzene	91	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

# CH2M ASL

Client Information				Lab Information			
Client Sample ID: MW-06-020217-0DL				Lab Sample ID: R121302DL			
Project Name: Northwest Pipe				Date Received: 02/03/17			
Sample Date: 02/02/17				Dilution Factor: 50			
Sample Time: 11:25				Report Revision No.: 0			
Type: Grab							
Matrix: Water							

Analyte	CAS#	DL	RL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
<b>GC/MS Volatiles</b>								
Vinyl Chloride	75-01-4	7.50	25.0	55.8		ug/L	SW8260C	02/06/17
cis-1,2-Dichloroethene	156-59-2	7.50	25.0	1590		ug/L	SW8260C	02/06/17
Trichloroethene (TCE)	79-01-6	7.50	25.0	147		ug/L	SW8260C	02/06/17
Tetrachloroethene (PCE)	127-18-4	7.50	25.0	805		ug/L	SW8260C	02/06/17

Surrogate	% Recovery	Control Limits	Qualifier
Dibromofluoromethane	108	70-130	
1,2-Dichloroethane-d4	113	70-130	
Toluene-d8	99	70-130	
4-Bromofluorobenzene	88	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

# CH2M ASL

Client Information				Lab Information			
<b>Client Sample ID: MW-06-020217-1</b>				<b>Lab Sample ID: R121303</b>			
Project Name: Northwest Pipe				Date Received: 02/03/17			
Sample Date: 02/02/17				Dilution Factor: 1			
Sample Time: 11:30				Report Revision No.: 0			
Type: Grab							
Matrix: Water							

Analyte	CAS#	DL	RL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
<b>GC/MS Volatiles</b>								
Vinyl Chloride	75-01-4	0.15	0.50	53.9		ug/L	SW8260C	02/03/17
cis-1,2-Dichloroethene	156-59-2	0.15	0.50	1100	E	ug/L	SW8260C	02/03/17
Trichloroethene (TCE)	79-01-6	0.15	0.50	132	E	ug/L	SW8260C	02/03/17
Tetrachloroethene (PCE)	127-18-4	0.15	0.50	593	E	ug/L	SW8260C	02/03/17

Surrogate	% Recovery	Control Limits	Qualifier
Dibromofluoromethane	112	70-130	
1,2-Dichloroethane-d4	118	70-130	
Toluene-d8	102	70-130	
4-Bromofluorobenzene	90	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

# CH2M ASL

Client Information				Lab Information			
Client Sample ID: MW-06-020217-1DL				Lab Sample ID: R121303DL			
Project Name: Northwest Pipe				Date Received: 02/03/17			
Sample Date: 02/02/17				Dilution Factor: 50			
Sample Time: 11:30				Report Revision No.: 0			
Type: Grab							
Matrix: Water							

Analyte	CAS#	DL	RL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
<b>GC/MS Volatiles</b>								
Vinyl Chloride	75-01-4	7.50	25.0	55.2		ug/L	SW8260C	02/06/17
cis-1,2-Dichloroethene	156-59-2	7.50	25.0	1600		ug/L	SW8260C	02/06/17
Trichloroethene (TCE)	79-01-6	7.50	25.0	145		ug/L	SW8260C	02/06/17
Tetrachloroethene (PCE)	127-18-4	7.50	25.0	760		ug/L	SW8260C	02/06/17

Surrogate	% Recovery	Control Limits	Qualifier
Dibromofluoromethane	112	70-130	
1,2-Dichloroethane-d4	118	70-130	
Toluene-d8	103	70-130	
4-Bromofluorobenzene	91	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

# CH2M ASL

Client Information				Lab Information			
<b>Client Sample ID: MW-03-020217-0</b>				<b>Lab Sample ID: R121304</b>			
Project Name: Northwest Pipe				Date Received: 02/03/17			
Sample Date: 02/02/17				Dilution Factor: 1			
Sample Time: 13:00				Report Revision No.: 0			
Type: Grab							
Matrix: Water							

Analyte	CAS#	DL	RL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
<b>GC/MS Volatiles</b>								
Vinyl Chloride	75-01-4	0.15	0.50	20.8		ug/L	SW8260C	02/03/17
cis-1,2-Dichloroethene	156-59-2	0.15	0.50	408	E	ug/L	SW8260C	02/03/17
Trichloroethene (TCE)	79-01-6	0.15	0.50	183	E	ug/L	SW8260C	02/03/17
Tetrachloroethene (PCE)	127-18-4	0.15	0.50	460	E	ug/L	SW8260C	02/03/17

Surrogate	% Recovery	Control Limits	Qualifier
Dibromofluoromethane	110	70-130	
1,2-Dichloroethane-d4	117	70-130	
Toluene-d8	100	70-130	
4-Bromofluorobenzene	88	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

# CH2M ASL

Client Information				Lab Information			
Client Sample ID: MW-03-020217-0DL				Lab Sample ID: R121304DL			
Project Name: Northwest Pipe				Date Received: 02/03/17			
Sample Date: 02/02/17				Dilution Factor: 10			
Sample Time: 13:00				Report Revision No.: 0			
Type: Grab							
Matrix: Water							

Analyte	CAS#	DL	RL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
<b>GC/MS Volatiles</b>								
Vinyl Chloride	75-01-4	1.50	5.00	26.3		ug/L	SW8260C	02/06/17
cis-1,2-Dichloroethene	156-59-2	1.50	5.00	502		ug/L	SW8260C	02/06/17
Trichloroethene (TCE)	79-01-6	1.50	5.00	178		ug/L	SW8260C	02/06/17
Tetrachloroethene (PCE)	127-18-4	1.50	5.00	483		ug/L	SW8260C	02/06/17

Surrogate	% Recovery	Control Limits	Qualifier
Dibromofluoromethane	112	70-130	
1,2-Dichloroethane-d4	115	70-130	
Toluene-d8	101	70-130	
4-Bromofluorobenzene	89	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

# CH2M ASL

Client Information				Lab Information			
<b>Client Sample ID: TRIP BLANK-020217-1</b>				<b>Lab Sample ID: R121305</b>			
Project Name: Northwest Pipe				Date Received: 02/03/17			
Sample Date: 02/02/17				Dilution Factor: 1			
Sample Time: 08:00				Report Revision No.: 0			
Type: Grab							
Matrix: Water							

Analyte	CAS#	DL	RL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
<b>GC/MS Volatiles</b>								
Vinyl Chloride	75-01-4	0.15	0.50	0.15	U	ug/L	SW8260C	02/03/17
cis-1,2-Dichloroethene	156-59-2	0.15	0.50	0.15	U	ug/L	SW8260C	02/03/17
Trichloroethene (TCE)	79-01-6	0.15	0.50	0.15	U	ug/L	SW8260C	02/03/17
Tetrachloroethene (PCE)	127-18-4	0.15	0.50	0.15	U	ug/L	SW8260C	02/03/17

Surrogate	% Recovery	Control Limits	Qualifier
Dibromofluoromethane	109	70-130	
1,2-Dichloroethane-d4	114	70-130	
Toluene-d8	103	70-130	
4-Bromofluorobenzene	91	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

# CH2M ASL

Client Information				Lab Information			
<b>Client Sample ID: MW-05-020217-0</b>				<b>Lab Sample ID: R121306</b>			
Project Name: Northwest Pipe				Date Received: 02/03/17			
Sample Date: 02/02/17				Dilution Factor: 1			
Sample Time: 14:25				Report Revision No.: 0			
Type: Grab							
Matrix: Water							

Analyte	CAS#	DL	RL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
<b>GC/MS Volatiles</b>								
Vinyl Chloride	75-01-4	0.15	0.50	39.5		ug/L	SW8260C	02/03/17
cis-1,2-Dichloroethene	156-59-2	0.15	0.50	941	E	ug/L	SW8260C	02/03/17
Trichloroethene (TCE)	79-01-6	0.15	0.50	205	E	ug/L	SW8260C	02/03/17
Tetrachloroethene (PCE)	127-18-4	0.15	0.50	1810	E	ug/L	SW8260C	02/03/17

Surrogate	% Recovery	Control Limits	Qualifier
Dibromofluoromethane	112	70-130	
1,2-Dichloroethane-d4	116	70-130	
Toluene-d8	105	70-130	
4-Bromofluorobenzene	90	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

# CH2M ASL

Client Information				Lab Information			
Client Sample ID: MW-05-020217-0DL				Lab Sample ID: R121306DL			
Project Name: Northwest Pipe				Date Received: 02/03/17			
Sample Date: 02/02/17				Dilution Factor: 100			
Sample Time: 14:25				Report Revision No.: 0			
Type: Grab							
Matrix: Water							

Analyte	CAS#	DL	RL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
<b>GC/MS Volatiles</b>								
Vinyl Chloride	75-01-4	15.0	50.0	34.2	J	ug/L	SW8260C	02/06/17
cis-1,2-Dichloroethene	156-59-2	15.0	50.0	1240		ug/L	SW8260C	02/06/17
Trichloroethene (TCE)	79-01-6	15.0	50.0	208		ug/L	SW8260C	02/06/17
Tetrachloroethene (PCE)	127-18-4	15.0	50.0	4150		ug/L	SW8260C	02/06/17

Surrogate	% Recovery	Control Limits	Qualifier
Dibromofluoromethane	109	70-130	
1,2-Dichloroethane-d4	114	70-130	
Toluene-d8	101	70-130	
4-Bromofluorobenzene	88	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

# CH2M ASL

Client Information				Lab Information			
<b>Client Sample ID: WB1-0203</b>				<b>Lab Sample ID: WB1-0203</b>			
Project Name: Northwest Pipe				Date Received: N/A			
Sample Date: N/A				Dilution Factor: 1			
Sample Time: N/A				Report Revision No.: 0			
Type: QC							
Matrix: Water							

Analyte	CAS#	DL	RL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
<b>GC/MS Volatiles</b>								
Vinyl Chloride	75-01-4	0.15	0.50	0.15	U	ug/L	SW8260C	02/03/17
cis-1,2-Dichloroethene	156-59-2	0.15	0.50	0.15	U	ug/L	SW8260C	02/03/17
Trichloroethene (TCE)	79-01-6	0.15	0.50	0.15	U	ug/L	SW8260C	02/03/17
Tetrachloroethene (PCE)	127-18-4	0.15	0.50	0.15	U	ug/L	SW8260C	02/03/17

Surrogate	% Recovery	Control Limits	Qualifier
Dibromofluoromethane	105	70-130	
1,2-Dichloroethane-d4	102	70-130	
Toluene-d8	100	70-130	
4-Bromofluorobenzene	92	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

# CH2M ASL

Client Information				Lab Information			
<b>Client Sample ID: WB1-0206</b>				<b>Lab Sample ID: WB1-0206</b>			
Project Name: Northwest Pipe				Date Received: N/A			
Sample Date: N/A				Dilution Factor: 1			
Sample Time: N/A				Report Revision No.: 0			
Type: QC							
Matrix: Water							

Analyte	CAS#	DL	RL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
<b>GC/MS Volatiles</b>								
Vinyl Chloride	75-01-4	0.15	0.50	0.15	U	ug/L	SW8260C	02/06/17
cis-1,2-Dichloroethene	156-59-2	0.15	0.50	0.15	U	ug/L	SW8260C	02/06/17
Trichloroethene (TCE)	79-01-6	0.15	0.50	0.15	U	ug/L	SW8260C	02/06/17
Tetrachloroethene (PCE)	127-18-4	0.15	0.50	0.15	U	ug/L	SW8260C	02/06/17

Surrogate	% Recovery	Control Limits	Qualifier
Dibromofluoromethane	106	70-130	
1,2-Dichloroethane-d4	107	70-130	
Toluene-d8	100	70-130	
4-Bromofluorobenzene	91	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

# CH2M ASL

Client Information		Lab Information	
Project Name: Northwest Pipe		LCS ID: BS1W0203	
Type: QC		Report Revision No.: 0	
Matrix: Water		Dilution Factor: 1	

Analyte	CAS#	Spike Amount	Sample Result	Units	%Recovery	Analysis Method	Date Analyzed
<b>GC/MS Volatiles</b>							
Vinyl Chloride	75-01-4	20.0	17.2	ug/L	86	SW8260C	02/03/17
cis-1,2-Dichloroethene	156-59-2	20.0	17.8	ug/L	89	SW8260C	02/03/17
Trichloroethene (TCE)	79-01-6	20.0	20.1	ug/L	100	SW8260C	02/03/17
Tetrachloroethene (PCE)	127-18-4	20.0	19.3	ug/L	97	SW8260C	02/03/17

Surrogate	% Recovery	Control Limits	Qualifier
Dibromofluoromethane	105	70-130	
1,2-Dichloroethane-d4	101	70-130	
Toluene-d8	101	70-130	
4-Bromofluorobenzene	96	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

# CH2M ASL

Client Information				Lab Information			
Project Name: Northwest Pipe				LCS ID: BS1W0206			
Type: QC				Report Revision No.: 0			
Matrix: Water				Dilution Factor: 1			

Analyte	CAS#	Spike Amount	Sample Result	Units	%Recovery	Analysis Method	Date Analyzed
<b>GC/MS Volatiles</b>							
Vinyl Chloride	75-01-4	20.0	17.3	ug/L	86	SW8260C	02/06/17
cis-1,2-Dichloroethene	156-59-2	20.0	17.8	ug/L	89	SW8260C	02/06/17
Trichloroethene (TCE)	79-01-6	20.0	19.2	ug/L	96	SW8260C	02/06/17
Tetrachloroethene (PCE)	127-18-4	20.0	19.3	ug/L	97	SW8260C	02/06/17

Surrogate	% Recovery	Control Limits	Qualifier
Dibromofluoromethane	104	70-130	
1,2-Dichloroethane-d4	103	70-130	
Toluene-d8	99	70-130	
4-Bromofluorobenzene	93	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

## CASE NARRATIVE HEADSPACE ANALYSIS

**Lab Name:** CH2M ASL

**ASL SDG#:** R1213

**Project:** Northwest Pipe

**Project #:** 682722.GW.05

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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

# CH2M ASL

Client Information					Lab Information				
Client Sample ID: MW-01-020217-0					Lab Sample ID: R121301				
Project Name: Northwest Pipe					Date Received: 02/03/17				
Sample Date: 02/02/17					Report Revision No: 0				
Sample Time: 09:55									
Type: Grab									
Matrix: Water									

Analyte	CAS#	Dilution Factor	DL	RL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
<b>GC Volatiles</b>									
Methane	74-82-8	1	3.49	28.0	1740		ug/L	RSK-175	02/03/17
Carbon dioxide	124-38-9	1	33.3	201	68200		ug/L	RSK-175	02/03/17

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

# CH2M ASL

Client Information					Lab Information				
Client Sample ID: MW-06-020217-0					Lab Sample ID: R121302				
Project Name: Northwest Pipe					Date Received: 02/03/17				
Sample Date: 02/02/17					Report Revision No: 0				
Sample Time: 11:25									
Type: Grab									
Matrix: Water									

Analyte	CAS#	Dilution Factor	DL	RL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
<b>GC Volatiles</b>									
Methane	74-82-8	1	3.80	30.5	623		ug/L	RSK-175	02/03/17
Carbon dioxide	124-38-9	1	34.0	205	60500		ug/L	RSK-175	02/03/17

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

# CH2M ASL

Client Information					Lab Information				
Client Sample ID: MW-06-020217-1					Lab Sample ID: R121303				
Project Name: Northwest Pipe					Date Received: 02/03/17				
Sample Date: 02/02/17					Report Revision No: 0				
Sample Time: 11:30									
Type: Grab									
Matrix: Water									

Analyte	CAS#	Dilution Factor	DL	RL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
<b>GC Volatiles</b>									
Methane	74-82-8	1	3.72	29.9	666		ug/L	RSK-175	02/03/17
Carbon dioxide	124-38-9	1	33.8	204	62300		ug/L	RSK-175	02/03/17

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

# CH2M ASL

Client Information					Lab Information				
Client Sample ID: MW-03-020217-0					Lab Sample ID: R121304				
Project Name: Northwest Pipe					Date Received: 02/03/17				
Sample Date: 02/02/17					Report Revision No: 0				
Sample Time: 13:00									
Type: Grab									
Matrix: Water									

Analyte	CAS#	Dilution Factor	DL	RL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
<b>GC Volatiles</b>									
Methane	74-82-8	1	3.85	30.9	734		ug/L	RSK-175	02/03/17
Carbon dioxide	124-38-9	1	34.1	206	44100		ug/L	RSK-175	02/03/17

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

# CH2M ASL

Client Information				Lab Information			
Client Sample ID: MW-05-020217-0				Lab Sample ID: R121306			
Project Name: Northwest Pipe				Date Received: 02/03/17			
Sample Date: 02/02/17				Report Revision No: 0			
Sample Time: 14:25							
Type: Grab							
Matrix: Water							

Analyte	CAS#	Dilution Factor	DL	RL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
<b>GC Volatiles</b>									
Methane	74-82-8	1	3.48	27.9	887		ug/L	RSK-175	02/03/17
Carbon dioxide	124-38-9	1	33.3	201	74900		ug/L	RSK-175	02/03/17

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

# CH2M ASL

Client Information					Lab Information				
Project Name: Northwest Pipe					Method Blank ID: XB1-0203				
Sample Date: N/A					Date Received: N/A				
Sample Time: N/A					Report Revision No: 0				
Type: QC									
Matrix: Water									

Analyte	CAS#	Dilution Factor	DL	RL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
<b>GC Volatiles</b>									
Methane	74-82-8	1	14.3	114	14.3	U	ug/L	RSK-175	02/03/17
Carbon dioxide	124-38-9	1	56.6	342	56.6	U	ug/L	RSK-175	02/03/17

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

# CH2M ASL

Client Information				Lab Information			
Project Name: Northwest Pipe Type: QC Matrix: Water				LCS ID: BS1X0203 Report Revision No.: 0 Dilution Factor: 1			

Analyte	CAS#	Spike Amount	Sample Result	Units	%Recovery	Analysis Method	Date Analyzed
<b>GC Volatiles</b>							
Methane	74-82-8	593	614	ug/L	103	RSK-175	02/03/17
Carbon dioxide	124-38-9	3180	3300	ug/L	104	RSK-175	02/03/17

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

## CASE NARRATIVE METALS ANALYSIS

**Lab Name:** CH2M ASL

**ASL SDG#:** R1213

**Project:** Northwest Pipe

**Project #:** 682722.GW.05

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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

# CH2M ASL

Client Information				Lab Information			
<b>Project Name: Northwest Pipe</b>				<b>Lab Batch ID: R1213</b>			
Date Received: 02/03/2017				Report Revision No.: 0			
Type: See C.O.C.							
Matrix: Water							

Client Sample ID	Lab Sample ID	Dilution Factor	DL	RL	Result	Qual	Units	Date Analyzed
<b>Iron: E200.7</b>								
<i>Dissolved Metals</i>								
MW-01-020217-0	R121301F	1	10.0	100	3010		ug/L	02/08/2017
MW-06-020217-0	R121302F	1	10.0	100	6100		ug/L	02/08/2017
MW-06-020217-1	R121303F	1	10.0	100	6090		ug/L	02/08/2017
MW-03-020217-0	R121304F	1	10.0	100	4460		ug/L	02/08/2017
MW-05-020217-0	R121306F	1	10.0	100	13.7	J	ug/L	02/08/2017
<i>Total Metals</i>								
WB11-0208	WB11-0208	1	10.0	100	19.8	J	ug/L	02/08/2017

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

# CH2M ASL

Client Information	Lab Information
Project Name: Northwest Pipe Type: QC Matrix: Water	Blank Spike ID: BS11W0208 Report Revision No: 0 Dilution Factor: 1

Analyte	Spike Amount	Result	Units	%Recovery	Analysis Method	Prep Method	Date Analyzed
<b>Metals</b>							
Iron	50000	49300	ug/L	99	E200.7	E200.2	02/08/2017

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

## CASE NARRATIVE GENERAL CHEMISTRY ANALYSIS

**Lab Name:** CH2M ASL

**ASL SDG#:** R1213

**Project:** Northwest Pipe

**Project #:** 682722.GW.05

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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

# CH2M ASL

Client Information		Lab Information	
<b>Project Name:</b> Northwest Pipe		<b>Lab Batch ID:</b> R1213	
Date Received: 02/03/17		Analysis Method: E300.0A	
Type: See C.O.C.		Units: mg/L	
Matrix: Water		Report Revision No.: 0	

Client Sample ID	Lab Sample ID	Dilution Factor	DL	Chloride RL	Result	Qualifier	Date Analyzed
<b>General Chemistry</b>							
MW-01-020217-0	R121301	1	0.020	0.20	3.69		02/08/17
MW-06-020217-0	R121302	1	0.020	0.20	6.12		02/08/17
MW-06-020217-1	R121303	1	0.020	0.20	5.95		02/08/17
MW-03-020217-0	R121304	1	0.020	0.20	3.92		02/08/17
MW-05-020217-0	R121306	1	0.020	0.20	7.03		02/08/17
WB1-0208	WB1-0208	1	0.020	0.20	0.020	U	02/08/17

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

# CH2M ASL

Client Information				Lab Information			
<b>Project Name: Northwest Pipe</b>				<b>Lab Batch ID: R1213</b>			
Date Received: 02/03/17				Analysis Method: E300.0A			
Type: See C.O.C.				Units: mg/L			
Matrix: Water				Report Revision No.: 0			

Client Sample ID	Lab Sample ID	Dilution Factor	DL	RL	Sulfate Result	Qualifier	Date Analyzed
<b>General Chemistry</b>							
MW-01-020217-0	R121301	1	0.023	0.20	4.71		02/08/17
MW-06-020217-0	R121302	1	0.023	0.20	9.27		02/08/17
MW-06-020217-1	R121303	1	0.023	0.20	9.09		02/08/17
MW-03-020217-0	R121304	1	0.023	0.20	10.4		02/08/17
MW-05-020217-0	R121306	5	0.11	1.00	29.7		02/13/17
WB1-0208	WB1-0208	1	0.023	0.20	0.023	U	02/08/17
WB1-0213	WB1-0213	1	0.023	0.20	0.023	U	02/13/17

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

# CH2M ASL

Client Information		Lab Information	
Project Name: Northwest Pipe Type: QC Matrix: Water		Lab Batch ID: R1213 Report Revision No.: 0	

LCS ID	Analyte	Spike Amount	Sample Result	Units	% Recovery	Analysis Method	Date Analyzed
<b>General Chemistry</b>							
BS1W0208	Chloride	5.00	4.79	mg/L	96	E300.0A	02/08/17
BS1W0208	Sulfate	5.00	4.78	mg/L	96	E300.0A	02/08/17
BS1W0213	Sulfate	5.00	4.87	mg/L	97	E300.0A	02/13/17

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

## CASE NARRATIVE GENERAL CHEMISTRY ANALYSIS

**Lab Name:** CH2M ASL

**ASL SDG#:** R1213

**Project:** Northwest Pipe

**Project #:** 682722.GW.05

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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

# CH2M ASL

Client Information				Lab Information			
<b>Project Name: Northwest Pipe</b>				<b>Lab Batch ID: R1213</b>			
Date Received: 02/03/17				Analysis Method: E353.2			
Type: See C.O.C.				Units: mg/L			
Matrix: Water				Report Revision No.: 0			

Client Sample ID	Lab Sample ID	Dilution Factor	DL	Nitrate-N RL	Result	Qualifier	Date Analyzed
<b>General Chemistry</b>							
MW-01-020217-0	R121301	1	0.0028	0.010	0.061		02/03/17 16:58
MW-06-020217-0	R121302	1	0.0028	0.010	0.0028	U	02/03/17 17:00
MW-06-020217-1	R121303	1	0.0028	0.010	0.0030	J	02/03/17 17:01
MW-03-020217-0	R121304	1	0.0028	0.010	0.018		02/03/17 17:02
MW-05-020217-0	R121306	1	0.0028	0.010	0.57		02/03/17 17:03
WB1-020317	WB1-020317	1	0.0028	0.010	0.0028	U	02/03/17

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

## CASE NARRATIVE GENERAL CHEMISTRY ANALYSIS

**Lab Name:** CH2M ASL

**ASL SDG#:** R1213

**Project:** Northwest Pipe

**Project #:** 682722.GW.05

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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

# CH2M ASL

Client Information			Lab Information			
<b>Project Name: Northwest Pipe</b>			<b>Lab Batch ID: R1213</b>			
Date Received: 02/03/17			Analysis Method: SM5310B			
Type: See C.O.C.			Units: mg/L			
Matrix: Water			Report Revision No.: 0			

Client Sample ID	Lab Sample ID	Dilution Factor	DL	Total Organic Carbon RL	Result	Qualifier	Date Analyzed
<b>General Chemistry</b>							
MW-01-020217-0	R121301	1	0.20	0.50	0.84		02/09/17
MW-06-020217-0	R121302	1	0.20	0.50	1.15		02/09/17
MW-06-020217-1	R121303	1	0.20	0.50	1.12		02/09/17
MW-03-020217-0	R121304	1	0.20	0.50	0.93		02/09/17
MW-05-020217-0	R121306	1	0.20	0.50	1.50		02/09/17
WB1-0209	WB1-0209	1	0.20	0.50	0.20	U	02/09/17

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

# CH2M ASL

Client Information				Lab Information			
Project Name: Northwest Pipe Type: QC Matrix: Water				Lab Batch ID: R1213 Report Revision No.: 0			

LCS ID	Analyte	Spike Amount	Sample Result	Units	% Recovery	Analysis Method	Date Analyzed
<b>General Chemistry</b>							
BS1W0209	Total Organic Carbon	5.00	4.64	mg/L	93	SM5310B	02/09/17

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

# Chain of Custody Record

Client Contact		Analysis Turnaround Time					Preservation Used						For Lab Use Only:			
Project Name: <u>Northwest Pipe</u>		TAT is Calander days					HCL	HCL	-	H <sub>2</sub> SO <sub>4</sub>	-	HNO <sub>3</sub>	SDG: <u>14213</u>			
Project # or PO #:		TAT if different from below					Analysis Requested						Custody Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Company Name: <u>CH2M</u>		<input checked="" type="checkbox"/> 21 days (STD)					<u>VOCS - 8260C</u> <u>VOCS - 8260 SEM</u> <u>Methane, CO<sub>2</sub></u> <u>PSK - 175</u> <u>TOC</u> <u>N: Nitrate, Sulfate, Chloride</u> <u>Dissolved Fervous</u> <u>FEON (FREEP) (POTENTIAL)</u>							Hand delivered? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Address: <u>200 SW POWAY AVE, STE 300</u>		<input type="checkbox"/> 14 days * <input type="checkbox"/> 3 day *												Cooler Temp <u>0.3</u> °C		
City/State/Zip: <u>PORTLAND, OR 97201</u>		<input type="checkbox"/> 7 days * <input type="checkbox"/> 2 days *												Therm ID No.: <u>173</u> Therm Exp. <u>4/17/17</u>		
Project Manager: <u>GRETCHEN GEE</u>		<input type="checkbox"/> 5 days * <input type="checkbox"/> 1 day *												Packing Material: Circle Below		
Phone #:		* (Surcharges will apply)												<input checked="" type="checkbox"/> Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Box <input type="checkbox"/> Bubble Wrap		
Report to email: <u>GRETCHEN GEE</u>		Sample Identification (Limit of 20 characters)		Sample Date	Sample Time	Sample Type (CaComp, G=Grab)	Matrix (Water, Soil, Air)	Total # of Cont.							Sample Specific Notes:	Lab ID:
		<u>MW-01-020217-0</u>	<u>02/02/17</u>	<u>955</u>	<u>G</u>	<u>W</u>	<u>12</u>	<u>12</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>1</u>	
		<u>MW-06-020217-0</u>	<u>02/02/17</u>	<u>1125</u>	<u>G</u>	<u>W</u>	<u>12</u>	<u>12</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>2</u>	
		<u>MW-06-020217-1</u>	<u>02/02/17</u>	<u>1130</u>	<u>G</u>	<u>W</u>	<u>12</u>	<u>12</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>3</u>	
		<u>MW-03-020217-0</u>	<u>02/02/17</u>	<u>1300</u>	<u>G</u>	<u>W</u>	<u>12</u>	<u>12</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>4</u>	
		<u>TRIP BLANK - 020217-1</u>	<u>02/02/17</u>	<u>800</u>	<u>G</u>	<u>W</u>	<u>2</u>	<u>2</u>	<u>X</u>	<u>X</u>					<u>5</u>	
		<u>MW-05-020217-0</u>	<u>02/02/17</u>	<u>1425</u>	<u>G</u>	<u>W</u>	<u>12</u>	<u>12</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>6</u>	
Preservation Used: <u>1=Ice, 2=HCL, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other</u>		Possible Hazard Identification:					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.)									
Are samples hazardous? <input type="checkbox"/> Yes <input type="checkbox"/> No		If yes, select hazard(s): <input type="checkbox"/> Listed <input type="checkbox"/> Ignitable <input type="checkbox"/> Corrosive <input type="checkbox"/> Reactive <input type="checkbox"/> Toxic					Return to Client <input type="checkbox"/> Disposal by Lab <input checked="" type="checkbox"/> Archive for _____ months									
If YES or NO is not checked above, samples will be assumed hazardous and hazardous disposal fees will be applied.		Sampled By: <u>G/Ch BERN OSTAPKOWICZ</u> Date/Time: <u>02/02/17 1530</u>					Relinquished by: <u>G/Ch BERN OSTAPKOWICZ</u> Date/Time: <u>02/02/17 1530</u>									
Received by:		Date/Time:					Relinquished by:						Date/Time:			
Received in Laboratory by: <u>G/Ch BERN OSTAPKOWICZ</u>		Date/Time: <u>02/13/17 1110</u>					Shipped Via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> Fed-Ex <input type="checkbox"/> USPS <input type="checkbox"/> Other						Tracking #:			
Special Instructions/QC Requirements																

## Sample Receipt Record

SDG ID: R1213

Date Received: 2/3/2017

Client/Project: Northwest Pipe

Received by: PC

Were custody seals intact and on the outside of the cooler?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Shipping Record:	<input type="checkbox"/> Hand Delivered	<input checked="" type="checkbox"/> On File	<input type="checkbox"/> COC
Radiological Screening for DoD	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Packing Material:	<input type="checkbox"/> Hand Delivered	<input checked="" type="checkbox"/> Ice	<input type="checkbox"/> Blue Ice <input type="checkbox"/> Box
Temp OK? (<6C) Therm ID: TH173 Exp. 4/17/17	0.3 °C	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A
Was a Chain of Custody (CoC) Provided?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Was the CoC correctly filled out (If No, document below)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Did sample labels agree with COC? (If No, document below)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Did the CoC list a correct bottle count and the preservative types (No=Correct on CoC)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Were the sample containers in good condition (not broken or leaking)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Was enough sample volume provided for analysis? (If No, document below)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Containers supplied by ASL?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Any sample with < 1/2 holding time remaining? If so contact LPM and document below.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Samples have multi-phase? If yes, document on SRER	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
All water VOCs free of air bubbles? No, document on SRER	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
pH of all samples met criteria on receipt? If "No", preserve and document below.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Dissolved/Soluble metals filtered in the field?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Dissolved/Soluble metals have sediment in bottom of container? If so document below.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> 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 MW-01-020217-0 (R121301) received with less than half holding time remaining.

Client was notified on: \_\_\_\_\_ Client contact: \_\_\_\_\_

Resolution to Exception: