

ANALYTICAL REPORT

Eurofins TestAmerica, Seattle
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Tel: (253)922-2310

Laboratory Job ID: 580-89897-1

Client Project/Site: Northwest Pipe Company GW Monitoring
Revision: 1

For:
CH2M Hill, Inc.
2020 SW 4th Ave
Suite 300
Portland, Oregon 97201

Attn: Bernice Kidd



Authorized for release by:
11/11/2019 3:34:05 PM

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Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: CH2M Hill, Inc.
Project/Site: Northwest Pipe Company GW Monitoring

Job ID: 580-89897-1

Job ID: 580-89897-1

Laboratory: Eurofins TestAmerica, Seattle

Narrative

**Job Narrative
580-89897-1**

Comments

Report was revised to correct the sample collection time for sample MW05-100191-0.

No additional comments.

Receipt

The samples were received on 10/10/2019 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.6° C.

Subcontract Work

Method TCE, cis 1,2-DCE, PCE, Vinyl Chloride - low level: This method was subcontracted to EMAX Laboratories Inc. The subcontract laboratory certification is different from that of the facility issuing the final report.

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Definitions/Glossary

Client: CH2M Hill, Inc.
Project/Site: Northwest Pipe Company GW Monitoring

Job ID: 580-89897-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: CH2M Hill, Inc.
Project/Site: Northwest Pipe Company GW Monitoring

Job ID: 580-89897-1

Client Sample ID: MW02-100819-0

Lab Sample ID: 580-89897-1

Date Collected: 10/08/19 08:55

Matrix: Water

Date Received: 10/10/19 09:45

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (TCD)	7700		1000	500	ug/L			10/18/19 16:39	1

- 1
- 2
- 3
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- 10
- 11
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Client Sample Results

Client: CH2M Hill, Inc.
Project/Site: Northwest Pipe Company GW Monitoring

Job ID: 580-89897-1

Client Sample ID: MW04-100819-0

Lab Sample ID: 580-89897-2

Date Collected: 10/08/19 10:00

Matrix: Water

Date Received: 10/10/19 09:45

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (TCD)	2700		1000	500	ug/L			10/18/19 16:53	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

Client Sample Results

Client: CH2M Hill, Inc.
Project/Site: Northwest Pipe Company GW Monitoring

Job ID: 580-89897-1

Client Sample ID: T4S1MW22-100819-0

Lab Sample ID: 580-89897-3

Date Collected: 10/08/19 11:40

Matrix: Water

Date Received: 10/10/19 09:45

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (FID)	16		0.99	0.25	ug/L			10/18/19 17:34	1

1

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Client Sample Results

Client: CH2M Hill, Inc.
Project/Site: Northwest Pipe Company GW Monitoring

Job ID: 580-89897-1

Client Sample ID: T4S1MW23-100819-0

Lab Sample ID: 580-89897-4

Date Collected: 10/08/19 13:20

Matrix: Water

Date Received: 10/10/19 09:45

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (FID)	67		0.99	0.25	ug/L			10/18/19 17:47	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

Client Sample Results

Client: CH2M Hill, Inc.
 Project/Site: Northwest Pipe Company GW Monitoring

Job ID: 580-89897-1

Client Sample ID: MW01-100919-0

Lab Sample ID: 580-89897-5

Date Collected: 10/09/19 08:50

Matrix: Water

Date Received: 10/10/19 09:45

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (FID)	990		0.99	0.25	ug/L			10/18/19 18:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.5		0.90	0.14	mg/L			10/23/19 12:49	1
NO3 as N	0.60		0.20	0.020	mg/L			10/10/19 17:54	1
Sulfate	11		1.2	0.26	mg/L			10/23/19 12:49	1
Total Organic Carbon	1.3		0.10	0.050	mg/L			10/15/19 12:56	1

Client Sample Results

Client: CH2M Hill, Inc.
 Project/Site: Northwest Pipe Company GW Monitoring

Job ID: 580-89897-1

Client Sample ID: MW06-100919-0

Lab Sample ID: 580-89897-6

Date Collected: 10/09/19 10:27

Matrix: Water

Date Received: 10/10/19 09:45

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (TCD)	3100		1000	500	ug/L			10/18/19 18:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.5		0.90	0.14	mg/L			10/23/19 13:24	1
NO3 as N	0.039	J	0.20	0.020	mg/L			10/10/19 18:06	1
Sulfate	9.4		1.2	0.26	mg/L			10/23/19 13:24	1
Total Organic Carbon	1.8		0.10	0.050	mg/L			10/15/19 13:11	1

Client Sample Results

Client: CH2M Hill, Inc.
Project/Site: Northwest Pipe Company GW Monitoring

Job ID: 580-89897-1

Client Sample ID: MW03-100919-0

Lab Sample ID: 580-89897-7

Date Collected: 10/09/19 12:15

Matrix: Water

Date Received: 10/10/19 09:45

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (TCD)	2600		1000	500	ug/L			10/18/19 18:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.2		0.90	0.14	mg/L			10/23/19 13:36	1
NO3 as N	0.031	J	0.20	0.020	mg/L			10/10/19 18:17	1
Sulfate	10		1.2	0.26	mg/L			10/23/19 13:36	1
Total Organic Carbon	1.6		0.10	0.050	mg/L			10/15/19 13:25	1

Client Sample Results

Client: CH2M Hill, Inc.
 Project/Site: Northwest Pipe Company GW Monitoring

Job ID: 580-89897-1

Client Sample ID: MW05-100919-0

Lab Sample ID: 580-89897-8

Date Collected: 10/09/19 13:35

Matrix: Water

Date Received: 10/10/19 09:45

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (TCD)	3000		1000	500	ug/L			10/18/19 18:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.2		0.90	0.14	mg/L			10/23/19 14:11	1
NO3 as N	0.15	J	0.20	0.020	mg/L			10/10/19 18:53	1
Sulfate	12		1.2	0.26	mg/L			10/23/19 14:11	1
Total Organic Carbon	1.9		0.10	0.050	mg/L			10/15/19 13:54	1

Client Sample Results

Client: CH2M Hill, Inc.
 Project/Site: Northwest Pipe Company GW Monitoring

Job ID: 580-89897-1

Client Sample ID: MW100-100919-0

Lab Sample ID: 580-89897-9

Date Collected: 10/09/19 12:00

Matrix: Water

Date Received: 10/10/19 09:45

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (TCD)	2900		1000	500	ug/L			10/18/19 18:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.5		0.90	0.14	mg/L			10/23/19 14:23	1
NO3 as N	0.035	J	0.20	0.020	mg/L			10/10/19 19:04	1
Sulfate	9.7		1.2	0.26	mg/L			10/23/19 14:23	1
Total Organic Carbon	2.1		0.10	0.050	mg/L			10/15/19 13:40	1

QC Sample Results

Client: CH2M Hill, Inc.
 Project/Site: Northwest Pipe Company GW Monitoring

Job ID: 580-89897-1

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 440-575269/8
Matrix: Water
Analysis Batch: 575269

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (FID)	ND		0.99	0.25	ug/L			10/18/19 13:34	1
Methane (TCD)	ND		1000	500	ug/L			10/18/19 13:34	1

Lab Sample ID: LCS 440-575269/4
Matrix: Water
Analysis Batch: 575269

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane (TCD)	4190	4140		ug/L		99	80 - 120

Lab Sample ID: LCS 440-575269/6
Matrix: Water
Analysis Batch: 575269

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane (FID)	83.9	89.3		ug/L		106	80 - 120

Lab Sample ID: LCSD 440-575269/5
Matrix: Water
Analysis Batch: 575269

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methane (TCD)	4190	4150		ug/L		99	80 - 120	0	20

Lab Sample ID: LCSD 440-575269/7
Matrix: Water
Analysis Batch: 575269

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methane (FID)	83.9	89.5		ug/L		107	80 - 120	0	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 580-314224/3
Matrix: Water
Analysis Batch: 314224

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
NO3 as N	ND		0.20	0.020	mg/L			10/10/19 09:30	1

Lab Sample ID: LCS 580-314224/4
Matrix: Water
Analysis Batch: 314224

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
NO3 as N	5.00	5.10		mg/L		102	90 - 110

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QC Sample Results

Client: CH2M Hill, Inc.
Project/Site: Northwest Pipe Company GW Monitoring

Job ID: 580-89897-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 580-314224/5
Matrix: Water
Analysis Batch: 314224

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
NO3 as N	5.00	5.11		mg/L		102	90 - 110	0	15

Lab Sample ID: MB 580-315110/11
Matrix: Water
Analysis Batch: 315110

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.90	0.14	mg/L			10/23/19 12:02	1
Sulfate	ND		1.2	0.26	mg/L			10/23/19 12:02	1

Lab Sample ID: LCS 580-315110/12
Matrix: Water
Analysis Batch: 315110

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	52.3		mg/L		105	90 - 110
Sulfate	50.0	51.2		mg/L		102	90 - 110

Lab Sample ID: LCSD 580-315110/13
Matrix: Water
Analysis Batch: 315110

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	50.0	52.4		mg/L		105	90 - 110	0	15
Sulfate	50.0	51.2		mg/L		102	90 - 110	0	15

Lab Sample ID: 580-89897-5 MS
Matrix: Water
Analysis Batch: 315110

Client Sample ID: MW01-100919-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.5		50.0	57.2		mg/L		110	90 - 110
Sulfate	11		50.0	65.2		mg/L		108	90 - 110

Lab Sample ID: 580-89897-5 MSD
Matrix: Water
Analysis Batch: 315110

Client Sample ID: MW01-100919-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2.5		50.0	57.2		mg/L		110	90 - 110	0	15
Sulfate	11		50.0	65.3		mg/L		108	90 - 110	0	15

Method: SM 5310C - TOC

Lab Sample ID: MB 440-574648/8
Matrix: Water
Analysis Batch: 574648

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		0.10	0.050	mg/L			10/15/19 07:31	1

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QC Sample Results

Client: CH2M Hill, Inc.
 Project/Site: Northwest Pipe Company GW Monitoring

Job ID: 580-89897-1

Method: SM 5310C - TOC (Continued)

Lab Sample ID: LCS 440-574648/7
Matrix: Water
Analysis Batch: 574648

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	5.00	4.87		mg/L		97	85 - 115

Lab Sample ID: MRL 440-574648/6
Matrix: Water
Analysis Batch: 574648

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.100	0.0637	J	mg/L		64	50 - 150

Lab Chronicle

Client: CH2M Hill, Inc.
Project/Site: Northwest Pipe Company GW Monitoring

Job ID: 580-89897-1

Client Sample ID: MW02-100819-0

Date Collected: 10/08/19 08:55

Date Received: 10/10/19 09:45

Lab Sample ID: 580-89897-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	575269	10/18/19 16:39	EI	TAL IRV

Client Sample ID: MW04-100819-0

Date Collected: 10/08/19 10:00

Date Received: 10/10/19 09:45

Lab Sample ID: 580-89897-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	575269	10/18/19 16:53	EI	TAL IRV

Client Sample ID: T4S1MW22-100819-0

Date Collected: 10/08/19 11:40

Date Received: 10/10/19 09:45

Lab Sample ID: 580-89897-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	575269	10/18/19 17:34	EI	TAL IRV

Client Sample ID: T4S1MW23-100819-0

Date Collected: 10/08/19 13:20

Date Received: 10/10/19 09:45

Lab Sample ID: 580-89897-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	575269	10/18/19 17:47	EI	TAL IRV

Client Sample ID: MW01-100919-0

Date Collected: 10/09/19 08:50

Date Received: 10/10/19 09:45

Lab Sample ID: 580-89897-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	575269	10/18/19 18:00	EI	TAL IRV
Total/NA	Analysis	300.0		1	314224	10/10/19 17:54	AAC	TAL SEA
Total/NA	Analysis	300.0		1	315110	10/23/19 12:49	AAC	TAL SEA
Total/NA	Analysis	SM 5310C		1	574648	10/15/19 12:56	YZ	TAL IRV

Client Sample ID: MW06-100919-0

Date Collected: 10/09/19 10:27

Date Received: 10/10/19 09:45

Lab Sample ID: 580-89897-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	575269	10/18/19 18:14	EI	TAL IRV
Total/NA	Analysis	300.0		1	314224	10/10/19 18:06	AAC	TAL SEA
Total/NA	Analysis	300.0		1	315110	10/23/19 13:24	AAC	TAL SEA
Total/NA	Analysis	SM 5310C		1	574648	10/15/19 13:11	YZ	TAL IRV

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Lab Chronicle

Client: CH2M Hill, Inc.
 Project/Site: Northwest Pipe Company GW Monitoring

Job ID: 580-89897-1

Client Sample ID: MW03-100919-0

Date Collected: 10/09/19 12:15

Date Received: 10/10/19 09:45

Lab Sample ID: 580-89897-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	575269	10/18/19 18:27	EI	TAL IRV
Total/NA	Analysis	300.0		1	314224	10/10/19 18:17	AAC	TAL SEA
Total/NA	Analysis	300.0		1	315110	10/23/19 13:36	AAC	TAL SEA
Total/NA	Analysis	SM 5310C		1	574648	10/15/19 13:25	YZ	TAL IRV

Client Sample ID: MW05-100919-0

Date Collected: 10/09/19 13:35

Date Received: 10/10/19 09:45

Lab Sample ID: 580-89897-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	575269	10/18/19 18:39	EI	TAL IRV
Total/NA	Analysis	300.0		1	314224	10/10/19 18:53	AAC	TAL SEA
Total/NA	Analysis	300.0		1	315110	10/23/19 14:11	AAC	TAL SEA
Total/NA	Analysis	SM 5310C		1	574648	10/15/19 13:54	YZ	TAL IRV

Client Sample ID: MW100-100919-0

Date Collected: 10/09/19 12:00

Date Received: 10/10/19 09:45

Lab Sample ID: 580-89897-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	575269	10/18/19 18:52	EI	TAL IRV
Total/NA	Analysis	300.0		1	314224	10/10/19 19:04	AAC	TAL SEA
Total/NA	Analysis	300.0		1	315110	10/23/19 14:23	AAC	TAL SEA
Total/NA	Analysis	SM 5310C		1	574648	10/15/19 13:40	YZ	TAL IRV

Laboratory References:

EMAX Lab. = EMAX Laboratories Inc, 1835 W. 205th Street, Torrance, CA 90501

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL SEA = Eurofins TestAmerica, Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: CH2M Hill, Inc.
Project/Site: Northwest Pipe Company GW Monitoring

Job ID: 580-89897-1

Laboratory: Eurofins TestAmerica, Seattle

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-024	01-19-22
ANAB	Dept. of Defense ELAP	L2236	01-19-22
ANAB	ISO/IEC 17025	L2236	01-19-22
California	State	2901	11-05-19
Montana (UST)	State	NA	04-13-21
Oregon	NELAP	WA100007	11-05-19
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-17-00039	02-10-20
Washington	State	C553	02-17-20

Laboratory: Eurofins TestAmerica, Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA01531	06-30-20
Arizona	State	AZ0671	10-14-20
California	Los Angeles County Sanitation Districts	10256	06-30-20
California	State	2706	06-30-20
Guam	State	19-005R	01-23-20
Hawaii	State	CA01531	01-29-20
Kansas	NELAP	E-10420	07-31-20
Nevada	State	CA015312020-4	07-31-20
New Mexico	State	CA01531	01-29-20
Oregon	NELAP	4028 - 006	01-29-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-18-00214	07-09-21
Washington	State	C900	09-03-20

Sample Summary

Client: CH2M Hill, Inc.
Project/Site: Northwest Pipe Company GW Monitoring

Job ID: 580-89897-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
580-89897-1	MW02-100819-0	Water	10/08/19 08:55	10/10/19 09:45	
580-89897-2	MW04-100819-0	Water	10/08/19 10:00	10/10/19 09:45	
580-89897-3	T4S1MW22-100819-0	Water	10/08/19 11:40	10/10/19 09:45	
580-89897-4	T4S1MW23-100819-0	Water	10/08/19 13:20	10/10/19 09:45	
580-89897-5	MW01-100919-0	Water	10/09/19 08:50	10/10/19 09:45	
580-89897-6	MW06-100919-0	Water	10/09/19 10:27	10/10/19 09:45	
580-89897-7	MW03-100919-0	Water	10/09/19 12:15	10/10/19 09:45	
580-89897-8	MW05-100919-0	Water	10/09/19 13:35	10/10/19 09:45	
580-89897-9	MW100-100919-0	Water	10/09/19 12:00	10/10/19 09:45	
580-89897-10	TRIPBLANK-100919-0	Water	10/09/19 00:01	10/10/19 09:45	

EMAX
LABORATORIES, INC.
 1835 W. 205th Street
 Torrance, CA 90501
 Tel: (310) 618-8889

Date: 11-06-2019
 EMAX Batch No.: 19J118

Attn: Kris Allen

TestAmerica, Inc.
 5755 8th Street East
 Tacoma WA 98424

Subject: Laboratory Report
 Project: NW PIPE COMPANY GW MONITORING

 Enclosed is the Laboratory report for samples received on 10/11/19.
 The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
MW02-100819-0	J118-01	10/08/19	WATER	VOC SIM
MW04-100819-0	J118-02	10/08/19	WATER	VOC SIM
T4S1MW22-100819-0	J118-03	10/08/19	WATER	VOC SIM
T4S1MW23-100819-0	J118-04	10/08/19	WATER	VOC SIM
MW01-100919-0	J118-05	10/09/19	WATER	VOC SIM
MW06-100919-0	J118-06	10/09/19	WATER	VOC SIM
MW03-100919-0	J118-07	10/09/19	WATER	VOC SIM
MW05-100919-0	J118-08	10/09/19	WATER	VOC SIM
MW100-100919-0	J118-09	10/09/19	WATER	VOC SIM
TRIPBLANK-100919-0	J118-10	10/09/19	WATER	VOC SIM

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,



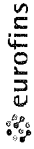
 Caspar J. Pang
 Laboratory Director

This report is confidential and intended solely for the use of the individual or entity to whom it is addressed. This report shall not be reproduced except in full or without the written approval of EMAX.

EMAX certifies that results included in this report meets all TNI & DOD requirements unless noted in the Case Narrative.

NELAP Accredited Certificate Number CA002912018-15
 ANAB Accredited DoD ELAP and ISO/IEC 17025 Certificate Number L2278 Testing
 California ELAP Accredited Certificate Number 2672

Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM:	Allen, Kristine D	Carrier Tracking No(s):	COC No: 580-71100-2
Client Contact: Shipping/Receiving		Phone:		State of Origin:	Oregon
Company: EMAX Laboratories Inc		E-Mail:	kristine.allen@testamericainc.com	Page:	Page 2 of 2
Address: 1835 W. 205th Street, City: Torrance State, Zip: CA, 90501 Phone: Email:		Accreditations Required (See note):		Job #:	580-89897-1
Project Name: Northwest Pipe Company GW Monitoring Site:		Due Date Requested: 10/22/2019	Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Z - other (specify) Other:		
TAT Requested (days):		Analysis Requested			
PO #:	WO #:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (TCE, cis 1,2-DCE, PCE, Vinyl Chloride - low level)/ TCE, cis 1,2-DCE, PCE, Vinyl Chloride -	Total Number of Containers
Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=soil, BT=tissue, A=air)	Preservation Code:	Special Instructions/Note:
10/9/19	00:01 Pacific		Water		Please provide CH2 Lab Spec EDD if possible.
<p>Sample Identification - Client ID</p> <p>TRIPBLANK-100919-0</p>					
<p>Possible Hazard Identification</p> <p>Unconfirmed</p> <p>Deliverable Requested: I, II, III, IV, Other (specify)</p> <p>Primary Deliverable Rank: 2</p> <p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p> <p>Special Instructions/QC Requirements:</p>					
Empty Kit Relinquished by:		Date:		Method of Shipment:	
Relinquished by: <i>Tom [Signature]</i>		Date/Time: <i>October 10, 2019</i>		Company	
Relinquished by:		Date/Time:		Received by: <i>Jenessa Nakagawa</i>	
Relinquished by:		Date/Time:		Date/Time: <i>10/11/19 09:50</i>	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Company: <i>EMAX</i>	
<p>REPORT ID: 19J118</p> <p>Page 2 of 12</p>					

ORIGIN ID:TCMA (253) 922-2310
SAMPLE RECEIVING
TA-SEATTLE
5755 8TH ST E
FIFE, WA 98424
UNITED STATES US

SHIP DATE: 10OCT19
ACTWGT: 18.30 LB
CAD: 989746/CAFE3310

BILL SENDER

0930

TO SHIPPING/RECEIVING
EMAX LABORATORIES INC
1835 W. 205TH STREET

2.9°C

(A)

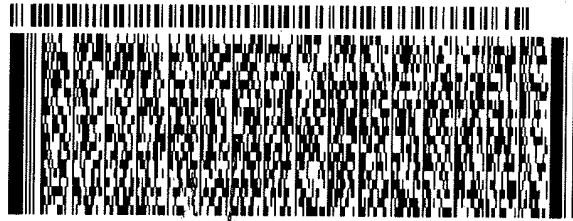
TORRANCE CA 90501

(253) 922-2310
PO: NO

REF: 8580-36106

sealed

56503/2430/0502



FedEx
Express



J191219051901 W

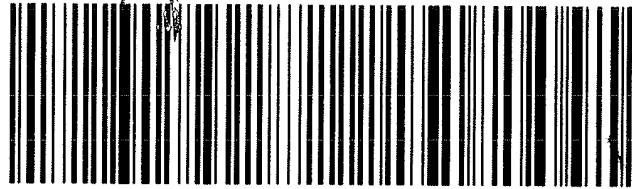
TRK# 1294 590 5662
0201

FRI - 11 OCT 10:30A
PRIORITY OVERNIGHT

92 HHRA

90501
CA-US LAX

Part # 159471-434 RIT EXP 05/20



REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range or estimated value.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

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LABORATORY REPORT FOR

TESTAMERICA, INC.

NW PIPE COMPANY GW MONITORING

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

SDG#: 19J118

CASE NARRATIVE

Client : TESTAMERICA, INC.

Project: NW PIPE COMPANY GW MONITORING

SDG : 19J118

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

A total of ten (10) water samples were received on 10/11/19 to be analyzed for EDB by GC/MS SIM in accordance with Method SW5030B/8260B SIM and project specific requirements.

Holding Time

Samples were analyzed within the prescribed holding time.

Instrument Performance and Calibration

Instrument tune check was performed prior to calibration. Result was within acceptance criteria. Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using secondary source (ICV). Continuing calibration (CCV) was carried out at a frequency required by the project. All project calibration requirements were satisfied. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, two (2) method blanks were analyzed. VO05J12B and VO05J13B were compliant to project requirement. Refer to sample result summary forms for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, two (2) sets of LCS/LCD were analyzed. VO05J12L/VO05J12C and VO05J13L/VO05J13C were within LCS limits. Refer to LCS summary forms for details.

Matrix QC Sample

No matrix QC sample was provided on this SDG.

Surrogate

Surrogates were added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met. Samples 19J118-02, -05, -06, -07, -08 and -09 were reported at dilution due to high concentration.

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SAMPLE RESULTS

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

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=====
Client      : TESTAMERICA, INC.           Date Collected: 10/08/19
Project     : NW PIPE COMPANY GW MONITORING Date Received: 10/11/19
Batch No.   : 19J118                     Date Extracted: 10/14/19 13:34 # 10/15/19 13:48
Sample ID   : MW02-100819-0              Date Analyzed: 10/14/19 13:34 # 10/15/19 13:48
Lab Samp ID: J118-01 #J118-01I           Dilution Factor: 1 # 5
Lab File ID: RJQ326 #RJQ357              Matrix          : WATER
Ext Btch ID: V005J12 #V005J13            % Moisture      : NA
Calib. Ref.: RIQ400 #RIQ400              Instrument ID   : T-005
=====

```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	0.76	0.20	0.10
# VINYL CHLORIDE	2.9	0.50	0.10
TETRACHLOROETHENE	ND	0.20	0.10
TCE	ND	0.20	0.10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	0.508	0.5000	102	70-130
4-BROMOFLUOROBENZENE	0.456	0.5000	91.2	70-130
TOLUENE-D8	0.476	0.5000	95.3	70-130
# 1,2-DICHLOROETHANE-D4	2.57	2.500	103	70-130
# 4-BROMOFLUOROBENZENE	2.29	2.500	91.8	70-130
# TOLUENE-D8	2.41	2.500	96.5	70-130

Members of the Associated File

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

```

=====
Client      : TESTAMERICA, INC.           Date Collected: 10/08/19
Project     : NW PIPE COMPANY GW MONITORING Date Received: 10/11/19
Batch No.   : 19J118                     Date Extracted: 10/14/19 13:34
Sample ID   : MW02-100819-0             Date Analyzed: 10/14/19 13:34
Lab Samp ID : J118-01                   Dilution Factor: 1
Lab File ID : RJQ326                    Matrix          : WATER
Ext Btch ID: V005J12                    % Moisture      : NA
Calib. Ref.: RIQ400                      Instrument ID   : T-005
=====

```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	0.76	0.20	0.10
VINYL CHLORIDE	2.7E	0.10	0.020
TETRACHLOROETHENE	ND	0.20	0.10
TCE	ND	0.20	0.10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	0.508	0.5000	102	70-130
4-BROMOFLUOROBENZENE	0.456	0.5000	91.2	70-130
TOLUENE-D8	0.476	0.5000	95.3	70-130

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

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=====
Client      : TESTAMERICA, INC.           Date Collected: 10/08/19
Project     : NW PIPE COMPANY GW MONITORING Date Received: 10/11/19
Batch No.   : 19J118                     Date Extracted: 10/15/19 13:48
Sample ID   : MW02-100819-ODL           Date Analyzed: 10/15/19 13:48
Lab Samp ID: J118-01I                   Dilution Factor: 5
Lab File ID: RJQ357                     Matrix          : WATER
Ext Btch ID: V005J13                   % Moisture     : NA
Calib. Ref.: RIQ400                    Instrument ID   : T-005
=====
  
```

PARAMETERS	RESULTS (ug/l)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	0.73J	1.0	0.50
VINYL CHLORIDE	2.9	0.50	0.10
TETRACHLOROETHENE	ND	1.0	0.50
TCE	ND	1.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	2.57	2.500	103	70-130
4-BROMOFLUOROBENZENE	2.29	2.500	91.8	70-130
TOLUENE-D8	2.41	2.500	96.5	70-130

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

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=====
Client      : TESTAMERICA, INC.           Date Collected: 10/08/19
Project     : NW PIPE COMPANY GW MONITORING Date Received: 10/11/19
Batch No.   : 19J118                     Date Extracted: 10/15/19 12:58 # 10/15/19 12:33
Sample ID   : MW04-100819-0              Date Analyzed: 10/15/19 12:58 # 10/15/19 12:33
Lab Samp ID: J118-02J #J118-02I          Dilution Factor: 10 # 100
Lab File ID: RJQ355 #RJQ354              Matrix          : WATER
Ext Btch ID: V005J13 #V005J13           % Moisture      : NA
Calib. Ref.: RIQ400 #RIQ400             Instrument ID    : T-005
=====

```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# CIS-1,2-DICHLOROETHYLENE	120	20	10
VINYL CHLORIDE	5.6	1.0	0.20
TETRACHLOROETHENE	10	2.0	1.0
TCE	16	2.0	1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	5.26	5.000	105	70-130
4-BROMOFLUOROBENZENE	4.48	5.000	89.6	70-130
TOLUENE-D8	4.69	5.000	93.8	70-130
# 1,2-DICHLOROETHANE-D4	46.5	50.00	93.1	70-130
# 4-BROMOFLUOROBENZENE	42.4	50.00	84.9	70-130
# TOLUENE-D8	43.8	50.00	87.5	70-130

Members of the Associated File

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

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=====
Client      : TESTAMERICA, INC.           Date Collected: 10/08/19
Project     : NW PIPE COMPANY GW MONITORING Date Received: 10/11/19
Batch No.   : 19J118                     Date Extracted: 10/15/19 12:58
Sample ID   : MW04-100819-0             Date Analyzed: 10/15/19 12:58
Lab Samp ID: J118-02J                   Dilution Factor: 10
Lab File ID: RJQ355                     Matrix          : WATER
Ext Btch ID: V005J13                   % Moisture     : NA
Calib. Ref.: RIQ400                     Instrument ID   : T-005
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	150E	2.0	1.0
VINYL CHLORIDE	5.6	1.0	0.20
TETRACHLOROETHENE	10	2.0	1.0
TCE	16	2.0	1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	5.26	5.000	105	70-130
4-BROMOFLUOROBENZENE	4.48	5.000	89.6	70-130
TOLUENE-D8	4.69	5.000	93.8	70-130

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

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=====
Client      : TESTAMERICA, INC.           Date Collected: 10/08/19
Project     : NW PIPE COMPANY GW MONITORING Date Received: 10/11/19
Batch No.   : 19J118                     Date Extracted: 10/15/19 12:33
Sample ID   : MW04-100819-ODL           Date Analyzed: 10/15/19 12:33
Lab Samp ID: J118-021                   Dilution Factor: 100
Lab File ID: RJQ354                     Matrix          : WATER
Ext Btch ID: V005J13                    % Moisture     : NA
Calib. Ref.: RIQ400                     Instrument ID   : T-005
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	120	20	10
VINYL CHLORIDE	4.8J	10	2.0
TETRACHLOROETHENE	ND	20	10
TCE	14J	20	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	46.5	50.00	93.1	70-130
4-BROMOFLUOROBENZENE	42.4	50.00	84.9	70-130
TOLUENE-D8	43.8	50.00	87.5	70-130

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

```

=====
Client      : TESTAMERICA, INC.           Date Collected: 10/08/19
Project     : NW PIPE COMPANY GW MONITORING Date Received: 10/11/19
Batch No.   : 19J118                     Date Extracted: 10/14/19 14:23 # 10/15/19 13:23
Sample ID   : T4S1MW22-100819-0         Date Analyzed: 10/14/19 14:23 # 10/15/19 13:23
Lab Samp ID: J118-03 #J118-031          Dilution Factor: 1 # 10
Lab File ID: RJQ328 #RJQ356             Matrix          : WATER
Ext Btch ID: V005J12 #V005J13          % Moisture      : NA
Calib. Ref.: RIQ400 #RIQ400             Instrument ID    : T-005
=====

```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# CIS-1,2-DICHLOROETHYLENE	7.4	2.0	1.0
VINYL CHLORIDE	0.18	0.10	0.020
TETRACHLOROETHENE	1.3	0.20	0.10
TCE	3.4	0.20	0.10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	0.498	0.5000	99.7	70-130
4-BROMOFLUOROBENZENE	0.461	0.5000	92.2	70-130
TOLUENE-D8	0.486	0.5000	97.2	70-130

# 1,2-DICHLOROETHANE-D4	5.00	5.000	100	70-130
# 4-BROMOFLUOROBENZENE	4.58	5.000	91.7	70-130
# TOLUENE-D8	4.81	5.000	96.1	70-130

Members of the Associated File

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

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=====
Client       : TESTAMERICA, INC.           Date Collected: 10/08/19
Project      : NW PIPE COMPANY GW MONITORING Date Received: 10/11/19
Batch No.    : 19J118                     Date Extracted: 10/14/19 14:23
Sample ID    : T4S1MW22-100819-0         Date Analyzed: 10/14/19 14:23
Lab Samp ID  : J118-03                    Dilution Factor: 1
Lab File ID  : RJQ328                     Matrix          : WATER
Ext Btch ID  : V005J12                    % Moisture     : NA
Calib. Ref.  : RIQ400                     Instrument ID   : T-005
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	6.9E	0.20	0.10
VINYL CHLORIDE	0.18	0.10	0.020
TETRACHLOROETHENE	1.3	0.20	0.10
TCE	3.4	0.20	0.10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	0.498	0.5000	99.7	70-130
4-BROMOFLUOROBENZENE	0.461	0.5000	92.2	70-130
TOLUENE-D8	0.486	0.5000	97.2	70-130

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

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=====
Client      : TESTAMERICA, INC.           Date Collected: 10/08/19
Project     : NW PIPE COMPANY GW MONITORING Date Received: 10/11/19
Batch No.   : 19J118                     Date Extracted: 10/15/19 13:23
Sample ID   : T4S1MW22-100819-ODL       Date Analyzed: 10/15/19 13:23
Lab Samp ID: J118-031                   Dilution Factor: 10
Lab File ID: RJO356                     Matrix          : WATER
Ext Btch ID: V005J13                    % Moisture     : NA
Calib. Ref.: RIQ400                     Instrument ID   : T-005
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	7.4	2.0	1.0
VINYL CHLORIDE	0.22J	1.0	0.20
TETRACHLOROETHENE	1.2J	2.0	1.0
TCE	3.3	2.0	1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	5.00	5.000	100	70-130
4-BROMOFLUOROBENZENE	4.58	5.000	91.7	70-130
TOLUENE-D8	4.81	5.000	96.1	70-130

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

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=====
Client       : TESTAMERICA, INC.           Date Collected: 10/08/19
Project      : NW PIPE COMPANY GW MONITORING Date Received: 10/11/19
Batch No.    : 19J118                     Date Extracted: 10/14/19 14:48
Sample ID    : T4S1MW23-100819-0         Date Analyzed: 10/14/19 14:48
Lab Samp ID  : J118-04                   Dilution Factor: 1
Lab File ID  : RJQ329                    Matrix          : WATER
Ext Btch ID  : V005J12                   % Moisture      : NA
Calib. Ref.  : RIQ400                    Instrument ID   : T-005
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	0.58	0.20	0.10
VINYL CHLORIDE	ND	0.10	0.020
TETRACHLOROETHENE	1.6	0.20	0.10
TCE	0.40	0.20	0.10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	0.514	0.5000	103	70-130
4-BROMOFLUOROBENZENE	0.454	0.5000	90.7	70-130
TOLUENE-D8	0.480	0.5000	96.1	70-130

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

```

=====
Client       : TESTAMERICA, INC.           Date Collected: 10/09/19
Project      : NW PIPE COMPANY GW MONITORING Date Received: 10/11/19
Batch No.    : 19J118                     Date Extracted: 10/15/19 14:37 # 10/15/19 12:08
Sample ID    : MW01-100919-0              Date Analyzed: 10/15/19 14:37 # 10/15/19 12:08
Lab Samp ID  : J118-05J #J118-05I         Dilution Factor: 25 # 250
Lab File ID  : RJQ359 #RJQ353            Matrix          : WATER
Ext Btch ID  : V005J13 #V005J13          % Moisture      : NA
Calib. Ref.  : RIQ400 #RIQ400            Instrument ID   : T-005
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# CIS-1,2-DICHLOROETHYLENE	140	50	25
VINYL CHLORIDE	17	2.5	0.50
# TETRACHLOROETHENE	150	50	25
TCE	18	5.0	2.5

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	13.3	12.50	106	70-130
4-BROMOFLUOROBENZENE	11.4	12.50	90.8	70-130
TOLUENE-D8	11.8	12.50	94.1	70-130
# 1,2-DICHLOROETHANE-D4	118	125.0	94.3	70-130
# 4-BROMOFLUOROBENZENE	111	125.0	89.2	70-130
# TOLUENE-D8	115	125.0	92.0	70-130

Members of the Associated File

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

```

=====
Client      : TESTAMERICA, INC.           Date Collected: 10/09/19
Project     : NW PIPE COMPANY GW MONITORING Date Received: 10/11/19
Batch No.   : 19J118                     Date Extracted: 10/15/19 14:37
Sample ID   : MW01-100919-0             Date Analyzed: 10/15/19 14:37
Lab Samp ID : J118-05J                   Dilution Factor: 25
Lab File ID : RJQ359                     Matrix          : WATER
Ext Btch ID : V005J13                     % Moisture     : NA
Calib. Ref. : RIQ400                     Instrument ID   : T-005
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	170E	5.0	2.5
VINYL CHLORIDE	17	2.5	0.50
TETRACHLOROETHENE	160E	5.0	2.5
TCE	18	5.0	2.5

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	13.3	12.50	106	70-130
4-BROMOFLUOROBENZENE	11.4	12.50	90.8	70-130
TOLUENE-D8	11.8	12.50	94.1	70-130

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

```

=====
Client       : TESTAMERICA, INC.           Date Collected: 10/09/19
Project      : NW PIPE COMPANY GW MONITORING Date Received: 10/11/19
Batch No.    : 19J118                     Date Extracted: 10/15/19 12:08
Sample ID    : MW01-100919-ODL           Date Analyzed: 10/15/19 12:08
Lab Samp ID  : J118-051                  Dilution Factor: 250
Lab File ID  : RJQ353                    Matrix          : WATER
Ext Btch ID  : V005J13                   % Moisture     : NA
Calib. Ref.  : RIQ400                    Instrument ID   : T-005
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	140	50	25
VINYL CHLORIDE	14J	25	5.0
TETRACHLOROETHENE	150	50	25
TCE	ND	50	25

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	118	125.0	94.3	70-130
4-BROMOFLUOROBENZENE	111	125.0	89.2	70-130
TOLUENE-D8	115	125.0	92.0	70-130

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

```

=====
Client      : TESTAMERICA, INC.           Date Collected: 10/09/19
Project     : NW PIPE COMPANY GW MONITORING Date Received: 10/11/19
Batch No.   : 19J118                     Date Extracted: 10/15/19 11:43
Sample ID   : MW06-100919-0             Date Analyzed: 10/15/19 11:43
Lab Samp ID : J118-061                  Dilution Factor: 500
Lab File ID : RJQ352                    Matrix          : WATER
Ext Btch ID: V005J13                    % Moisture     : NA
Calib. Ref.: RIQ400                     Instrument ID   : T-005
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	1700	100	50
VINYL CHLORIDE	110	50	10
TETRACHLOROETHENE	520	100	50
TCE	110	100	50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	249	250.0	99.5	70-130
4-BROMOFLUOROBENZENE	225	250.0	90.2	70-130
TOLUENE-D8	233	250.0	93.1	70-130

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

```

=====
Client      : TESTAMERICA, INC.           Date Collected: 10/09/19
Project    : NW PIPE COMPANY GW MONITORING Date Received: 10/11/19
Batch No.  : 19J118                      Date Extracted: 10/15/19 15:52 # 10/15/19 10:28
Sample ID  : MW03-100919-0              Date Analyzed: 10/15/19 15:52 # 10/15/19 10:28
Lab Samp ID: J118-07J #J118-07I        Dilution Factor: 50 # 1000
Lab File ID: RJQ362 #RJQ349           Matrix       : WATER
Ext Btch ID: V005J13 #V005J13        % Moisture   : NA
Calib. Ref.: RIQ400 #RIQ400          Instrument ID : T-005
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# CIS-1,2-DICHLOROETHYLENE	990	200	100
VINYL CHLORIDE	.62	5.0	1.0
# TETRACHLOROETHENE	530	200	100
TCE	160	10	5.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	26.1	25.00	105	70-130
4-BROMOFLUOROBENZENE	22.7	25.00	90.7	70-130
TOLUENE-D8	23.9	25.00	95.7	70-130

# 1,2-DICHLOROETHANE-D4	483	500.0	96.6	70-130
# 4-BROMOFLUOROBENZENE	457	500.0	91.4	70-130
# TOLUENE-D8	478	500.0	95.6	70-130

Members of the Associated File

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

```

=====
Client      : TESTAMERICA, INC.           Date Collected: 10/09/19
Project     : NW PIPE COMPANY GW MONITORING Date Received: 10/11/19
Batch No.   : 19J118                     Date Extracted: 10/15/19 15:52
Sample ID   : MW03-100919-0             Date Analyzed: 10/15/19 15:52
Lab Samp ID: J118-07J                   Dilution Factor: 50
Lab File ID: RJQ362                     Matrix          : WATER
Ext Btch ID: V005J13                    % Moisture     : NA
Calib. Ref.: RIQ400                     Instrument ID   : T-005
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	1200E	10	5.0
VINYL CHLORIDE	62	5.0	1.0
TETRACHLOROETHENE	560E	10	5.0
TCE	160	10	5.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	26.1	25.00	105	70-130
4-BROMOFLUOROBENZENE	22.7	25.00	90.7	70-130
TOLUENE-D8	23.9	25.00	95.7	70-130

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

```

=====
Client      : TESTAMERICA, INC.           Date Collected: 10/09/19
Project     : NW PIPE COMPANY GW MONITORING Date Received: 10/11/19
Batch No.   : 19J118                     Date Extracted: 10/15/19 10:28
Sample ID   : MW03-100919-ODL           Date Analyzed: 10/15/19 10:28
Lab Samp ID : J118-071                   Dilution Factor: 1000
Lab File ID : RJQ349                     Matrix          : WATER
Ext Btch ID : V005J13                    % Moisture     : NA
Calib. Ref. : RIQ400                     Instrument ID   : T-005
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	990	200	100
VINYL CHLORIDE	55J	100	20
TETRACHLOROETHENE	530	200	100
TCE	150J	200	100

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	483	500.0	96.6	70-130
4-BROMOFLUOROBENZENE	457	500.0	91.4	70-130
TOLUENE-D8	478	500.0	95.6	70-130

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

```

=====
Client       : TESTAMERICA, INC.           Date Collected: 10/09/19
Project      : NW PIPE COMPANY GW MONITORING Date Received: 10/11/19
Batch No.    : 19J118                     Date Extracted: 10/15/19 16:17 # 10/15/19 10:53
Sample ID    : MW05-100919-0             Date Analyzed: 10/15/19 16:17 # 10/15/19 10:53
Lab Samp ID  : J118-08J #J118-08I        Dilution Factor: 50 # 1000
Lab File ID  : RJQ363 #RJQ350           Matrix          : WATER
Ext Btch ID  : V005J13 #V005J13        % Moisture      : NA
Calib. Ref.  : RIQ400 #RIQ400          Instrument ID   : T-005
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# CIS-1,2-DICHLOROETHYLENE	2200	200	100
VINYL CHLORIDE	120	5.0	1.0
# TETRACHLOROETHENE	2300	200	100
TCE	140	10	5.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	28.0	25.00	112	70-130
4-BROMOFLUOROBENZENE	22.6	25.00	90.3	70-130
TOLUENE-D8	23.2	25.00	92.7	70-130
# 1,2-DICHLOROETHANE-D4	499	500.0	99.8	70-130
# 4-BROMOFLUOROBENZENE	465	500.0	92.9	70-130
# TOLUENE-D8	475	500.0	95.0	70-130

Members of the Associated File

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

```

=====
Client       : TESTAMERICA, INC.           Date Collected: 10/09/19
Project      : NW PIPE COMPANY GW MONITORING Date Received: 10/11/19
Batch No.    : 19J118                     Date Extracted: 10/15/19 16:17
Sample ID    : MW05-100919-0             Date Analyzed: 10/15/19 16:17
Lab Samp ID  : J118-08J                  Dilution Factor: 50
Lab File ID  : RJQ363                     Matrix          : WATER
Ext Btch ID  : V005J13                    % Moisture      : NA
Calib. Ref.  : RIQ400                     Instrument ID   : T-005
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	2600E	10	5.0
VINYL CHLORIDE	120	5.0	1.0
TETRACHLOROETHENE	2400E	10	5.0
TCE	140	10	5.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	28.0	25.00	112	70-130
4-BROMOFLUOROBENZENE	22.6	25.00	90.3	70-130
TOLUENE-D8	23.2	25.00	92.7	70-130

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

```

=====
Client      : TESTAMERICA, INC.           Date Collected: 10/09/19
Project     : NW PIPE COMPANY GW MONITORING Date Received: 10/11/19
Batch No.   : 19J118                     Date Extracted: 10/15/19 10:53
Sample ID   : MW05-100919-ODL           Date Analyzed: 10/15/19 10:53
Lab Samp ID: J118-081                   Dilution Factor: 1000
Lab File ID: RQ350                       Matrix          : WATER
Ext Btch ID: V005J13                     % Moisture     : NA
Calib. Ref.: RIQ400                       Instrument ID   : T-005
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	2200	200	100
VINYL CHLORIDE	120	100	20
TETRACHLOROETHENE	2300	200	100
TCE	140J	200	100

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	499	500.0	99.8	70-130
4-BROMOFLUOROBENZENE	465	500.0	92.9	70-130
TOLUENE-D8	475	500.0	95.0	70-130

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

```

=====
Client       : TESTAMERICA, INC.           Date Collected: 10/09/19
Project      : NW PIPE COMPANY GW MONITORING Date Received: 10/11/19
Batch No.    : 19J118                     Date Extracted: 10/15/19 16:42 # 10/15/19 11:18
Sample ID    : MW100-100919-0             Date Analyzed: 10/15/19 16:42 # 10/15/19 11:18
Lab Samp ID  : J118-09J #J118-09I        Dilution Factor: 50 # 1000
Lab File ID  : RJQ364 #RJQ351           Matrix          : WATER
Ext Btch ID  : V005J13 #V005J13        % Moisture      : NA
Calib. Ref.  : RIQ400 #RIQ400          Instrument ID   : T-005
=====

```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# CIS-1,2-DICHLOROETHYLENE	1800	200	100
VINYL CHLORIDE	150	5.0	1.0
# TETRACHLOROETHENE	600	200	100
TCE	130	10	5.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	29.1	25.00	116	70-130
4-BROMOFLUOROBENZENE	22.1	25.00	88.3	70-130
TOLUENE-D8	23.4	25.00	93.4	70-130
# 1,2-DICHLOROETHANE-D4	512	500.0	102	70-130
# 4-BROMOFLUOROBENZENE	465	500.0	93.0	70-130
# TOLUENE-D8	474	500.0	94.9	70-130

Members of the Associated File

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

```

=====
Client       : TESTAMERICA, INC.           Date Collected: 10/09/19
Project      : NW PIPE COMPANY GW MONITORING Date Received: 10/11/19
Batch No.    : 19J118                     Date Extracted: 10/15/19 16:42
Sample ID    : MW100-100919-0             Date Analyzed: 10/15/19 16:42
Lab Samp ID  : J118-09J                   Dilution Factor: 50
Lab File ID  : RJQ364                     Matrix          : WATER
Ext Btch ID  : V005J13                    % Moisture     : NA
Calib. Ref.  : RIQ400                     Instrument ID   : T-005
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	2300E	10	5.0
VINYL CHLORIDE	150	5.0	1.0
TETRACHLOROETHENE	630E	10	5.0
TCE	130	10	5.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	29.1	25.00	116	70-130
4-BROMOFLUOROBENZENE	22.1	25.00	88.3	70-130
TOLUENE-D8	23.4	25.00	93.4	70-130

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

```

=====
Client      : TESTAMERICA, INC.           Date Collected: 10/09/19
Project     : NW PIPE COMPANY GW MONITORING Date Received: 10/11/19
Batch No.   : 19J118                     Date Extracted: 10/15/19 11:18
Sample ID   : MW100-100919-ODL          Date Analyzed: 10/15/19 11:18
Lab Samp ID: J118-09I                   Dilution Factor: 1000
Lab File ID: RJQ351                     Matrix          : WATER
Ext Btch ID: V005J13                    % Moisture     : NA
Calib. Ref.: RIQ400                     Instrument ID   : T-005
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	1800	200	100
VINYL CHLORIDE	130	100	20
TETRACHLOROETHENE	600	200	100
TCE	130J	200	100

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	512	500.0	102	70-130
4-BROMOFLUOROBENZENE	465	500.0	93.0	70-130
TOLUENE-D8	474	500.0	94.9	70-130

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

```

=====
Client       : TESTAMERICA, INC.           Date Collected: 10/09/19
Project      : NW PIPE COMPANY GW MONITORING Date Received: 10/11/19
Batch No.    : 19J118                     Date Extracted: 10/14/19 12:19
Sample ID    : TRIPBLANK-100919-0        Date Analyzed: 10/14/19 12:19
Lab Samp ID  : J118-10                    Dilution Factor: 1
Lab File ID  : RJQ323                     Matrix          : WATER
Ext Btch ID  : V005J12                    % Moisture     : NA
Calib. Ref.  : RIQ400                     Instrument ID   : T-005
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	ND	0.20	0.10
VINYL CHLORIDE	ND	0.10	0.020
TETRACHLOROETHENE	ND	0.20	0.10
TCE	ND	0.20	0.10

SURROGATE PARAMETERS	RESULTS	SPK_AMT*	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	0.470	0.5000	94.1	70-130
4-BROMOFLUOROBENZENE	0.465	0.5000	93.0	70-130
TOLUENE-D8	0.484	0.5000	96.8	70-130

1
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11
12

QC SUMMARIES

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

```

=====
Client      : TESTAMERICA, INC.           Date Collected: NA
Project     : NW PIPE COMPANY GW MONITORING Date Received: 10/14/19
Batch No.   : 19J118                     Date Extracted: 10/14/19 11:04
Sample ID   : MBLK1W                     Date Analyzed: 10/14/19 11:04
Lab Samp ID: V005J12B                    Dilution Factor: 1
Lab File ID: RJQ320                       Matrix       : WATER
Ext Btch ID: V005J12                      % Moisture   : NA
Calib. Ref.: RIQ400                       Instrument ID : T-005
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	ND	0.20	0.10
VINYL CHLORIDE	ND	0.10	0.020
TETRACHLOROETHENE	ND	0.20	0.10
TCE	ND	0.20	0.10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	0.474	0.5000	94.8	70-130
4-BROMOFLUOROBENZENE	0.460	0.5000	92.0	70-130
TOLUENE-D8	0.478	0.5000	95.7	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TESTAMERICA, INC.
PROJECT: NW PIPE COMPANY GW MONITORING
BATCH NO.: 19J118
METHOD: SW5030B/8260B SIM

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: VO05J12B VO05J12L VO05J12C
LAB FILE ID: RJQ320 RJQ318 RJQ319
DATE EXTRACTED: 10/14/1911:04 10/14/1910:14 10/14/1910:39 DATE COLLECTED: NA
DATE ANALYZED: 10/14/1911:04 10/14/1910:14 10/14/1910:39 DATE RECEIVED: 10/14/19
PREP. BATCH: VO05J12 VO05J12 VO05J12
CALIB. REF: RIQ400 RIQ400 RIQ400

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
cis-1,2-Dichloroethylene	ND	0.500	0.488	98	0.500	0.510	102	4	70-130	20
Vinyl Chloride	ND	0.500	0.501	100	0.500	0.535	107	7	60-140	20
Tetrachloroethene	ND	0.500	0.452	90	0.500	0.444	89	2	70-130	20
TCE	ND	0.500	0.471	94	0.500	0.481	96	2	70-130	20

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	0.500	0.454	91	0.500	0.497	99	70-130
4-Bromofluorobenzene	0.500	0.453	91	0.500	0.441	88	70-130
Toluene-d8	0.500	0.488	98	0.500	0.474	95	70-130

METHOD SW5030B/8260B SIM
EDB BY GC/MS SIM

```

=====
Client      : TESTAMERICA, INC.           Date Collected: NA
Project     : NW PIPE COMPANY GW MONITORING Date Received: 10/15/19
Batch No.   : 19J118                     Date Extracted: 10/15/19 09:14
Sample ID   : MBLK2W                     Date Analyzed: 10/15/19 09:14
Lab Samp ID: V005J13B                    Dilution Factor: 1
Lab File ID: RJQ346                      Matrix          : WATER
Ext Btch ID: V005J13                    % Moisture      : NA
Calib. Ref.: RIQ400                     Instrument ID   : T-005
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	ND	0.20	0.10
VINYL CHLORIDE	ND	0.10	0.020
TETRACHLOROETHENE	ND	0.20	0.10
TCE	ND	0.20	0.10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	0.497	0.5000	99.4	70-130
4-BROMOFLUOROBENZENE	0.457	0.5000	91.5	70-130
TOLUENE-D8	0.486	0.5000	97.2	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TESTAMERICA, INC.
PROJECT: NW PIPE COMPANY GW MONITORING
BATCH NO.: 19J118
METHOD: SW5030B/8260B SIM

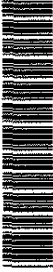
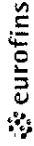
MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK2W
LAB SAMP ID: VO05J13B VO05J13L VO05J13C
LAB FILE ID: RJQ346 RJQ344 RJQ345
DATE EXTRACTED: 10/15/1909:14 10/15/1908:25 10/15/1908:49 DATE COLLECTED: NA
DATE ANALYZED: 10/15/1909:14 10/15/1908:25 10/15/1908:49 DATE RECEIVED: 10/15/19
PREP. BATCH: VO05J13 VO05J13 VO05J13
CALIB. REF: RIQ400 RIQ400 RIQ400

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
cis-1,2-Dichloroethylene	ND	0.500	0.474	95	0.500	0.543	109	13	70-130	20
Vinyl Chloride	ND	0.500	0.516	103	0.500	0.599	120	15	60-140	20
Tetrachloroethene	ND	0.500	0.424	85	0.500	0.469	94	10	70-130	20
TCE	ND	0.500	0.449	90	0.500	0.510	102	13	70-130	20

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	0.500	0.467	93	0.500	0.508	102	70-130
4-Bromofluorobenzene	0.500	0.450	90	0.500	0.437	87	70-130
Toluene-d8	0.500	0.482	96	0.500	0.470	94	70-130

Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM Allen, Kristine D	Carrier Tracking No(s)	COC No 580-71099.1
Client Contact Shipping/Receiving		E-Mail kristine.allen@testamericainc.com	State of Origin Oregon	Page Page 1 of 1
Company TestAmerica Laboratories, Inc		Accreditations Required (See note) 580-89897-1		
Address 17461 Derian Ave, Suite 100,		Preservation Codes: A - HCl B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other		
City Irvine		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)		
State, Zip CA, 92614-5817				
Phone 949-261-1022(Tel) 949-260-3297(Fax)				
Email:				
Project Name Northwest Pipe Company GW Monitoring				
Site				
Due Date Requested: 10/22/2019		Analysis Requested		
TAT Requested (days)				
PO #				
WO #				
Project # 58013218				
SSOW#				
Sample Identification - Client ID (Lab ID)		Field Filtered Sample (Yes or No)	Field Method (Yes or No)	RSK_175/ Methane
Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Invertebrate, Shellfish, Crustacean)	Preservation Code
10/8/19	08:55 Pacific	Water	Water	X
10/8/19	10:00 Pacific	Water	Water	X
10/8/19	11:40 Pacific	Water	Water	X
10/8/19	13:20 Pacific	Water	Water	X
10/9/19	08:50 Pacific	Water	Water	X
10/9/19	10:27 Pacific	Water	Water	X
10/9/19	12:15 Pacific	Water	Water	X
10/9/19	12:35 Pacific	Water	Water	X
10/9/19	12:00 Pacific	Water	Water	X
Total Number of containers				
Special Instructions/Note:				
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis, the matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.				
Possible Hazard Identification				
Unconfirmed				
Deliverable Requested: I, II, III, IV, Other (specify)				
Primary Deliverable Rank: 2				
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months				
Special Instructions/QC Requirements				
Empty Kit Relinquished by:				
Relinquished by		Date/Time	Company	Method of Shipment:
Tom Blankenship		10/10/19	TA-Sea	Date/Time
Relinquished by		Date/Time	Company	Date/Time
Relinquished by		Date/Time	Company	Date/Time
Relinquished by		Date/Time	Company	Date/Time
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks:		
		10/11/19 1050 Company AIR		



Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 580-89897-1

Login Number: 89897

List Source: Eurofins TestAmerica, Seattle

List Number: 1

Creator: Hobbs, Kenneth F

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 580-89897-1

Login Number: 89897
List Number: 2
Creator: Ornelas, Olga

List Source: Eurofins TestAmerica, Irvine
List Creation: 10/11/19 01:00 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 580-89897-1

Login Number: 89897
List Number: 3
Creator: Ornelas, Olga

List Source: Eurofins TestAmerica, Irvine
List Creation: 10/11/19 04:19 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	