

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-82404-1

Client Project/Site: Northwest Pipe Company GW Monitoring

For:

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

Attn: Bernice Kidd



Authorized for release by:
12/24/2018 11:26:21 AM

Kristine Allen, Manager of Project Management
(253)248-4970

kristine.allen@testamericainc.com

LINKS

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www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

TestAmerica Job ID: 580-82404-1

Job ID: 580-82404-1

Laboratory: TestAmerica Seattle

Narrative

Job Narrative 580-82404-1

Comments

No additional comments.

Receipt

The samples were received on 12/6/2018 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.5° C.

Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): MW02-120518-0 (580-82404-4). The container labels list the sampling time 1300, while the COC lists 1500. The sample is logged in per the COC.

The following samples were canceled by the client on 12/6/18 for carbon dioxide analysis: TB-120518 (580-82404-1), T4S1MW09-120518-0 (580-82404-2), T4S1MW3S-120518-0 (580-82404-3) and MW02-120518-0 (580-82404-4).

GC VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

Method(s) 300.0: Sulfate was detected in the method blank greater than the method detection limit but less than the reporting limit.

No additional analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Subcontract Work

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

Definitions/Glossary

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

TestAmerica Job ID: 580-82404-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
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

TestAmerica Job ID: 580-82404-1

Client Sample ID: T4S1MW09-120518-0

Lab Sample ID: 580-82404-2

Date Collected: 12/05/18 11:00

Matrix: Water

Date Received: 12/06/18 09:00

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (FID)	ND		0.99	0.25	ug/L			12/13/18 14:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.8		0.90	0.14	mg/L			12/06/18 17:28	1
NO3 as N	1.2		0.20	0.020	mg/L			12/06/18 17:28	1
Sulfate	5.6	B	1.2	0.26	mg/L			12/06/18 17:28	1
Total Organic Carbon	0.66	J	1.0	0.19	mg/L			12/11/18 15:32	1



Client Sample Results

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

TestAmerica Job ID: 580-82404-1

Client Sample ID: T4S1MW3S-120518-0

Lab Sample ID: 580-82404-3

Date Collected: 12/05/18 12:25

Matrix: Water

Date Received: 12/06/18 09:00

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (FID)	100		0.99	0.25	ug/L			12/13/18 15:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.6		0.90	0.14	mg/L			12/06/18 18:14	1
NO3 as N	1.2		0.20	0.020	mg/L			12/06/18 18:14	1
Sulfate	13	B	1.2	0.26	mg/L			12/06/18 18:14	1
Total Organic Carbon	0.82	J	1.0	0.19	mg/L			12/11/18 15:32	1



Client Sample Results

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

TestAmerica Job ID: 580-82404-1

Client Sample ID: MW02-120518-0

Lab Sample ID: 580-82404-4

Date Collected: 12/05/18 15:00

Matrix: Water

Date Received: 12/06/18 09:00

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (TCD)	7300		1000	500	ug/L			12/13/18 15:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.9		0.90	0.14	mg/L			12/06/18 18:26	1
NO3 as N	ND		0.20	0.020	mg/L			12/06/18 18:26	1
Sulfate	2.5	B	1.2	0.26	mg/L			12/06/18 18:26	1
Total Organic Carbon	1.6		1.0	0.19	mg/L			12/11/18 15:32	1

QC Sample Results

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

TestAmerica Job ID: 580-82404-1

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 440-516880/8

Matrix: Water

Analysis Batch: 516880

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			12/13/18 14:32	1
Methane (TCD)	ND		1000	500	ug/L			12/13/18 14:32	1

Lab Sample ID: LCS 440-516880/4

Matrix: Water

Analysis Batch: 516880

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	3350		ug/L		80	80 - 120

Lab Sample ID: LCS 440-516880/6

Matrix: Water

Analysis Batch: 516880

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	80.4		ug/L		96	80 - 120

Lab Sample ID: LCSD 440-516880/5

Matrix: Water

Analysis Batch: 516880

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	3340		ug/L		80	80 - 120	1	20

Lab Sample ID: LCSD 440-516880/7

Matrix: Water

Analysis Batch: 516880

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	80.4		ug/L		96	80 - 120	0	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 580-290478/3

Matrix: Water

Analysis Batch: 290478

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			12/06/18 10:22	1
Sulfate	0.413	J	1.2	0.26	mg/L			12/06/18 10:22	1

Lab Sample ID: LCS 580-290478/4

Matrix: Water

Analysis Batch: 290478

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	50.0		mg/L		100	90 - 110
Sulfate	50.0	49.7		mg/L		99	90 - 110

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-82404-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 580-290478/5
Matrix: Water
Analysis Batch: 290478

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	50.0		mg/L		100	90 - 110	0	15
Sulfate	50.0	49.7		mg/L		99	90 - 110	0	15

Lab Sample ID: MB 580-290551/3
Matrix: Water
Analysis Batch: 290551

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			12/06/18 10:22	1

Lab Sample ID: LCS 580-290551/4
Matrix: Water
Analysis Batch: 290551

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	5.00		mg/L		100	90 - 110

Lab Sample ID: LCSD 580-290551/5
Matrix: Water
Analysis Batch: 290551

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	4.99		mg/L		100	90 - 110	0	15

Lab Sample ID: 580-82404-2 MS
Matrix: Water
Analysis Batch: 290551

Client Sample ID: T4S1MW09-120518-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
NO3 as N	1.2		5.00	6.53		mg/L		106	90 - 110

Lab Sample ID: 580-82404-2 MS
Matrix: Water
Analysis Batch: 290579

Client Sample ID: T4S1MW09-120518-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.8		50.0	55.6		mg/L		107	90 - 110
Sulfate	5.6	B	50.0	60.0		mg/L		109	90 - 110

Method: SM 5310C - TOC

Lab Sample ID: MB 580-290953/25
Matrix: Water
Analysis Batch: 290953

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		1.0	0.19	mg/L			12/11/18 15:32	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-82404-1

Method: SM 5310C - TOC (Continued)

Lab Sample ID: MB 580-290953/3

Matrix: Water

Analysis Batch: 290953

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		1.0	0.19	mg/L			12/11/18 15:32	1

Lab Sample ID: LCS 580-290953/26

Matrix: Water

Analysis Batch: 290953

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	10.0	9.09		mg/L		91	85 - 115

Lab Sample ID: 580-82404-4 MS

Matrix: Water

Analysis Batch: 290953

Client Sample ID: MW02-120518-0

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	1.6		10.0	10.6		mg/L		90	85 - 115

Lab Sample ID: 580-82404-4 MSD

Matrix: Water

Analysis Batch: 290953

Client Sample ID: MW02-120518-0

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	1.6		10.0	11.2		mg/L		96	85 - 115	6	20

Lab Chronicle

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

TestAmerica Job ID: 580-82404-1

Client Sample ID: T4S1MW09-120518-0

Lab Sample ID: 580-82404-2

Date Collected: 12/05/18 11:00

Matrix: Water

Date Received: 12/06/18 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	516880	12/13/18 14:53	EI	TAL IRV
Total/NA	Analysis	300.0		1	290551	12/06/18 17:28	EMM	TAL SEA
Total/NA	Analysis	300.0		1	290579	12/06/18 17:28	EMM	TAL SEA
Total/NA	Analysis	SM 5310C		1	290953	12/11/18 15:32	HJM	TAL SEA

Client Sample ID: T4S1MW3S-120518-0

Lab Sample ID: 580-82404-3

Date Collected: 12/05/18 12:25

Matrix: Water

Date Received: 12/06/18 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	516880	12/13/18 15:09	EI	TAL IRV
Total/NA	Analysis	300.0		1	290551	12/06/18 18:14	EMM	TAL SEA
Total/NA	Analysis	300.0		1	290579	12/06/18 18:14	EMM	TAL SEA
Total/NA	Analysis	SM 5310C		1	290953	12/11/18 15:32	HJM	TAL SEA

Client Sample ID: MW02-120518-0

Lab Sample ID: 580-82404-4

Date Collected: 12/05/18 15:00

Matrix: Water

Date Received: 12/06/18 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	516880	12/13/18 15:24	EI	TAL IRV
Total/NA	Analysis	300.0		1	290551	12/06/18 18:26	EMM	TAL SEA
Total/NA	Analysis	300.0		1	290579	12/06/18 18:26	EMM	TAL SEA
Total/NA	Analysis	SM 5310C		1	290953	12/11/18 15:32	HJM	TAL SEA

Laboratory References:

EMAX Lab. = EMAX Laboratories Inc, 1835 W. 205th Street, Torrance, CA 90501
 TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022
 TAL SEA = 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

TestAmerica Job ID: 580-82404-1

Laboratory: TestAmerica Seattle

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-024	01-19-19
ANAB	DoD ELAP		L2236	01-19-19
ANAB	ISO/IEC 17025		L2236	01-19-19
California	State Program	9	2901	11-05-19
Montana (UST)	State Program	8	N/A	04-30-20
Nevada	State Program	9	WA000502019-1	07-31-19
Oregon	NELAP	10	WA100007	11-05-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-14-00126	02-10-20
Washington	State Program	10	C553	02-17-19

Laboratory: TestAmerica Irvine

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	CA01531	06-30-19
Arizona	State Program	9	AZ0671	10-14-19
California	LA Cty Sanitation Districts	9	10256	06-30-19
California	State Program	9	CA ELAP 2706	06-30-19
Guam	State Program	9	Cert. No. 17-003R	01-23-19 *
Hawaii	State Program	9	N/A	01-29-19 *
Kansas	NELAP	7	E-10420	07-31-19
Nevada	State Program	9	CA015312018-1	07-31-19
New Mexico	State Program	6	N/A	01-29-19 *
Oregon	NELAP	10	4028	01-29-19 *
US Fish & Wildlife	Federal		058448	07-31-19
USDA	Federal		P330-18-00214	07-09-21
Washington	State Program	10	C900	09-03-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Sample Summary

Client: CH2M Hill, Inc.

TestAmerica Job ID: 580-82404-1

Project/Site: Northwest Pipe Company GW Monitoring

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-82404-1	TB-120518	Water	12/05/18 00:01	12/06/18 09:00
580-82404-2	T4S1MW09-120518-0	Water	12/05/18 11:00	12/06/18 09:00
580-82404-3	T4S1MW3S-120518-0	Water	12/05/18 12:25	12/06/18 09:00
580-82404-4	MW02-120518-0	Water	12/05/18 15:00	12/06/18 09:00

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Date: 12-20-2018
EMAX Batch No.: 18L094

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 12/07/18.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
TB-120518	L094-01	12/05/18	WATER	VOC SIM
T4S1MW09-120518-0	L094-02	12/05/18	WATER	VOC SIM
T4S1MW3S-120518-0	L094-03	12/05/18	WATER	VOC SIM
MW02-120518-0	L094-04	12/05/18	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 NELAC & DOD requirements unless noted in the Case Narrative.

NELAP Accredited Certificate Number CA002912017-13
ANAB Accredited DoD ELAP and ISO/IEC 17025 Certificate Number L2278 Testing
California ELAP Accredited Certificate Number 2672

Chain of Custody Record

18L094



Client Information (Sub Contract Lab)		Carrier Tracking No(s): 580-61927-1							
Client Contact: Shipping/Receiving		Page: Page 1 of 1							
Company: EMAX Laboratories Inc		Job #: 580-82404-1							
Address: 1835 W. 205th Street, Torrance, CA, 90501		State of Origin: Oregon							
Phone: [Redacted]		Accreditations Required (See note):							
Lab P/N: Allen, Kristine D		Analysis Requested							
E-Mail: kristine.allen@testamericainc.com		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:							
Due Date Requested: 12/18/2018		Total Number of Containers: 3							
TAT Requested (days):		Special Instructions/Note:							
PO #:		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)							
WO #:		Other:							
Project #: 58013218		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>							
SSOW#:		Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/>							
Project Name: Northwest Pipe Company GW Monitoring		S/B (TCE, cis 1,2-DCE, PCE, Vinyl Chloride) <input checked="" type="checkbox"/>							
Site:		1,2-DCE, cis 1,2-DCE, PCE, Vinyl Chloride							
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewat, BT=tissue, A=air)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	S/B (TCE, cis 1,2-DCE, PCE, Vinyl Chloride)	Total Number of Containers
[Redacted]	12/5/18	00:01 Pacific	Water	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	3
[Redacted]	12/5/18	11:00 Pacific	Water	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	3
[Redacted]	12/5/18	12:25 Pacific	Water	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	3
[Redacted]	12/5/18	15:00 Pacific	Water	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	3

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out 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/test/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) Return To Client Disposal By Lab Archive For Months

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Primary Deliverable Rank: 2
 Date: 12/6/18
 Relinquished by: Tom Stankis
 Relinquished by: [Signature]
 Relinquished by: [Signature]
 Custody Seals Intact: Yes No
 Custody Seal No.:
 Cooler Temperature(s) °C and Other Remarks:

SAMPLE RECEIPT FORM 1

Type of Delivery <input checked="" type="checkbox"/> Fedex <input type="checkbox"/> UPS <input type="checkbox"/> GSO <input type="checkbox"/> Others <input type="checkbox"/> EMAX Courier <input type="checkbox"/> Client Delivery	Airbill / Tracking Number 4408 8717 8877	ECN 18L094 Recipient <u>Nery Casillo</u> Date <u>12/7/18</u> Time <u>0930</u>
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COC INSPECTION

<input checked="" type="checkbox"/> Client Name	<input checked="" type="checkbox"/> Client PM/FC	<input type="checkbox"/> Sampler Name	<input checked="" type="checkbox"/> Sampling Date/Time	<input checked="" type="checkbox"/> Sample ID	<input checked="" type="checkbox"/> Matrix
<input checked="" type="checkbox"/> Address	<input checked="" type="checkbox"/> Tel # / Fax #	<input type="checkbox"/> Courier Signature	<input checked="" type="checkbox"/> Analysis Required	<input type="checkbox"/> Preservative (if any)	<input checked="" type="checkbox"/> TAT
Safety Issues (if any)	<input type="checkbox"/> High concentrations expected	<input type="checkbox"/> From Superfund Site	<input type="checkbox"/> Rad screening required		

Note: Corrections on COC not involved / dated

PACKAGING INSPECTION

Container	<input checked="" type="checkbox"/> Cooler	<input checked="" type="checkbox"/> Box	<input type="checkbox"/> Other
Condition	<input checked="" type="checkbox"/> Custody Seal	<input type="checkbox"/> Intact	<input type="checkbox"/> Damaged
Packaging	<input checked="" type="checkbox"/> Bubble Pack	<input type="checkbox"/> Styrofoam	<input type="checkbox"/> Popcorn
Temperatures (Cool, ≤6 °C but not frozen)	<input checked="" type="checkbox"/> Cooler 1 <u>1.9</u> °C	<input type="checkbox"/> Cooler 2 _____ °C	<input type="checkbox"/> Cooler 3 _____ °C
Thermometer:	<input checked="" type="checkbox"/> Cooler 6 _____ °C	<input type="checkbox"/> Cooler 7 _____ °C	<input type="checkbox"/> Cooler 8 _____ °C
	<input type="checkbox"/> Cooler 9 _____ °C	<input type="checkbox"/> Cooler 10 _____ °C	

Comments: Temperature is out of range. PM was informed IMMEDIATELY.

Note: _____

DISCREPANCIES

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action
1	1-3	D1		R1
1-4	1-12	D16	HCl on labels	R1 - labels
2-4	4-12	D2	(VOCs, SW826OC) on label	R1
3	7-9	D3	Label - T451MW035-120518-0	R1
<i>[Large diagonal scribble across the table]</i>				

12/7/18

pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time.

NOTES/OBSERVATIONS: Time on label for sample #1 written as 12:01 am. Time on label for sample #2 written as 3:00 pm

LEGEND:

<p>Code Description- Sample Management</p> <p><u>D1</u> Analysis is not indicated in <u>label</u></p> <p><u>D2</u> Analysis mismatch COC vs <u>label</u></p> <p>D3 Sample ID mismatch COC vs label</p> <p>D4 Sample ID is not indicated in _____</p> <p>D5 Container -[improper] [leaking] [broken]</p> <p>D6 Date/Time is not indicated in _____</p> <p>D7 Date/Time mismatch COC vs label</p> <p>D8 Sample listed in COC is not received</p> <p>D9 Sample received is not listed in COC</p> <p>D10 No initial/date on corrections in COC/label</p> <p>D11 Container count mismatch COC vs received</p> <p>D12 Container size mismatch COC vs received</p>	<p>Code Description-Sample Management</p> <p>D13 Out of Holding Time</p> <p>D14 Bubble is >6mm</p> <p>D15 No trip blank in cooler</p> <p><u>D16</u> Preservation not indicated in <u>COC</u></p> <p>D17 Preservation mismatch COC vs label</p> <p>D18 Insufficient chemical preservative</p> <p>D19 Insufficient Sample</p> <p>D20 No filtration info for dissolved analysis</p> <p>D21 No sample for moisture determination</p> <p>D22 _____</p> <p>D23 _____</p> <p>D24 _____</p>	<p><input type="checkbox"/> Continue to next page.</p> <p>Code Description-Sample Management</p> <p>R1 Proceed as indicated in <input checked="" type="checkbox"/> COC <input type="checkbox"/> Label</p> <p>R2 Refer to attached instruction</p> <p>R3 Cancel the analysis</p> <p>R4 Use vial with smallest bubble first</p> <p>R5 Log-in with latest sampling date and time+1 min</p> <p>R6 Adjust pH as necessary</p> <p>R7 Filter and preserved as necessary</p> <p>R8 _____</p> <p>R9 _____</p> <p>R10 _____</p> <p>R11 _____</p> <p>R12 _____</p>
--	---	--

REVIEWS:

Sample Labeling <u>[Signature]</u>	SRF <u>[Signature]</u>	PM <u>[Signature]</u>
Date <u>12/7/18</u>	Date <u>12/7/18</u>	Date <u>12/7/18</u>

EMAX Laboratories, Inc. 1835 W. 205th St., Torrance, Ca 90501

ORIGIN ID:TCMA (253) 922-2310
SAMPLE RECEIVING
TA-SEATTLE
5755 8th AVE
SEATTLE, WA 98148

SHIP DATE: 06DEC18
ACT WGT: 11.30 LB
CAD: 989746/CAFE3211

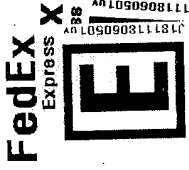
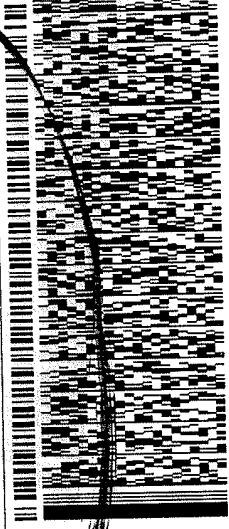
BILL SENDER

UNITED STATES US

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

TORRANCE CA 90501

(253) 922-2310 REF: S580-31830
PO. NO

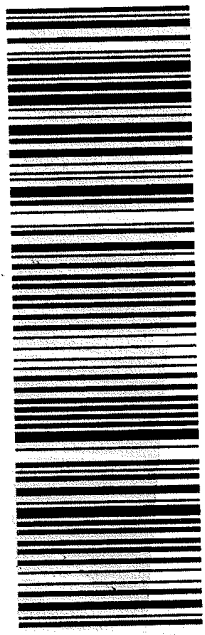


FRI - 07 DEC 10:30A
PRIORITY OVERNIGHT!

TRK# 4668 8717 8877
0201

92 HHRA

90501
CA-US LAX



Part # 169471-424 R172 EXP 03/19

SS1C1/F1E/104C

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#: 18L094

CASE NARRATIVE

Client : TESTAMERICA, INC.

Project: NW PIPE COMPANY GW MONITORING

SDG : 18L094

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

A total of four (4) water samples were received on 12/07/18 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, one (1) method blank was analyzed. VOF5L06B - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of LCS/LCD was analyzed. VOF5L06L/VOF5L06C were within LCS limits. Refer to LCS summary form 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.

LAB CHRONICLE
EDB BY GC/MS SIM

```

=====
Client       : TESTAMERICA, INC.
Project      : NW PIPE COMPANY GW MONITORING
SDG NO.     : 18L094
Instrument ID : F5
=====

```

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis Date/Time	Extraction Date/Time	Sample Data FN	Calibration Data FN	Notes
								WATER
MBLK1W	V0F5L06B	1	NA	12/11/1816:57	12/11/1816:57	RLY140	RHY772	Method Blank
LCS1W	V0F5L06L	1	NA	12/11/1816:07	12/11/1816:07	RLY138	RHY772	Lab Control Sample (LCS)
LCD1W	V0F5L06C	1	NA	12/11/1816:32	12/11/1816:32	RLY139	RHY772	LCS Duplicate
TB-120518	L094-01	1	NA	12/11/1819:30	12/11/1819:30	RLY145	RHY772	Field Sample
T4S1MW09-120518-0	L094-02	1	NA	12/11/1819:56	12/11/1819:56	RLY146	RHY772	Field Sample
T4S1MW3S-120518-0	L094-03	1	NA	12/11/1820:21	12/11/1820:21	RLY147	RHY772	Field Sample
MW02-120518-0	L094-04	1	NA	12/11/1820:47	12/11/1820:47	RLY148	RHY772	Field Sample

FN - Filename
% Moist - Percent Moisture

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SAMPLE RESULTS

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

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=====
Client      : TESTAMERICA, INC.           Date Collected: 12/05/18
Project     : NW PIPE COMPANY GW MONITORING Date Received: 12/07/18
Batch No.   : 18L094                     Date Extracted: 12/11/18 19:30
Sample ID   : TB-120518                  Date Analyzed: 12/11/18 19:30
Lab Samp ID : L094-01                     Dilution Factor: 1
Lab File ID : RLY145                       Matrix          : WATER
Ext Btch ID : VOF5L06                     % Moisture     : NA
Calib. Ref. : RHY772                       Instrument ID   : TOF5
=====

```

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	0.515	0.5000	103	70-130
4-BROMOFLUOROBENZENE	0.476	0.5000	95.2	70-130
TOLUENE-D8	0.465	0.5000	93.1	70-130

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

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=====
Client      : TESTAMERICA, INC.           Date Collected: 12/05/18
Project     : NW PIPE COMPANY GW MONITORING Date Received: 12/07/18
Batch No.   : 18L094                     Date Extracted: 12/11/18 19:56
Sample ID   : T4S1MW09-120518-0         Date Analyzed: 12/11/18 19:56
Lab Samp ID: L094-02                     Dilution Factor: 1
Lab File ID: RLY146                       Matrix          : WATER
Ext Btch ID: VOF5L06                       % Moisture     : NA
Calib. Ref.: RHY772                       Instrument ID   : TOF5
=====
  
```

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	0.531	0.5000	106	70-130
4-BROMOFLUOROBENZENE	0.468	0.5000	93.7	70-130
TOLUENE-D8	0.468	0.5000	93.6	70-130

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

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=====
Client      : TESTAMERICA, INC.           Date Collected: 12/05/18
Project     : NW PIPE COMPANY GW MONITORING Date Received: 12/07/18
Batch No.   : 18L094                     Date Extracted: 12/11/18 20:21
Sample ID   : T4S1MW3S-120518-0         Date Analyzed: 12/11/18 20:21
Lab Samp ID : L094-03                    Dilution Factor: 1
Lab File ID : RLY147                      Matrix          : WATER
Ext Btch ID: VOF5L06                     % Moisture     : NA
Calib. Ref.: RHY772                       Instrument ID   : TOF5
=====
  
```

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	0.550	0.5000	110	70-130
4-BROMOFLUOROBENZENE	0.471	0.5000	94.1	70-130
TOLUENE-D8	0.463	0.5000	92.7	70-130

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

```

=====
Client      : TESTAMERICA, INC.           Date Collected: 12/05/18
Project     : NW PIPE COMPANY GW MONITORING Date Received: 12/07/18
Batch No.   : 18L094                     Date Extracted: 12/11/18 20:47
Sample ID   : MW02-120518-0              Date Analyzed: 12/11/18 20:47
Lab Samp ID : L094-04                     Dilution Factor: 1
Lab File ID : RLY148                       Matrix          : WATER
Ext Btch ID : VOF5L06                       % Moisture     : NA
Calib. Ref. : RHY772                       Instrument ID   : TOF5
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	1.4	0.20	0.10
VINYL CHLORIDE	2.6	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	0.539	0.5000	108	70-130
4-BROMOFLUOROBENZENE	0.465	0.5000	92.9	70-130
TOLUENE-D8	0.467	0.5000	93.4	70-130

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QC SUMMARIES

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

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=====
Client      : TESTAMERICA, INC.           Date Collected: NA
Project     : NW PIPE COMPANY GW MONITORING Date Received: 12/11/18
Batch No.   : 18L094                     Date Extracted: 12/11/18 16:57
Sample ID   : MBLK1W                     Date Analyzed: 12/11/18 16:57
Lab Samp ID: VOF5L06B                    Dilution Factor: 1
Lab File ID: RLY140                       Matrix          : WATER
Ext Btch ID: VOF5L06                      % Moisture      : NA
Calib. Ref.: RHY772                       Instrument ID   : TOF5
=====
  
```

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	0.488	0.5000	97.6	70-130
4-BROMOFLUOROBENZENE	0.480	0.5000	96.1	70-130
TOLUENE-D8	0.473	0.5000	94.6	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TESTAMERICA, INC.
PROJECT: NW PIPE COMPANY GW MONITORING
BATCH NO.: 18L094
METHOD: SW5030B/8260B SIM

=====

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: VOF5L06B VOF5L06L VOF5L06C
LAB FILE ID: RLY140 RLY138 RLY139
DATE EXTRACTED: 12/11/1816:57 12/11/1816:07 12/11/1816:32 DATE COLLECTED: NA
DATE ANALYZED: 12/11/1816:57 12/11/1816:07 12/11/1816:32 DATE RECEIVED: 12/11/18
PREP. BATCH: VOF5L06 VOF5L06 VOF5L06
CALIB. REF: RHY772 RHY772 RHY772

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	0.540	108	0.500	0.522	104	3	70-130	20
Vinyl Chloride	ND	0.500	0.592	118	0.500	0.572	114	3	60-140	20
Tetrachloroethene	ND	0.500	0.503	101	0.500	0.486	97	3	70-130	20
TCE	ND	0.500	0.513	103	0.500	0.499	100	3	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	0.445	89	0.500	0.458	92	70-130
4-Bromofluorobenzene	0.500	0.482	96	0.500	0.480	96	70-130
Toluene-d8	0.500	0.481	96	0.500	0.481	96	70-130

TestAmerica Seattle

5755 8th Street East
Tacoma, WA 98424
Phone (253) 922-2310 Fax (253) 922-5047

Chain of Custody Record



580-82404 Chain of Custody

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client Information					Sampler: <u>S. Bartow</u> Lab PM: <u>Allen, Kristine D</u> Client Contact: <u>Bernice Kidd</u> Phone: <u>541 337 4415</u> E-Mail: <u>kristine.allen@testamericainc.com</u> Company: <u>CH2M Hill, Inc.</u>					CDC No: <u>580-31661-10349.1</u> Page: <u>Page 1 of</u> Job #: <u>82404</u>									
Address: <u>2020 SW 4th Ave Suite 300</u> City: <u>Portland</u> State, Zip: <u>OR, 97201</u> Phone: <u>530-229-3203(Tel)</u> Email: <u>bernice.kidd@jacobs.com</u> Project Name: <u>Northwest Pipe Company GW Monitoring</u> Site:					Due Date Requested: TAT Requested (days): PO #: <u>Purchase Order Requested</u> WO #:					Analysis Requested Field Filtered Sample (Yes or No) <input type="checkbox"/> Perform MS/MSD (Yes or No) <input type="checkbox"/> 8260C_LL - TCE, cis 1,2-DCE, PCE, Vinyl Chloride RSK_175 - Methane 300_0_28D - Chloride, Sulfate 300_48HR - Nitrate, NO3 as N 5310C - TOC RSK - 175 Carbon Dioxide					Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)				
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=soil, O=sewage/soil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)					Total Number of Containers	Special Instructions/Note:							
						Perform MS/MSD (Yes or No) <input type="checkbox"/> 8260C_LL - TCE, cis 1,2-DCE, PCE, Vinyl Chloride RSK_175 - Methane 300_0_28D - Chloride, Sulfate 300_48HR - Nitrate, NO3 as N 5310C - TOC RSK - 175 Carbon Dioxide													
TB-120518 T451MW09-120518-0 12/5/18 1100 G W N X X Y Y Y X T451MW035-120518-0 12/5/18 1225 G W N X X Y Y Y X MW02-120518-0 12/5/18 1500 G W N X X Y Y Y X																			
Therm. ID: <u>A2</u> Cor: <u>2.5</u> Unc: <u>2.2</u> Cooler Desc: <u>Ly Blue</u> Packing: <u>lwb</u> FedEx: <u>PO</u> Cust. Seal: <u>Yes No</u> UPS: Blue Ice: <u>Wet, Dry, None</u> Lab Cour: Other:																			
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months														
Deliverable Requested: I, II, III, IV, Other (specify)					Special Instructions/QC Requirements:														
Empty Kit Relinquished by:			Date:		Time:		Method of Shipment:												
Relinquished by: <u>[Signature]</u>			Date/Time: <u>12/5/18 1631</u>		Company: <u>Jacobs</u>		Received by: <u>Tom Bartow</u>		Date/Time: <u>12/6/18 0900</u>		Company: <u>TA-Sea</u>								
Relinquished by:			Date/Time:		Company:		Received by:		Date/Time:		Company:								
Relinquished by:			Date/Time:		Company:		Received by:		Date/Time:		Company:								
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No			Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:														

Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM Allen, Kristine D	Carrier Tracking No(s) 4688877888	COC No 580-61928.1					
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)							
Address: 17461 Denton Ave, Suite 100, City Inyine State, Zip CA, 92614-5817		Analysis Requested							
Phone 949-261-1022(Tel) 949-260-3297(Fax)		Preservation Codes: 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 X - EDTA L - EDA Z - other (specify)							
Email		Other:							
Project Name Northwest Pipe Company GW Monitoring		Total Number of Containers							
Site SSOW#		Special Instructions/Note:							
Due Date Requested: 12/18/2018									
TAT Requested (days)									
PO #									
WO #									
Project # 58013218									
SSOW#									
Sample Date		Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Over-sat, Other)	Preservation Code: (ST-Typical, As-At)	Field Filtered Sample (Yes or No)	RSK 175 Methane	RSK 175 CO2 Carbon Dioxide	Special Instructions/Note:
12/5/18	11:00 Pacific	Water		Water		X	X	X	
12/5/18	12:25 Pacific	Water		Water		X	X	X	
12/5/18	15:00 Pacific	Water		Water		X	X	X	

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/less/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

Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: *Tom Blanks* Date: 12/6/18 Company: TA-Sea
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks: 12/11/18 10:00
12/11/18 9:47

Custody Seal No.: _____
 Δ Yes Δ No



Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 580-82404-1

Login Number: 82404

List Source: TestAmerica Seattle

List Number: 1

Creator: Blankinship, Tom X

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.	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.	False	Refer to Job Narrative for details.
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 <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: 580-82404-1

Login Number: 82404

List Number: 2

Creator: Jatib, Savana

List Source: TestAmerica Irvine

List Creation: 12/07/18 12:18 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	