

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Seattle
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Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-82474-1

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:
12/27/2018 5:20:05 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

TestAmerica Job ID: 580-82474-1

Job ID: 580-82474-1

Laboratory: TestAmerica Seattle

Narrative

Job Narrative 580-82474-1

Comments

No additional comments.

Receipt

The samples were received on 12/8/2018 10:00 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.

GC/MS VOA

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: IDW-Drum2-MW5-6-120718 (580-82474-6). Elevated reporting limits (RLs) are provided.

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

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 analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

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

TestAmerica Job ID: 580-82474-1

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.
α	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: 580-82474-1

Client Sample ID: MW-03-120718

Lab Sample ID: 580-82474-1

Date Collected: 12/07/18 09:30

Matrix: Water

Date Received: 12/08/18 10:00

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (TCD)	2200		1000	500	ug/L			12/13/18 17:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.8		0.90	0.14	mg/L			12/08/18 13:24	1
NO3 as N	ND		0.20	0.020	mg/L			12/08/18 13:24	1
Sulfate	10	B	1.2	0.26	mg/L			12/08/18 13:24	1
Total Organic Carbon	1.5		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: 580-82474-1

Client Sample ID: MW-06-120718

Lab Sample ID: 580-82474-2

Date Collected: 12/07/18 10:50

Matrix: Water

Date Received: 12/08/18 10:00

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (TCD)	3500		1000	500	ug/L			12/13/18 17:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.2		0.90	0.14	mg/L			12/08/18 13:36	1
NO3 as N	ND		0.20	0.020	mg/L			12/08/18 13:36	1
Sulfate	8.7	B	1.2	0.26	mg/L			12/08/18 13:36	1
Total Organic Carbon	1.5		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: 580-82474-1

Client Sample ID: MW-05-120718

Lab Sample ID: 580-82474-3

Date Collected: 12/07/18 12:50

Matrix: Water

Date Received: 12/08/18 10:00

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (TCD)	1700		1000	500	ug/L			12/13/18 18:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5		0.90	0.14	mg/L			12/08/18 13:47	1
NO3 as N	ND		0.20	0.020	mg/L			12/08/18 13:47	1
Sulfate	7.1	B	1.2	0.26	mg/L			12/08/18 13:47	1
Total Organic Carbon	1.6		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: 580-82474-1

Client Sample ID: MW-100-120718-0

Lab Sample ID: 580-82474-4

Date Collected: 12/07/18 12:00

Matrix: Water

Date Received: 12/08/18 10:00

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (TCD)	4100		1000	500	ug/L			12/13/18 18:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.2		0.90	0.14	mg/L			12/08/18 13:59	1
NO3 as N	ND		0.20	0.020	mg/L			12/08/18 13:59	1
Sulfate	8.8	B	1.2	0.26	mg/L			12/08/18 13:59	1
Total Organic Carbon	1.5		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: 580-82474-1

Client Sample ID: IDW-Drum2-MW5-6-120718

Lab Sample ID: 580-82474-6

Date Collected: 12/07/18 13:40

Matrix: Water

Date Received: 12/08/18 10:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	31		1.0	0.22	ug/L			12/12/18 17:46	1
TCE	42		3.0	0.85	ug/L			12/12/18 17:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		80 - 122		12/12/18 17:46	1
Trifluorotoluene (Surr)	100		80 - 120		12/12/18 17:46	1
Dibromofluoromethane (Surr)	98		77 - 120		12/12/18 17:46	1
4-Bromofluorobenzene (Surr)	100		80 - 125		12/12/18 17:46	1
1,2-Dichloroethane-d4 (Surr)	100		80 - 126		12/12/18 17:46	1

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	800		120	28	ug/L			12/13/18 12:47	40
PCE	420		120	16	ug/L			12/13/18 12:47	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	111		80 - 122		12/13/18 12:47	40
Trifluorotoluene (Surr)	94		80 - 120		12/13/18 12:47	40
Dibromofluoromethane (Surr)	99		77 - 120		12/13/18 12:47	40
4-Bromofluorobenzene (Surr)	113		80 - 125		12/13/18 12:47	40
1,2-Dichloroethane-d4 (Surr)	112		80 - 126		12/13/18 12:47	40

QC Sample Results

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

TestAmerica Job ID: 580-82474-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 580-290900/5
Matrix: Water
Analysis Batch: 290900

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		1.0	0.22	ug/L			12/12/18 10:40	1
cis-1,2-Dichloroethene	ND		3.0	0.69	ug/L			12/12/18 10:40	1
TCE	ND		3.0	0.85	ug/L			12/12/18 10:40	1
PCE	ND		3.0	0.41	ug/L			12/12/18 10:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		80 - 122		12/12/18 10:40	1
Trifluorotoluene (Surr)	103		80 - 120		12/12/18 10:40	1
Dibromofluoromethane (Surr)	100		77 - 120		12/12/18 10:40	1
4-Bromofluorobenzene (Surr)	100		80 - 125		12/12/18 10:40	1
1,2-Dichloroethane-d4 (Surr)	100		80 - 126		12/12/18 10:40	1

Lab Sample ID: LCS 580-290900/6
Matrix: Water
Analysis Batch: 290900

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	10.0	9.57		ug/L		96	65 - 130
cis-1,2-Dichloroethene	10.0	10.7		ug/L		107	76 - 129
TCE	10.0	10.4		ug/L		104	70 - 131
PCE	10.0	9.54		ug/L		95	76 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	100		80 - 122
Trifluorotoluene (Surr)	98		80 - 120
Dibromofluoromethane (Surr)	103		77 - 120
4-Bromofluorobenzene (Surr)	101		80 - 125
1,2-Dichloroethane-d4 (Surr)	102		80 - 126

Lab Sample ID: LCSD 580-290900/7
Matrix: Water
Analysis Batch: 290900

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
Vinyl chloride	10.0	8.54		ug/L		85	65 - 130	11	35
cis-1,2-Dichloroethene	10.0	10.2		ug/L		102	76 - 129	5	15
TCE	10.0	9.97		ug/L		100	70 - 131	4	15
PCE	10.0	9.18		ug/L		92	76 - 120	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	101		80 - 122
Trifluorotoluene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	103		77 - 120
4-Bromofluorobenzene (Surr)	102		80 - 125
1,2-Dichloroethane-d4 (Surr)	102		80 - 126

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-82474-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 580-291031/5
Matrix: Water
Analysis Batch: 291031

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		3.0	0.69	ug/L			12/13/18 10:34	1
PCE	ND		3.0	0.41	ug/L			12/13/18 10:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	109		80 - 122		12/13/18 10:34	1
Trifluorotoluene (Surr)	97		80 - 120		12/13/18 10:34	1
Dibromofluoromethane (Surr)	102		77 - 120		12/13/18 10:34	1
4-Bromofluorobenzene (Surr)	114		80 - 125		12/13/18 10:34	1
1,2-Dichloroethane-d4 (Surr)	118		80 - 126		12/13/18 10:34	1

Lab Sample ID: LCS 580-291031/6
Matrix: Water
Analysis Batch: 291031

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,2-Dichloroethene	10.0	9.86		ug/L		99	76 - 129
PCE	10.0	10.8		ug/L		108	76 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	104		80 - 122
Trifluorotoluene (Surr)	93		80 - 120
Dibromofluoromethane (Surr)	105		77 - 120
4-Bromofluorobenzene (Surr)	110		80 - 125
1,2-Dichloroethane-d4 (Surr)	112		80 - 126

Lab Sample ID: LCSD 580-291031/7
Matrix: Water
Analysis Batch: 291031

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
cis-1,2-Dichloroethene	10.0	9.91		ug/L		99	76 - 129	1	15
PCE	10.0	10.1		ug/L		101	76 - 120	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	105		80 - 122
Trifluorotoluene (Surr)	96		80 - 120
Dibromofluoromethane (Surr)	97		77 - 120
4-Bromofluorobenzene (Surr)	111		80 - 125
1,2-Dichloroethane-d4 (Surr)	114		80 - 126

QC Sample Results

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

TestAmerica Job ID: 580-82474-1

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 580-290627/3
Matrix: Water
Analysis Batch: 290627

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			12/07/18 15:15	1

Lab Sample ID: LCS 580-290627/4
Matrix: Water
Analysis Batch: 290627

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	4.98		mg/L		100	90 - 110

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-82474-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 580-290627/5
Matrix: Water
Analysis Batch: 290627

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	4.97		mg/L		99	90 - 110	0	15

Lab Sample ID: MB 580-292159/3
Matrix: Water
Analysis Batch: 292159

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			12/07/18 15:15	1
Sulfate	0.334	J	1.2	0.26	mg/L			12/07/18 15:15	1

Lab Sample ID: LCS 580-292159/4
Matrix: Water
Analysis Batch: 292159

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	49.6		mg/L		99	90 - 110
Sulfate	50.0	49.6		mg/L		99	90 - 110

Lab Sample ID: LCSD 580-292159/5
Matrix: Water
Analysis Batch: 292159

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	49.7		mg/L		99	90 - 110	0	15
Sulfate	50.0	49.6		mg/L		99	90 - 110	0	15

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

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 Chronicle

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

TestAmerica Job ID: 580-82474-1

Client Sample ID: MW-03-120718

Lab Sample ID: 580-82474-1

Date Collected: 12/07/18 09:30

Matrix: Water

Date Received: 12/08/18 10:00

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 17:28	EI	TAL IRV
Total/NA	Analysis	300.0		1	290627	12/08/18 13:24	EMM	TAL SEA
Total/NA	Analysis	300.0		1	292159	12/08/18 13:24	EMM	TAL SEA
Total/NA	Analysis	SM 5310C		1	290953	12/11/18 15:32	HJM	TAL SEA

Client Sample ID: MW-06-120718

Lab Sample ID: 580-82474-2

Date Collected: 12/07/18 10:50

Matrix: Water

Date Received: 12/08/18 10:00

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 17:50	EI	TAL IRV
Total/NA	Analysis	300.0		1	290627	12/08/18 13:36	EMM	TAL SEA
Total/NA	Analysis	300.0		1	292159	12/08/18 13:36	EMM	TAL SEA
Total/NA	Analysis	SM 5310C		1	290953	12/11/18 15:32	HJM	TAL SEA

Client Sample ID: MW-05-120718

Lab Sample ID: 580-82474-3

Date Collected: 12/07/18 12:50

Matrix: Water

Date Received: 12/08/18 10:00

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 18:13	EI	TAL IRV
Total/NA	Analysis	300.0		1	290627	12/08/18 13:47	EMM	TAL SEA
Total/NA	Analysis	300.0		1	292159	12/08/18 13:47	EMM	TAL SEA
Total/NA	Analysis	SM 5310C		1	290953	12/11/18 15:32	HJM	TAL SEA

Client Sample ID: MW-100-120718-0

Lab Sample ID: 580-82474-4

Date Collected: 12/07/18 12:00

Matrix: Water

Date Received: 12/08/18 10:00

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 18:37	EI	TAL IRV
Total/NA	Analysis	300.0		1	290627	12/08/18 13:59	EMM	TAL SEA
Total/NA	Analysis	300.0		1	292159	12/08/18 13:59	EMM	TAL SEA
Total/NA	Analysis	SM 5310C		1	290953	12/11/18 15:32	HJM	TAL SEA

Client Sample ID: IDW-Drum2-MW5-6-120718

Lab Sample ID: 580-82474-6

Date Collected: 12/07/18 13:40

Matrix: Water

Date Received: 12/08/18 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	290900	12/12/18 17:46	TL1	TAL SEA

TestAmerica Seattle

Lab Chronicle

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

TestAmerica Job ID: 580-82474-1

Client Sample ID: IDW-Drum2-MW5-6-120718

Lab Sample ID: 580-82474-6

Date Collected: 12/07/18 13:40

Matrix: Water

Date Received: 12/08/18 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C	DL	40	291031	12/13/18 12:47	T1W	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.

TestAmerica Job ID: 580-82474-1

Project/Site: Northwest Pipe Company GW Monitoring

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.

TestAmerica Seattle

Sample Summary

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

TestAmerica Job ID: 580-82474-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-82474-1	MW-03-120718	Water	12/07/18 09:30	12/08/18 10:00
580-82474-2	MW-06-120718	Water	12/07/18 10:50	12/08/18 10:00
580-82474-3	MW-05-120718	Water	12/07/18 12:50	12/08/18 10:00
580-82474-4	MW-100-120718-0	Water	12/07/18 12:00	12/08/18 10:00
580-82474-6	IDW-Drum2-MW5-6-120718	Water	12/07/18 13:40	12/08/18 10:00
580-82474-7	Trip Blank	Water	12/07/18 00:01	12/08/18 10:00

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

Date: 12-20-2018
EMAX Batch No.: 18L129

Attn: Kris Allen

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

Subject: Laboratory Report
Project: NW PIPE COMPANY GW MONITORING

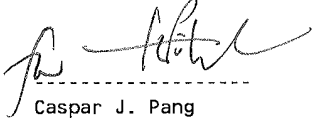
Enclosed is the Laboratory report for samples received on 12/11/18.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
MW-03-120718	L129-01	12/07/18	WATER	VOC SIM
MW-06-120718	L129-02	12/07/18	WATER	VOC SIM
MW-05-120718	L129-03	12/07/18	WATER	VOC SIM
MW-100-120718-0	L129-04	12/07/18	WATER	VOC SIM
TRIP BLANK	L129-05	12/07/18	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

18L129

Chain of Custody Record

Client Information (Sub Contract Lab)		Lab PM: Allen, Kristine D	Carrier Tracking No(s):	COC No: 580-61995.1					
Client Contact: Shipping/Receiving		Phone:	State of Origin: Oregon	Page: Page 1 of 1					
Company: EMAX Laboratories Inc		E-Mail: kristine.allen@testamericainc.com	Accreditations Required (See note):	Job #: 580-82474-1					
Address: 1835 W. 205th Street, City: Torrance State, Zip: CA, 90501 Phone: Email:		Due Date Requested: 12/19/2018 TAT Requested (days):	Analysis Requested						
Project Name: Northwest Pipe Company GW Monitoring Site:		Project #: 58013218 SSOW#:	Preservation Codes: A - HCL M - Hexane B - NaOH N - None O - AsNaO2 C - Zn Acetate P - Na2OAS D - Nitric Acid Q - Na2SO3 E - NaHSO4 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) Other:						
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (TCB, cis 1,2-DCE, PCE, Vinyl Chloride - low level)	Total Number of Containers	Special Instructions/Note:
MW-03-120718	12/7/18	09:30 Pacific	Water	Water	X	X	X	3	Please provide CH2 Lab Spec EDD if possible.
MW-06-120718	12/7/18	10:50 Pacific	Water	Water	X	X	X	3	Please provide CH2 Lab Spec EDD if possible.
MW-05-120718	12/7/18	12:50 Pacific	Water	Water	X	X	X	3	Please provide CH2 Lab Spec EDD if possible.
MW-100-120718-0	12/7/18	12:00 Pacific	Water	Water	X	X	X	3	Please provide CH2 Lab Spec EDD if possible.
Trip Blank	12/7/18	00:01 Pacific	Water	Water	X	X	X	3	Please provide CH2 Lab Spec EDD if possible.
TEMP: 2.4°C									
<p>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.</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 Special Instructions/QC Requirements:									
Primary Deliverable Rank: 2									
Empty Kit Relinquished by: _____ Date: _____									
Relinquished by: <i>Tom Blanks</i> Date: 12/10/18 Company: TA-Sea									
Relinquished by: _____ Date: _____ Company: _____									
Relinquished by: _____ Date: _____ Company: _____									
Custody Seals Intact: _____ Custody Seal No.: _____									
Cooler Temperature(s) °C and Other Remarks:									

SAMPLE RECEIPT FORM 1

<input checked="" type="checkbox"/> Fedex <input type="checkbox"/> UPS <input type="checkbox"/> GSO <input type="checkbox"/> Others	Airbill / Tracking Number 4008 877 9071	ECN 18L129
<input type="checkbox"/> EMAX Courier <input type="checkbox"/> Client Delivery		Recipient <u>ISabel</u>
		Date <u>12/11/18</u> Time <u>0915</u>

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 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: No initial/date on COC correction.

PACKAGING INSPECTION

Container	<input checked="" type="checkbox"/> Cooler	<input type="checkbox"/> Box	<input type="checkbox"/> Other
Condition	<input checked="" type="checkbox"/> Custody Seal	<input checked="" 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>24</u> °C	<input type="checkbox"/> Cooler 2 _____ °C	<input type="checkbox"/> Cooler 3 _____ °C
	<input type="checkbox"/> Cooler 6 _____ °C	<input type="checkbox"/> Cooler 7 _____ °C	<input type="checkbox"/> Cooler 8 _____ °C
Thermometer:	A - S/N 170324872	B - S/N 15055522	<u>C</u> - S/N 170324888

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

Note: _____

DISCREPANCIES

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action
<u>1-5</u>		<u>D6</u>	<u>Labels w/ HCl.</u>	<u>R1</u>
<u>213</u>	<u>3,518,9</u>	<u>D2</u>	<u>Label: CH4 (RSK175)</u>	<u>R1</u>
<u>3</u>	<u>13-15</u>	<u>D1</u>		<u>R1</u>

RS
12/11/18

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:

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><u>R1</u> Proceed as indicated in <u>COC</u> <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>
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REVIEWS: Sample Labeling Date 12/11/18

SRF Signature Date 12/11/18

PM RS Date 12/11/18

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

TestAmerica Temperature Controlled

THE LEADER IN ENVIRONMENTAL TESTING



**IF THIS SHIPMENT IS DELAYED IN TRANSIT,
STORE REFRIGERATED (2° TO 8° C / 36° TO 47° F)**

TAL-0090(1016)

ORIGIN ID:TCMA (253) 922-2310
SAMPLE RECEIVING
TA-SEATTLE
5755 8TH ST E

SHIP DATE: 10DEC18
ACTWGT: 19.25 LB
CAD: 989746/CAFE3211

FIFE, WA 98424
UNITED STATES US

BILL SENDER

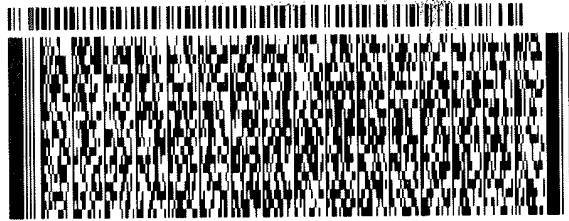
**TO SHIPPING/RECEIVING
EMAX LABORATORIES INC
1835 W. 205TH STREET**

ES:CL1/F:FF/104C

TORRANCE CA 90501

(253) 922-2310
PO: NO

REF: S580-31878



FedEx
Express



J181118066503.04

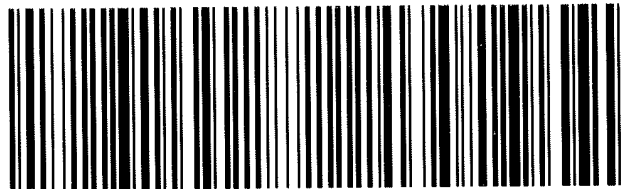
**TUE - 11 DEC 10:30A
PRIORITY OVERNIGHT**

TRK# 4668 8717 9071
0201

92 HHRA

**90501
CA-US LAX**

Part # 155471-004 FITZ EXP 03/19



REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than LOQ/RL but greater than LOD/MDL/DL.
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
MDL	Method Detection Limit
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
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#: 18L129

CASE NARRATIVE

Client : TESTAMERICA, INC.

Project: NW PIPE COMPANY GW MONITORING

SDG : 18L129

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

A total of five (5) water samples were received on 12/11/18 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. VOF5L11B - 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. VOF5L11L/VOF5L11C 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.

Samples L129-01, -02, -03 and -04 were analyzed at dilution due to high concentration.

LAB CHRONICLE
EDB BY GC/MS SIM

Client : TESTAMERICA, INC. SDG NO. : 18L129
 Project : NW PIPE COMPANY GW MONITORING Instrument ID : F5

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
									WATER
MBLK1W	VOF5L11B	1	NA	12/14/1818:34	12/14/1818:34	RLY238	RHY772	VOF5L11	Method Blank
LCS1W	VOF5L11L	1	NA	12/14/1817:44	12/14/1817:44	RLY236	RHY772	VOF5L11	Lab Control Sample (LCS)
LCD1W	VOF5L11C	1	NA	12/14/1818:09	12/14/1818:09	RLY237	RHY772	VOF5L11	LCS Duplicate
MW-06-120718DL	L129-02I	5000	NA	12/14/1819:24	12/14/1819:24	RLY240	RHY772	VOF5L11	Diluted Sample
MW-05-120718DL	L129-03I	5000	NA	12/14/1819:49	12/14/1819:49	RLY241	RHY772	VOF5L11	Diluted Sample
MW-100-120718-0DL	L129-04I	5000	NA	12/14/1820:14	12/14/1820:14	RLY242	RHY772	VOF5L11	Diluted Sample
TRIP BLANK	L129-05	1	NA	12/14/1820:39	12/14/1820:39	RLY243	RHY772	VOF5L11	Field Sample
MW-03-120718	L129-01	250	NA	12/14/1822:46	12/14/1822:46	RLY248	RHY772	VOF5L11	Field Sample
MW-06-120718	L129-02	250	NA	12/14/1823:11	12/14/1823:11	RLY249	RHY772	VOF5L11	Field Sample
MW-05-120718	L129-03	250	NA	12/14/1823:37	12/14/1823:37	RLY250	RHY772	VOF5L11	Field Sample
MW-100-120718-0	L129-04	250	NA	12/15/1800:02	12/15/1800:02	RLY251	RHY772	VOF5L11	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: 12/07/18
Project     : NW PIPE COMPANY GW MONITORING Date Received: 12/11/18
Batch No.   : 18L129                     Date Extracted: 12/14/18 22:46
Sample ID   : MW-03-120718               Date Analyzed: 12/14/18 22:46
Lab Samp ID : L129-01                    Dilution Factor: 250
Lab File ID : RLY248                     Matrix          : WATER
Ext Btch ID : VOF5L11                    % Moisture     : NA
Calib. Ref. : RHY772                     Instrument ID   : TOF5
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	850	50	25
VINYL CHLORIDE	46	25	5.0
TETRACHLOROETHENE	490	50	25
TCE	160	50	25

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	137	125.0	109	70-130
4-BROMOFLUOROBENZENE	119	125.0	95.4	70-130
TOLUENE-D8	115	125.0	91.6	70-130

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

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=====
Client      : TESTAMERICA, INC.           Date Collected: 12/07/18
Project     : NW PIPE COMPANY GW MONITORING Date Received: 12/11/18
Batch No.   : 18L129                     Date Extracted: 12/14/18 23:11 # 12/14/18 19:24
Sample ID   : MW-06-120718               Date Analyzed: 12/14/18 23:11 # 12/14/18 19:24
Lab Samp ID: L129-02 #L129-02I           Dilution Factor: 250 # 5000
Lab File ID: RLY249 #RLY240              Matrix          : WATER
Ext Btch ID: VOF5L11 #VOF5L11            % Moisture      : NA
Calib. Ref.: RHY772 #RHY772              Instrument ID    : TOF5
=====

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PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# CIS-1,2-DICHLOROETHYLENE	1300	1000	500
VINYL CHLORIDE	130	25	5.0
TETRACHLOROETHENE	430	50	25
TCE	110	50	25

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	136	125.0	109	70-130
4-BROMOFLUOROBENZENE	116	125.0	92.7	70-130
TOLUENE-D8	114	125.0	91.5	70-130
# 1,2-DICHLOROETHANE-D4	2520	2500	101	70-130
# 4-BROMOFLUOROBENZENE	2400	2500	96.1	70-130
# TOLUENE-D8	2340	2500	93.5	70-130

Members of the Associated File

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

```

=====
Client      : TESTAMERICA, INC.           Date Collected: 12/07/18
Project     : NW PIPE COMPANY GW MONITORING Date Received: 12/11/18
Batch No.   : 18L129                     Date Extracted: 12/14/18 23:11
Sample ID   : MW-06-120718              Date Analyzed: 12/14/18 23:11
Lab Samp ID : L129-02                    Dilution Factor: 250
Lab File ID : RLY249                     Matrix          : WATER
Ext Btch ID : VOF5L11                    % Moisture     : NA
Calib. Ref. : RHY772                     Instrument ID   : TOF5
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	1400E	50	25
VINYL CHLORIDE	130	25	5.0
TETRACHLOROETHENE	430	50	25
TCE	110	50	25

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	136	125.0	109	70-130
4-BROMOFLUOROBENZENE	116	125.0	92.7	70-130
TOLUENE-D8	114	125.0	91.5	70-130

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

```

=====
Client      : TESTAMERICA, INC.           Date Collected: 12/07/18
Project     : NW PIPE COMPANY GW MONITORING Date Received: 12/11/18
Batch No.   : 18L129                     Date Extracted: 12/14/18 19:24
Sample ID   : MW-06-120718DL             Date Analyzed: 12/14/18 19:24
Lab Samp ID : L129-02I                   Dilution Factor: 5000
Lab File ID : RLY240                     Matrix          : WATER
Ext Btch ID : VOF5L11                   % Moisture     : NA
Calib. Ref. : RHY772                    Instrument ID   : TOF5
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	1300	1000	500
VINYL CHLORIDE	120J	500	100
TETRACHLOROETHENE	ND	1000	500
TCE	ND	1000	500

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	2520	2500	101	70-130
4-BROMOFLUOROBENZENE	2400	2500	96.1	70-130
TOLUENE-D8	2340	2500	93.5	70-130

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

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=====
Client       : TESTAMERICA, INC.           Date Collected: 12/07/18
Project      : NW PIPE COMPANY GW MONITORING Date Received: 12/11/18
Batch No.    : 18L129                     Date Extracted: 12/14/18 23:37 # 12/14/18 19:49
Sample ID    : MW-05-120718              Date Analyzed: 12/14/18 23:37 # 12/14/18 19:49
Lab Samp ID  : L129-03 #L129-03I         Dilution Factor: 250 # 5000
Lab File ID  : RLY250 #RLY241            Matrix          : WATER
Ext Btch ID  : VOF5L11 #VOF5L11         % Moisture      : NA
Calib. Ref.  : RHY772 #RHY772           Instrument ID   : TOF5
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# CIS-1,2-DICHLOROETHYLENE	1600	1000	500
VINYL CHLORIDE	77	25	5.0
TETRACHLOROETHENE	1200	50	25
TCE	85	50	25

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	137	125.0	110	70-130
4-BROMOFLUOROBENZENE	119	125.0	95.0	70-130
TOLUENE-D8	112	125.0	89.7	70-130
# 1,2-DICHLOROETHANE-D4	2570	2500	103	70-130
# 4-BROMOFLUOROBENZENE	2400	2500	96.1	70-130
# TOLUENE-D8	2320	2500	92.8	70-130

Members of the Associated File

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

```

=====
Client      : TESTAMERICA, INC.           Date Collected: 12/07/18
Project     : NW PIPE COMPANY GW MONITORING Date Received: 12/11/18
Batch No.   : 18L129                     Date Extracted: 12/14/18 23:37
Sample ID   : MW-05-120718               Date Analyzed: 12/14/18 23:37
Lab Samp ID : L129-03                     Dilution Factor: 250
Lab File ID : RLY250                       Matrix          : WATER
Ext Btch ID : VOF5L11                     % Moisture      : NA
Calib. Ref. : RHY772                       Instrument ID   : TOF5
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	1800E	50	25
VINYL CHLORIDE	77	25	5.0
TETRACHLOROETHENE	1200	50	25
TCE	85	50	25

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	137	125.0	110	70-130
4-BROMOFLUOROBENZENE	119	125.0	95.0	70-130
TOLUENE-D8	112	125.0	89.7	70-130

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

```

=====
Client      : TESTAMERICA, INC.           Date Collected: 12/07/18
Project     : NW PIPE COMPANY GW MONITORING Date Received: 12/11/18
Batch No.   : 18L129                     Date Extracted: 12/14/18 19:49
Sample ID   : MW-05-120718DL             Date Analyzed: 12/14/18 19:49
Lab Samp ID : L129-03I                    Dilution Factor: 5000
Lab File ID : RLY241                       Matrix       : WATER
Ext Btch ID : VOF5L11                      % Moisture   : NA
Calib. Ref. : RHY772                       Instrument ID : TOF5
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	1600	1000	500
VINYL CHLORIDE	ND	500	100
TETRACHLOROETHENE	880J	1000	500
TCE	ND	1000	500

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	2570	2500	103	70-130
4-BROMOFLUOROBENZENE	2400	2500	96.1	70-130
TOLUENE-D8	2320	2500	92.8	70-130



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

```

=====
Client       : TESTAMERICA, INC.           Date Collected: 12/07/18
Project      : NW PIPE COMPANY GW MONITORING Date Received: 12/11/18
Batch No.    : 18L129                     Date Extracted: 12/15/18 00:02 # 12/14/18 20:14
Sample ID    : MW-100-120718-0           Date Analyzed: 12/15/18 00:02 # 12/14/18 20:14
Lab Samp ID  : L129-04 #L129-04I         Dilution Factor: 250 # 5000
Lab File ID  : RLY251 #RLY242           Matrix          : WATER
Ext Btch ID  : VOF5L11 #VOF5L11         % Moisture      : NA
Calib. Ref.  : RHY772 #RHY772          Instrument ID   : TOF5
=====

```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# CIS-1,2-DICHLOROETHYLENE	1400	1000	500
VINYL CHLORIDE	130	25	5.0
TETRACHLOROETHENE	400	50	25
TCE	110	50	25

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	140	125.0	112	70-130
4-BROMOFLUOROBENZENE	118	125.0	94.5	70-130
TOLUENE-D8	113	125.0	90.7	70-130

# 1,2-DICHLOROETHANE-D4	2610	2500	104	70-130
# 4-BROMOFLUOROBENZENE	2380	2500	95.3	70-130
# TOLUENE-D8	2340	2500	93.7	70-130

Members of the Associated File

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

```

=====
Client      : TESTAMERICA, INC.           Date Collected: 12/07/18
Project     : NW PIPE COMPANY GW MONITORING Date Received: 12/11/18
Batch No.   : 18L129                     Date Extracted: 12/15/18 00:02
Sample ID   : MW-100-120718-0           Date Analyzed: 12/15/18 00:02
Lab Samp ID : L129-04                   Dilution Factor: 250
Lab File ID : RLY251                    Matrix          : WATER
Ext Btch ID : VOF5L11                   % Moisture     : NA
Calib. Ref. : RHY772                     Instrument ID   : TOF5
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	1500E	50	25
VINYL CHLORIDE	130	25	5.0
TETRACHLOROETHENE	400	50	25
TCE	110	50	25

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	140	125.0	112	70-130
4-BROMOFLUOROBENZENE	118	125.0	94.5	70-130
TOLUENE-D8	113	125.0	90.7	70-130

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

```

=====
Client      : TESTAMERICA, INC.           Date Collected: 12/07/18
Project     : NW PIPE COMPANY GW MONITORING Date Received: 12/11/18
Batch No.   : 18L129                     Date Extracted: 12/14/18 20:14
Sample ID   : MW-100-120718-ODL          Date Analyzed: 12/14/18 20:14
Lab Samp ID : L129-04I                    Dilution Factor: 5000
Lab File ID : RLY242                       Matrix          : WATER
Ext Btch ID : VOF5L11                      % Moisture     : NA
Calib. Ref. : RHY772                       Instrument ID   : TOF5
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
CIS-1,2-DICHLOROETHYLENE	1400	1000	500
VINYL CHLORIDE	130J	500	100
TETRACHLOROETHENE	ND	1000	500
TCE	ND	1000	500

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	2610	2500	104	70-130
4-BROMOFLUOROBENZENE	2380	2500	95.3	70-130
TOLUENE-D8	2340	2500	93.7	70-130

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

```

=====
Client      : TESTAMERICA, INC.           Date Collected: 12/07/18
Project     : NW PIPE COMPANY GW MONITORING Date Received: 12/11/18
Batch No.   : 18L129                     Date Extracted: 12/14/18 20:39
Sample ID   : TRIP BLANK                 Date Analyzed: 12/14/18 20:39
Lab Samp ID: L129-05                     Dilution Factor: 1
Lab File ID: RLY243                       Matrix          : WATER
Ext Btch ID: VOF5L11                     % 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	0.522	0.5000	104	70-130
4-BROMOFLUOROBENZENE	0.475	0.5000	95.0	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

```

=====
Client      : TESTAMERICA, INC.           Date Collected: NA
Project     : NW PIPE COMPANY GW MONITORING Date Received: 12/14/18
Batch No.   : 18L129                     Date Extracted: 12/14/18 18:34
Sample ID   : MBLK1W                     Date Analyzed: 12/14/18 18:34
Lab Samp ID: VOF5L11B                    Dilution Factor: 1
Lab File ID: RLY238                       Matrix       : WATER
Ext Btch ID: VOF5L11                      % 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	0.506	0.5000	101	70-130
4-BROMOFLUOROBENZENE	0.479	0.5000	95.7	70-130
TOLUENE-D8	0.472	0.5000	94.4	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TESTAMERICA, INC.
PROJECT: NW PIPE COMPANY GW MONITORING
BATCH NO.: 18L129
METHOD: SW5030B/8260B SIM

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: VOF5L11B VOF5L11L VOF5L11C
LAB FILE ID: RLY238 RLY236 RLY237
DATE EXTRACTED: 12/14/1818:34 12/14/1817:44 12/14/1818:09 DATE COLLECTED: NA
DATE ANALYZED: 12/14/1818:34 12/14/1817:44 12/14/1818:09 DATE RECEIVED: 12/14/18
PREP. BATCH: VOF5L11 VOF5L11 VOF5L11
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	0.499	100	0.500	0.504	101	1	70-130	20
Vinyl Chloride	ND	0.500	0.555	111	0.500	0.557	111	0	60-140	20
Tetrachloroethene	ND	0.500	0.453	91	0.500	0.452	90	0	70-130	20
TCE	ND	0.500	0.469	94	0.500	0.471	94	0	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	0.465	93	0.500	0.464	93	70-130
4-Bromofluorobenzene	0.500	0.484	97	0.500	0.481	96	70-130
Toluene-d8	0.500	0.474	95	0.500	0.479	96	70-130

TestAmerica Seattle

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

Chain of Custody Record

Loc: 580
82474

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information		Sampler: <i>B. O'STAPKA W&Z</i>	Lab PM: Allen, Kristine D	Carrier Tracking No(s):	COC No: 580-31661-10349.1																																																																																
Client Contact: <i>Bernice Kidd - GASTMAN BEE</i>		Phone: <i>503-736-4244</i>	E-Mail: kristine.allen@testamericainc.com		Page: Page 1 of																																																																																
Company: <i>GH2M Hill, Inc. JACOBI</i>		Analysis Requested			Job #:																																																																																
Address: 2020 SW 4th Ave Suite 300					<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">8260C_LL - TCE, cis 1,2-DCE, PCE, Vinyl Chloride</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">RSK_175 - Methane</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">300_0_28D - Chloride, Sulfate</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">300_48HR - Nitrate, NO3 as N</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">5310C - TOC</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">PERMETHYL CARBON DIOXIDE</td> </tr> </table>			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	PERMETHYL CARBON DIOXIDE	Preservation Codes:																																																																							
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City: Portland		Due Date Requested: <i>STD</i>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">Total Number of Containers:</td> <td></td> </tr> </table>			Total Number of Containers:		A - HCL	M - Hexane																																																																												
Total Number of Containers:																																																																																					
State, Zip: OR, 97201		TAT Requested (days): <i>STD</i>	B - NaOH	N - None																																																																																	
Phone: <i>530-229-3203 (Tel) 503-736-4349</i>		PO #: Purchase Order Requested	C - Zn Acetate	O - AsNaO2																																																																																	
Email: <i>bernice.kidd@jacobs.com - g.mastman.gm@jacobs.com</i>		WO #:	D - Nitric Acid	P - Na2O4S																																																																																	
Project Name: Northwest Pipe Company GW Monitoring		Project #: 58013218	E - NaHSO4	Q - Na2SO3																																																																																	
Site:		SSOW#:	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)																																																																																	
			Other:																																																																																		
			Special Instructions/Note:																																																																																		
			<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Sample Identification</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=grab)</th> <th>Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)</th> <th>Preservation Code</th> <th>A</th> <th>N</th> <th>S</th> <th>Other</th> </tr> <tr> <td>MW-03-120718</td> <td>12/7/18</td> <td>930</td> <td></td> <td></td> <td></td> <td>N</td> <td>N</td> <td>X</td> <td></td> </tr> <tr> <td>MW-06-120718</td> <td></td> <td>1030</td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>MW-05-120718</td> <td></td> <td>1230</td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>MW-100-120718-0</td> <td></td> <td>1200</td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>EDW-02UM1-MW1-4-120718</td> <td></td> <td>1330</td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>EDW-02UM2-MW5-6-120718</td> <td></td> <td>1340</td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>TRIP BLANK</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td></td> </tr> </table>			Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Preservation Code	A	N	S	Other	MW-03-120718	12/7/18	930				N	N	X		MW-06-120718		1030				X	X	X		MW-05-120718		1230				X	X	X		MW-100-120718-0		1200				X	X	X		EDW-02UM1-MW1-4-120718		1330				X	X	X		EDW-02UM2-MW5-6-120718		1340				X	X	X		TRIP BLANK						X	X	X	
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Preservation Code	A	N	S	Other																																																																												
MW-03-120718	12/7/18	930				N	N	X																																																																													
MW-06-120718		1030				X	X	X																																																																													
MW-05-120718		1230				X	X	X																																																																													
MW-100-120718-0		1200				X	X	X																																																																													
EDW-02UM1-MW1-4-120718		1330				X	X	X																																																																													
EDW-02UM2-MW5-6-120718		1340				X	X	X																																																																													
TRIP BLANK						X	X	X																																																																													
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			TA TO RUN 8260C FOR PCE, PCE, VC, cis 1,2 DCE																																																																																		
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			SUB TO EMAX FOR VOCs																																																																																		

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

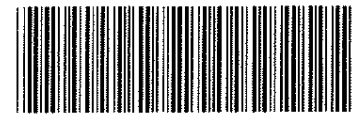
Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: *SUB TO EMAX FOR VOCs - DON'T RUN CO2*

Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____

Relinquished by: <i>B. O'STAPKA W&Z</i>	Date/Time: <i>12/8/18 1500</i>	Company: <i>JACOBI</i>	Received by: <i>B. Allen</i>	Date/Time: <i>12-8-18 1000</i>	Company: <i>SEATA</i>
Relinquished by: _____	Date/Time: _____	Company: _____	Received by: _____	Date/Time: _____	Company: _____

Therm ID: *A2* Cor: *0.6* Unc: *0.3*
Cooler Desc: *13 Blue* FedEx: *P.O.*
Packing: *Bubble* UPS: _____
Cust. Seal: *Yes X* Lab Cour: _____
Blue Ice, *Get Dry, None* Other: _____



Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 580-82474-1

Login Number: 82474

List Number: 1

Creator: Gall, Brandon A

List Source: TestAmerica Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is </= 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.	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: 580-82474-1

Login Number: 82474
List Number: 2
Creator: Avila, Stephanie 1

List Source: TestAmerica Irvine
List Creation: 12/11/18 01:30 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.	N/A	Not present
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?	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.	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	

