

FINAL-DRAFT

**Site Characterization Report Blanco
Plant – Former North Flare Pit
Bloomfield, New Mexico**

Part 2 - Remainder of Appendix E

NMOCD Incident No. NAUTOFCS000155
NMOCD Discharge Permit No. GW-049
NMOCD Facility ID No. fCS000000000005



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May 2021

Appendix E

Soil Laboratory Analytical Reports

Part 2



Environment Testing America

ANALYTICAL REPORT

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

Laboratory Job ID: 600-154065-1

Client Project/Site: Kinder Morgan Bloomfield, NM NFP
Revision: 1

For:

CH2M Hill Constructors, Inc.
14701 St. Mary's Lane
Suite 300
Houston, Texas 77079-2923

Attn: Mr. John Ynfante

Authorized for release by:

12/10/2020 10:18:11 AM

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LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

Laboratory Job ID: 600-154065-1

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Case Narrative

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

Job ID: 600-154065-1

Job ID: 600-154065-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-154065-1

Comments

This report was revised to a Level 2 deliverable per client's request.

Receipt

The samples were received on 9/19/2017 10:19 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.7° C.

GC/MS VOA

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

General Chemistry

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

Method Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154065-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
2540B	Percent Moisture	SM20	TAL HOU

Protocol References:

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154065-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-154065-1	MW46-NFP-12-13-09182017	Solid	09/18/17 09:00	09/19/17 10:19
600-154065-2	MW46-NFP-25-26-09182017	Solid	09/18/17 09:18	09/19/17 10:19
600-154065-3	MW46-NFP-35-36-09182017	Solid	09/18/17 09:35	09/19/17 10:19
600-154065-4	MW46-NFP-41-42-09182017	Solid	09/18/17 10:05	09/19/17 10:19
600-154065-5	MW46-NFP-49-50-09182017	Solid	09/18/17 12:00	09/19/17 10:19
600-154065-6	TB-09182017	Water	09/18/17 08:35	09/19/17 10:19

TestAmerica Houston

Client Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154065-1

Client Sample ID: MW46-NFP-12-13-09182017

Lab Sample ID: 600-154065-1

Date Collected: 09/18/17 09:00

Matrix: Solid

Date Received: 09/19/17 10:19

Percent Solids: 95.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000685	U	0.00544	0.000685	mg/Kg	☼	09/19/17 14:14	09/23/17 10:20	1
Ethylbenzene	0.00111	U	0.00544	0.00111	mg/Kg	☼	09/19/17 14:14	09/23/17 10:20	1
Toluene	0.00150	U	0.00544	0.00150	mg/Kg	☼	09/19/17 14:14	09/23/17 10:20	1
Xylenes, Total	0.00123	U	0.00544	0.00123	mg/Kg	☼	09/19/17 14:14	09/23/17 10:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		61 - 130	09/19/17 14:14	09/23/17 10:20	1
Dibromofluoromethane	89		68 - 140	09/19/17 14:14	09/23/17 10:20	1
Toluene-d8 (Surr)	85		50 - 130	09/19/17 14:14	09/23/17 10:20	1
4-Bromofluorobenzene	94		57 - 140	09/19/17 14:14	09/23/17 10:20	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.5		1.0	1.0	%			09/20/17 15:35	1
Percent Solids	95.5		1.0	1.0	%			09/20/17 15:35	1

Client Sample ID: MW46-NFP-25-26-09182017

Lab Sample ID: 600-154065-2

Date Collected: 09/18/17 09:18

Matrix: Solid

Date Received: 09/19/17 10:19

Percent Solids: 91.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000645	U	0.00512	0.000645	mg/Kg	☼	09/19/17 14:14	09/23/17 10:44	1
Ethylbenzene	0.00104	U	0.00512	0.00104	mg/Kg	☼	09/19/17 14:14	09/23/17 10:44	1
Toluene	0.00141	U	0.00512	0.00141	mg/Kg	☼	09/19/17 14:14	09/23/17 10:44	1
Xylenes, Total	0.00116	U	0.00512	0.00116	mg/Kg	☼	09/19/17 14:14	09/23/17 10:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		61 - 130	09/19/17 14:14	09/23/17 10:44	1
Dibromofluoromethane	88		68 - 140	09/19/17 14:14	09/23/17 10:44	1
Toluene-d8 (Surr)	83		50 - 130	09/19/17 14:14	09/23/17 10:44	1
4-Bromofluorobenzene	95		57 - 140	09/19/17 14:14	09/23/17 10:44	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.2		1.0	1.0	%			09/20/17 15:58	1
Percent Solids	91.8		1.0	1.0	%			09/20/17 15:58	1

Client Sample ID: MW46-NFP-35-36-09182017

Lab Sample ID: 600-154065-3

Date Collected: 09/18/17 09:35

Matrix: Solid

Date Received: 09/19/17 10:19

Percent Solids: 87.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000657	U	0.00521	0.000657	mg/Kg	☼	09/19/17 14:14	09/23/17 11:09	1
Ethylbenzene	0.00106	U	0.00521	0.00106	mg/Kg	☼	09/19/17 14:14	09/23/17 11:09	1
Toluene	0.00144	U	0.00521	0.00144	mg/Kg	☼	09/19/17 14:14	09/23/17 11:09	1
Xylenes, Total	0.00118	U	0.00521	0.00118	mg/Kg	☼	09/19/17 14:14	09/23/17 11:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		61 - 130	09/19/17 14:14	09/23/17 11:09	1

TestAmerica Houston

Client Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154065-1

Client Sample ID: MW46-NFP-35-36-09182017

Lab Sample ID: 600-154065-3

Date Collected: 09/18/17 09:35

Matrix: Solid

Date Received: 09/19/17 10:19

Percent Solids: 87.4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	89		68 - 140	09/19/17 14:14	09/23/17 11:09	1
Toluene-d8 (Surr)	82		50 - 130	09/19/17 14:14	09/23/17 11:09	1
4-Bromofluorobenzene	94		57 - 140	09/19/17 14:14	09/23/17 11:09	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12.6		1.0	1.0	%			09/20/17 15:35	1
Percent Solids	87.4		1.0	1.0	%			09/20/17 15:35	1

Client Sample ID: MW46-NFP-41-42-09182017

Lab Sample ID: 600-154065-4

Date Collected: 09/18/17 10:05

Matrix: Solid

Date Received: 09/19/17 10:19

Percent Solids: 90.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000704	U	0.00559	0.000704	mg/Kg	☼	09/19/17 14:14	09/23/17 11:33	1
Ethylbenzene	0.00114	U	0.00559	0.00114	mg/Kg	☼	09/19/17 14:14	09/23/17 11:33	1
Toluene	0.00154	U	0.00559	0.00154	mg/Kg	☼	09/19/17 14:14	09/23/17 11:33	1
Xylenes, Total	0.00126	U	0.00559	0.00126	mg/Kg	☼	09/19/17 14:14	09/23/17 11:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		61 - 130	09/19/17 14:14	09/23/17 11:33	1
Dibromofluoromethane	89		68 - 140	09/19/17 14:14	09/23/17 11:33	1
Toluene-d8 (Surr)	82		50 - 130	09/19/17 14:14	09/23/17 11:33	1
4-Bromofluorobenzene	95		57 - 140	09/19/17 14:14	09/23/17 11:33	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.8		1.0	1.0	%			09/20/17 15:35	1
Percent Solids	90.2		1.0	1.0	%			09/20/17 15:35	1

Client Sample ID: MW46-NFP-49-50-09182017

Lab Sample ID: 600-154065-5

Date Collected: 09/18/17 12:00

Matrix: Solid

Date Received: 09/19/17 10:19

Percent Solids: 84.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000549	U	0.00436	0.000549	mg/Kg	☼	09/19/17 14:14	09/23/17 11:58	1
Ethylbenzene	0.000889	U	0.00436	0.000889	mg/Kg	☼	09/19/17 14:14	09/23/17 11:58	1
Toluene	0.00120	U	0.00436	0.00120	mg/Kg	☼	09/19/17 14:14	09/23/17 11:58	1
Xylenes, Total	0.000985	U	0.00436	0.000985	mg/Kg	☼	09/19/17 14:14	09/23/17 11:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		61 - 130	09/19/17 14:14	09/23/17 11:58	1
Dibromofluoromethane	88		68 - 140	09/19/17 14:14	09/23/17 11:58	1
Toluene-d8 (Surr)	83		50 - 130	09/19/17 14:14	09/23/17 11:58	1
4-Bromofluorobenzene	96		57 - 140	09/19/17 14:14	09/23/17 11:58	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.7		1.0	1.0	%			09/20/17 15:35	1

TestAmerica Houston

Client Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154065-1

Client Sample ID: MW46-NFP-49-50-09182017

Lab Sample ID: 600-154065-5

Date Collected: 09/18/17 12:00

Matrix: Solid

Date Received: 09/19/17 10:19

Percent Solids: 84.3

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	84.3		1.0	1.0	%			09/20/17 15:35	1

Client Sample ID: TB-09182017

Lab Sample ID: 600-154065-6

Date Collected: 09/18/17 08:35

Matrix: Water

Date Received: 09/19/17 10:19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			09/19/17 17:00	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			09/19/17 17:00	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			09/19/17 17:00	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			09/19/17 17:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		50 - 134		09/19/17 17:00	1
Dibromofluoromethane	101		62 - 130		09/19/17 17:00	1
Toluene-d8 (Surr)	95		70 - 130		09/19/17 17:00	1
4-Bromofluorobenzene	101		67 - 139		09/19/17 17:00	1

TestAmerica Houston

Definitions/Glossary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154065-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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)

Surrogate Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154065-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-154065-1	MW46-NFP-12-13-09182017	95	89	85	94
600-154065-2	MW46-NFP-25-26-09182017	94	88	83	95
600-154065-3	MW46-NFP-35-36-09182017	99	89	82	94
600-154065-4	MW46-NFP-41-42-09182017	90	89	82	95
600-154065-5	MW46-NFP-49-50-09182017	97	88	83	96
LCS 600-221965/3	Lab Control Sample	93	93	84	97
LCSD 600-221965/4	Lab Control Sample Dup	89	92	85	98
MB 600-221965/6	Method Blank	102	91	84	94

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (50-134)	DBFM (62-130)	TOL (70-130)	BFB (67-139)
600-154065-6	TB-09182017	111	101	95	101
LCS 600-221630/4	Lab Control Sample	97	105	97	112
LCSD 600-221630/5	Lab Control Sample Dup	113	106	93	108
MB 600-221630/7	Method Blank	107	98	98	104

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene

TestAmerica Houston

QC Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154065-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-221630/7

Matrix: Water

Analysis Batch: 221630

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			09/19/17 12:34	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			09/19/17 12:34	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			09/19/17 12:34	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			09/19/17 12:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		50 - 134		09/19/17 12:34	1
Dibromofluoromethane	98		62 - 130		09/19/17 12:34	1
Toluene-d8 (Surr)	98		70 - 130		09/19/17 12:34	1
4-Bromofluorobenzene	104		67 - 139		09/19/17 12:34	1

Lab Sample ID: LCS 600-221630/4

Matrix: Water

Analysis Batch: 221630

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.009624		mg/L		96	70 - 130
Ethylbenzene	0.0100	0.009984		mg/L		100	70 - 130
Toluene	0.0100	0.009356		mg/L		94	70 - 130
Xylenes, Total	0.0200	0.01987		mg/L		99	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		50 - 134
Dibromofluoromethane	105		62 - 130
Toluene-d8 (Surr)	97		70 - 130
4-Bromofluorobenzene	112		67 - 139

Lab Sample ID: LCSD 600-221630/5

Matrix: Water

Analysis Batch: 221630

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
Benzene	0.0100	0.009512		mg/L		95	70 - 130	1	20
Ethylbenzene	0.0100	0.009554		mg/L		96	70 - 130	4	20
Toluene	0.0100	0.008996		mg/L		90	70 - 130	4	20
Xylenes, Total	0.0200	0.01922		mg/L		96	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	113		50 - 134
Dibromofluoromethane	106		62 - 130
Toluene-d8 (Surr)	93		70 - 130
4-Bromofluorobenzene	108		67 - 139

TestAmerica Houston

QC Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154065-1

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

Lab Sample ID: MB 600-221965/6

Matrix: Solid

Analysis Batch: 221965

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			09/23/17 09:55	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			09/23/17 09:55	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			09/23/17 09:55	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			09/23/17 09:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		61 - 130		09/23/17 09:55	1
Dibromofluoromethane	91		68 - 140		09/23/17 09:55	1
Toluene-d8 (Surr)	84		50 - 130		09/23/17 09:55	1
4-Bromofluorobenzene	94		57 - 140		09/23/17 09:55	1

Lab Sample ID: LCS 600-221965/3

Matrix: Solid

Analysis Batch: 221965

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.04466		mg/Kg		89	70 - 131
Ethylbenzene	0.0500	0.04301		mg/Kg		86	66 - 130
Toluene	0.0500	0.04190		mg/Kg		84	67 - 130
Xylenes, Total	0.100	0.08479		mg/Kg		85	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		61 - 130
Dibromofluoromethane	93		68 - 140
Toluene-d8 (Surr)	84		50 - 130
4-Bromofluorobenzene	97		57 - 140

Lab Sample ID: LCSD 600-221965/4

Matrix: Solid

Analysis Batch: 221965

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
Benzene	0.0500	0.04196		mg/Kg		84	70 - 131	6	30
Ethylbenzene	0.0500	0.03802		mg/Kg		76	66 - 130	12	30
Toluene	0.0500	0.03930		mg/Kg		79	67 - 130	6	30
Xylenes, Total	0.100	0.07701		mg/Kg		77	63 - 130	10	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	89		61 - 130
Dibromofluoromethane	92		68 - 140
Toluene-d8 (Surr)	85		50 - 130
4-Bromofluorobenzene	98		57 - 140

TestAmerica Houston

QC Association Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154065-1

GC/MS VOA

Analysis Batch: 221630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154065-6	TB-09182017	Total/NA	Water	8260B	
MB 600-221630/7	Method Blank	Total/NA	Water	8260B	
LCS 600-221630/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-221630/5	Lab Control Sample Dup	Total/NA	Water	8260B	

Prep Batch: 221757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154065-1	MW46-NFP-12-13-09182017	Total/NA	Solid	5035_ASP	
600-154065-2	MW46-NFP-25-26-09182017	Total/NA	Solid	5035_ASP	
600-154065-3	MW46-NFP-35-36-09182017	Total/NA	Solid	5035_ASP	
600-154065-4	MW46-NFP-41-42-09182017	Total/NA	Solid	5035_ASP	
600-154065-5	MW46-NFP-49-50-09182017	Total/NA	Solid	5035_ASP	

Analysis Batch: 221965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154065-1	MW46-NFP-12-13-09182017	Total/NA	Solid	8260B	221757
600-154065-2	MW46-NFP-25-26-09182017	Total/NA	Solid	8260B	221757
600-154065-3	MW46-NFP-35-36-09182017	Total/NA	Solid	8260B	221757
600-154065-4	MW46-NFP-41-42-09182017	Total/NA	Solid	8260B	221757
600-154065-5	MW46-NFP-49-50-09182017	Total/NA	Solid	8260B	221757
MB 600-221965/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-221965/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-221965/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

General Chemistry

Analysis Batch: 221759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154065-1	MW46-NFP-12-13-09182017	Total/NA	Solid	2540B	
600-154065-2	MW46-NFP-25-26-09182017	Total/NA	Solid	2540B	
600-154065-3	MW46-NFP-35-36-09182017	Total/NA	Solid	2540B	
600-154065-4	MW46-NFP-41-42-09182017	Total/NA	Solid	2540B	
600-154065-5	MW46-NFP-49-50-09182017	Total/NA	Solid	2540B	

TestAmerica Houston

Lab Chronicle

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154065-1

Client Sample ID: MW46-NFP-12-13-09182017

Lab Sample ID: 600-154065-1

Date Collected: 09/18/17 09:00

Matrix: Solid

Date Received: 09/19/17 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221759	09/20/17 15:35	B1K	TAL HOU

Client Sample ID: MW46-NFP-12-13-09182017

Lab Sample ID: 600-154065-1

Date Collected: 09/18/17 09:00

Matrix: Solid

Date Received: 09/19/17 10:19

Percent Solids: 95.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			4.814 g	5 mL	221757	09/19/17 14:14	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221965	09/23/17 10:20	WS1	TAL HOU

Client Sample ID: MW46-NFP-25-26-09182017

Lab Sample ID: 600-154065-2

Date Collected: 09/18/17 09:18

Matrix: Solid

Date Received: 09/19/17 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221759	09/20/17 15:58	B1K	TAL HOU

Client Sample ID: MW46-NFP-25-26-09182017

Lab Sample ID: 600-154065-2

Date Collected: 09/18/17 09:18

Matrix: Solid

Date Received: 09/19/17 10:19

Percent Solids: 91.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.317 g	5 mL	221757	09/19/17 14:14	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221965	09/23/17 10:44	WS1	TAL HOU

Client Sample ID: MW46-NFP-35-36-09182017

Lab Sample ID: 600-154065-3

Date Collected: 09/18/17 09:35

Matrix: Solid

Date Received: 09/19/17 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221759	09/20/17 15:35	B1K	TAL HOU

Client Sample ID: MW46-NFP-35-36-09182017

Lab Sample ID: 600-154065-3

Date Collected: 09/18/17 09:35

Matrix: Solid

Date Received: 09/19/17 10:19

Percent Solids: 87.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.488 g	5 mL	221757	09/19/17 14:14	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221965	09/23/17 11:09	WS1	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154065-1

Client Sample ID: MW46-NFP-41-42-09182017

Lab Sample ID: 600-154065-4

Date Collected: 09/18/17 10:05

Matrix: Solid

Date Received: 09/19/17 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221759	09/20/17 15:35	B1K	TAL HOU

Client Sample ID: MW46-NFP-41-42-09182017

Lab Sample ID: 600-154065-4

Date Collected: 09/18/17 10:05

Matrix: Solid

Date Received: 09/19/17 10:19

Percent Solids: 90.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			4.96 g	5 mL	221757	09/19/17 14:14	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221965	09/23/17 11:33	WS1	TAL HOU

Client Sample ID: MW46-NFP-49-50-09182017

Lab Sample ID: 600-154065-5

Date Collected: 09/18/17 12:00

Matrix: Solid

Date Received: 09/19/17 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221759	09/20/17 15:35	B1K	TAL HOU

Client Sample ID: MW46-NFP-49-50-09182017

Lab Sample ID: 600-154065-5

Date Collected: 09/18/17 12:00

Matrix: Solid

Date Received: 09/19/17 10:19

Percent Solids: 84.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			6.806 g	5 mL	221757	09/19/17 14:14	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221965	09/23/17 11:58	WS1	TAL HOU

Client Sample ID: TB-09182017

Lab Sample ID: 600-154065-6

Date Collected: 09/18/17 08:35

Matrix: Water

Date Received: 09/19/17 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	221630	09/19/17 17:00	YX1	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TestAmerica Houston

Accreditation/Certification Summary

Client: CH2M Hill Constructors, Inc.

TestAmerica Job ID: 600-154065-1

Project/Site: Kinder Morgan Bloomfield, NM NFP

Laboratory: TestAmerica Houston

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
Arkansas DEQ	State Program	6	17-051-0	08-04-18
Louisiana	NELAP	6	01967	06-30-18
Oklahoma	State Program	6	2017-138	08-31-18
Texas	NELAP	6	T104704223-17-21	10-31-17
USDA	Federal		P330-17-00132	04-20-20

TestAmerica Houston

TestAmerica Houston

Loc: 600
154065

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sample Receipt

JOB NUMBER: _____

Date/Time Received: _____

17 SEP 19 10:19

UNPACKED BY: _____

CLIENT: _____

CH2M Hill

CARRIER/DRIVER: _____

Fed-Ex

Custody Seal Present:

☒ YES☐ NO

Number of Coolers Received: _____

1

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
BW	Y / N	Y / N	5.0	549	-0.3	4.7
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice?

☒ YES☐ NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED:

☒ NO☐ YES

Base samples are > pH 12:

☐ YES☐ NO

Acid preserved are < pH 2:

☐ YES☐ NO

pH paper Lot # _____

VOA headspace acceptable (5-6mm):

☐ YES☐ NO☒ NA

YES NO

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?

YES

NO

COMMENTS:

Login Sample Receipt Checklist

Client: CH2M Hill Constructors, Inc.

Job Number: 600-154065-1

Login Number: 154065

List Source: TestAmerica Houston

List Number: 1

Creator: Crafton, Tommie S

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
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	4.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.



Environment Testing America

ANALYTICAL REPORT

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

Laboratory Job ID: 600-154152-1

Client Project/Site: Kinder Morgan Bloomfield, NM NFP
Revision: 1

For:

CH2M Hill Constructors, Inc.
14701 St. Mary's Lane
Suite 300
Houston, Texas 77079-2923

Attn: Mr. John Ynfante

Authorized for release by:

12/10/2020 10:27:07 AM

Steve Stepanski, Project Mgmt. Assistant
(713)690-4444

steve.stepanski@Eurofinset.com

Designee for

Cathy Upton, Project Manager I
(713)690-4444

cathy.upton@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

Laboratory Job ID: 600-154152-1

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Case Narrative

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

Job ID: 600-154152-1

Job ID: 600-154152-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-154152-1

Comments

This report was revised to a Level 2 deliverable per client's request.

Receipt

The samples were received on 9/20/2017 10:31 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.8° C.

GC/MS VOA

Method(s) 8260B: The following samples was diluted due to the nature of the sample matrix: MW47-NFP-44-45-09192017 (600-154152-6) and MW47-NFP-47-49-09192017 (600-154152-8). 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.

General Chemistry

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

Method Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154152-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
2540B	Percent Moisture	SM20	TAL HOU

Protocol References:

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: CH2M Hill Constructors, Inc.

TestAmerica Job ID: 600-154152-1

Project/Site: Kinder Morgan Bloomfield, NM NFP

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-154152-1	TB10-NFP-09192017	Water	09/19/17 12:00	09/20/17 10:31
600-154152-2	MW47-NFP-12-13-09192017	Solid	09/19/17 13:40	09/20/17 10:31
600-154152-3	MW47-NFP-20-21-09192017	Solid	09/19/17 14:10	09/20/17 10:31
600-154152-4	MW47-NFP-30-31-09192017	Solid	09/19/17 14:20	09/20/17 10:31
600-154152-5	MW47-NFP-39-40-09192017	Solid	09/19/17 14:40	09/20/17 10:31
600-154152-6	MW47-NFP-44-45-09192017	Solid	09/19/17 15:20	09/20/17 10:31
600-154152-7	MW47-NFP-46-47-09192017	Solid	09/19/17 15:30	09/20/17 10:31
600-154152-8	MW47-NFP-47-49-09192017	Solid	09/19/17 15:45	09/20/17 10:31

TestAmerica Houston

Client Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154152-1

Client Sample ID: TB10-NFP-09192017

Lab Sample ID: 600-154152-1

Date Collected: 09/19/17 12:00

Matrix: Water

Date Received: 09/20/17 10:31

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			09/20/17 14:11	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			09/20/17 14:11	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			09/20/17 14:11	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			09/20/17 14:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		50 - 134					09/20/17 14:11	1
Dibromofluoromethane	102		62 - 130					09/20/17 14:11	1
Toluene-d8 (Surr)	96		70 - 130					09/20/17 14:11	1
4-Bromofluorobenzene	107		67 - 139					09/20/17 14:11	1

Client Sample ID: MW47-NFP-12-13-09192017

Lab Sample ID: 600-154152-2

Date Collected: 09/19/17 13:40

Matrix: Solid

Date Received: 09/20/17 10:31

Percent Solids: 92.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000685	U	0.00543	0.000685	mg/Kg	✱	09/20/17 12:23	09/23/17 14:50	1
Ethylbenzene	0.00111	U	0.00543	0.00111	mg/Kg	✱	09/20/17 12:23	09/23/17 14:50	1
Toluene	0.00150	U	0.00543	0.00150	mg/Kg	✱	09/20/17 12:23	09/23/17 14:50	1
Xylenes, Total	0.00123	U	0.00543	0.00123	mg/Kg	✱	09/20/17 12:23	09/23/17 14:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		61 - 130				09/20/17 12:23	09/23/17 14:50	1
Dibromofluoromethane	86		68 - 140				09/20/17 12:23	09/23/17 14:50	1
Toluene-d8 (Surr)	78		50 - 130				09/20/17 12:23	09/23/17 14:50	1
4-Bromofluorobenzene	96		57 - 140				09/20/17 12:23	09/23/17 14:50	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.9		1.0	1.0	%			09/20/17 15:35	1
Percent Solids	92.1		1.0	1.0	%			09/20/17 15:35	1

Client Sample ID: MW47-NFP-20-21-09192017

Lab Sample ID: 600-154152-3

Date Collected: 09/19/17 14:10

Matrix: Solid

Date Received: 09/20/17 10:31

Percent Solids: 95.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000664	U	0.00527	0.000664	mg/Kg	✱	09/20/17 12:23	09/23/17 15:15	1
Ethylbenzene	0.00107	U	0.00527	0.00107	mg/Kg	✱	09/20/17 12:23	09/23/17 15:15	1
Toluene	0.00145	U	0.00527	0.00145	mg/Kg	✱	09/20/17 12:23	09/23/17 15:15	1
Xylenes, Total	0.00119	U	0.00527	0.00119	mg/Kg	✱	09/20/17 12:23	09/23/17 15:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		61 - 130				09/20/17 12:23	09/23/17 15:15	1
Dibromofluoromethane	88		68 - 140				09/20/17 12:23	09/23/17 15:15	1
Toluene-d8 (Surr)	79		50 - 130				09/20/17 12:23	09/23/17 15:15	1
4-Bromofluorobenzene	100		57 - 140				09/20/17 12:23	09/23/17 15:15	1

TestAmerica Houston

Client Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154152-1

Client Sample ID: MW47-NFP-20-21-09192017

Lab Sample ID: 600-154152-3

Date Collected: 09/19/17 14:10

Matrix: Solid

Date Received: 09/20/17 10:31

Percent Solids: 95.3

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.7		1.0	1.0	%			09/20/17 15:35	1
Percent Solids	95.3		1.0	1.0	%			09/20/17 15:35	1

Client Sample ID: MW47-NFP-30-31-09192017

Lab Sample ID: 600-154152-4

Date Collected: 09/19/17 14:20

Matrix: Solid

Date Received: 09/20/17 10:31

Percent Solids: 95.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000586	U	0.00465	0.000586	mg/Kg	☼	09/20/17 12:23	09/23/17 15:40	1
Ethylbenzene	0.000949	U	0.00465	0.000949	mg/Kg	☼	09/20/17 12:23	09/23/17 15:40	1
Toluene	0.00128	U	0.00465	0.00128	mg/Kg	☼	09/20/17 12:23	09/23/17 15:40	1
Xylenes, Total	0.00105	U	0.00465	0.00105	mg/Kg	☼	09/20/17 12:23	09/23/17 15:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		61 - 130	09/20/17 12:23	09/23/17 15:40	1
Dibromofluoromethane	88		68 - 140	09/20/17 12:23	09/23/17 15:40	1
Toluene-d8 (Surr)	79		50 - 130	09/20/17 12:23	09/23/17 15:40	1
4-Bromofluorobenzene	100		57 - 140	09/20/17 12:23	09/23/17 15:40	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.3		1.0	1.0	%			09/20/17 15:35	1
Percent Solids	95.7		1.0	1.0	%			09/20/17 15:35	1

Client Sample ID: MW47-NFP-39-40-09192017

Lab Sample ID: 600-154152-5

Date Collected: 09/19/17 14:40

Matrix: Solid

Date Received: 09/20/17 10:31

Percent Solids: 85.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00640		0.00410	0.000516	mg/Kg	☼	09/20/17 12:23	09/23/17 18:07	1
Ethylbenzene	0.0438		0.00410	0.000836	mg/Kg	☼	09/20/17 12:23	09/23/17 18:07	1
Toluene	0.00113	U	0.00410	0.00113	mg/Kg	☼	09/20/17 12:23	09/23/17 18:07	1
Xylenes, Total	0.104		0.00410	0.000926	mg/Kg	☼	09/20/17 12:23	09/23/17 18:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		61 - 130	09/20/17 12:23	09/23/17 18:07	1
Dibromofluoromethane	88		68 - 140	09/20/17 12:23	09/23/17 18:07	1
Toluene-d8 (Surr)	83		50 - 130	09/20/17 12:23	09/23/17 18:07	1
4-Bromofluorobenzene	90		57 - 140	09/20/17 12:23	09/23/17 18:07	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.0		1.0	1.0	%			09/20/17 15:35	1
Percent Solids	85.0		1.0	1.0	%			09/20/17 15:35	1

TestAmerica Houston

Client Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154152-1

Client Sample ID: MW47-NFP-44-45-09192017

Lab Sample ID: 600-154152-6

Date Collected: 09/19/17 15:20

Matrix: Solid

Date Received: 09/20/17 10:31

Percent Solids: 81.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	6.08		0.652	0.0822	mg/Kg	☼	09/20/17 12:23	09/25/17 14:52	1
Ethylbenzene	1.67		0.652	0.133	mg/Kg	☼	09/20/17 12:23	09/25/17 14:52	1
Toluene	0.180	U	0.652	0.180	mg/Kg	☼	09/20/17 12:23	09/25/17 14:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	73		61 - 130	09/20/17 12:23	09/25/17 14:52	1
Dibromofluoromethane	86		68 - 140	09/20/17 12:23	09/25/17 14:52	1
Toluene-d8 (Surr)	103		50 - 130	09/20/17 12:23	09/25/17 14:52	1
4-Bromofluorobenzene	100		57 - 140	09/20/17 12:23	09/25/17 14:52	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	40.4		3.26	0.737	mg/Kg	☼	09/20/17 12:23	09/25/17 21:45	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		61 - 130	09/20/17 12:23	09/25/17 21:45	5
Dibromofluoromethane	83		68 - 140	09/20/17 12:23	09/25/17 21:45	5
Toluene-d8 (Surr)	100		50 - 130	09/20/17 12:23	09/25/17 21:45	5
4-Bromofluorobenzene	107		57 - 140	09/20/17 12:23	09/25/17 21:45	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.9		1.0	1.0	%			09/20/17 15:35	1
Percent Solids	81.1		1.0	1.0	%			09/20/17 15:35	1

Client Sample ID: MW47-NFP-46-47-09192017

Lab Sample ID: 600-154152-7

Date Collected: 09/19/17 15:30

Matrix: Solid

Date Received: 09/20/17 10:31

Percent Solids: 87.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0490		0.00516	0.000650	mg/Kg	☼	09/20/17 12:23	09/23/17 16:04	1
Ethylbenzene	0.00398	J	0.00516	0.00105	mg/Kg	☼	09/20/17 12:23	09/23/17 16:04	1
Toluene	0.00727		0.00516	0.00142	mg/Kg	☼	09/20/17 12:23	09/23/17 16:04	1
Xylenes, Total	0.132		0.00516	0.00117	mg/Kg	☼	09/20/17 12:23	09/23/17 16:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		61 - 130	09/20/17 12:23	09/23/17 16:04	1
Dibromofluoromethane	86		68 - 140	09/20/17 12:23	09/23/17 16:04	1
Toluene-d8 (Surr)	80		50 - 130	09/20/17 12:23	09/23/17 16:04	1
4-Bromofluorobenzene	98		57 - 140	09/20/17 12:23	09/23/17 16:04	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12.7		1.0	1.0	%			09/20/17 15:35	1
Percent Solids	87.3		1.0	1.0	%			09/20/17 15:35	1

TestAmerica Houston

Client Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154152-1

Client Sample ID: MW47-NFP-47-49-09192017

Lab Sample ID: 600-154152-8

Date Collected: 09/19/17 15:45

Matrix: Solid

Date Received: 09/20/17 10:31

Percent Solids: 82.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.82		0.299	0.0377	mg/Kg	☼	09/20/17 12:23	09/25/17 15:15	1
Ethylbenzene	0.524		0.299	0.0610	mg/Kg	☼	09/20/17 12:23	09/25/17 15:15	1
Toluene	9.25		0.299	0.0826	mg/Kg	☼	09/20/17 12:23	09/25/17 15:15	1
Xylenes, Total	5.29		0.299	0.0676	mg/Kg	☼	09/20/17 12:23	09/25/17 15:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	72		61 - 130	09/20/17 12:23	09/25/17 15:15	1
Dibromofluoromethane	84		68 - 140	09/20/17 12:23	09/25/17 15:15	1
Toluene-d8 (Surr)	98		50 - 130	09/20/17 12:23	09/25/17 15:15	1
4-Bromofluorobenzene	106		57 - 140	09/20/17 12:23	09/25/17 15:15	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.5		1.0	1.0	%			09/20/17 15:35	1
Percent Solids	82.5		1.0	1.0	%			09/20/17 15:35	1

TestAmerica Houston

Definitions/Glossary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154152-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
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)

Surrogate Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154152-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-154152-2	MW47-NFP-12-13-09192017	100	86	78	96
600-154152-3	MW47-NFP-20-21-09192017	103	88	79	100
600-154152-4	MW47-NFP-30-31-09192017	102	88	79	100
600-154152-5	MW47-NFP-39-40-09192017	97	88	83	90
600-154152-6 - DL	MW47-NFP-44-45-09192017	82	83	100	107
600-154152-6	MW47-NFP-44-45-09192017	73	86	103	100
600-154152-7	MW47-NFP-46-47-09192017	102	86	80	98
600-154152-8	MW47-NFP-47-49-09192017	72	84	98	106
LCS 600-221965/3	Lab Control Sample	93	93	84	97
LCS 600-222046/1-A	Lab Control Sample	73	82	99	100
LCSD 600-221965/4	Lab Control Sample Dup	89	92	85	98
LCSD 600-222046/2-A	Lab Control Sample Dup	74	84	102	103
MB 600-221965/6	Method Blank	102	91	84	94
MB 600-222046/3-A	Method Blank	76	85	104	99

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (50-134)	DBFM (62-130)	TOL (70-130)	BFB (67-139)
600-154152-1	TB10-NFP-09192017	112	102	96	107
LCS 600-221721/3	Lab Control Sample	106	109	95	112
LCSD 600-221721/4	Lab Control Sample Dup	108	110	94	111
MB 600-221721/6	Method Blank	113	103	96	104

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene

TestAmerica Houston

QC Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154152-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-221721/6

Matrix: Water

Analysis Batch: 221721

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			09/20/17 13:45	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			09/20/17 13:45	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			09/20/17 13:45	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			09/20/17 13:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		50 - 134		09/20/17 13:45	1
Dibromofluoromethane	103		62 - 130		09/20/17 13:45	1
Toluene-d8 (Surr)	96		70 - 130		09/20/17 13:45	1
4-Bromofluorobenzene	104		67 - 139		09/20/17 13:45	1

Lab Sample ID: LCS 600-221721/3

Matrix: Water

Analysis Batch: 221721

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.009738		mg/L		97	70 - 130
Ethylbenzene	0.0100	0.009711		mg/L		97	70 - 130
Toluene	0.0100	0.009168		mg/L		92	70 - 130
Xylenes, Total	0.0200	0.01961		mg/L		98	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		50 - 134
Dibromofluoromethane	109		62 - 130
Toluene-d8 (Surr)	95		70 - 130
4-Bromofluorobenzene	112		67 - 139

Lab Sample ID: LCSD 600-221721/4

Matrix: Water

Analysis Batch: 221721

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
Benzene	0.0100	0.009553		mg/L		96	70 - 130	2	20
Ethylbenzene	0.0100	0.009627		mg/L		96	70 - 130	1	20
Toluene	0.0100	0.008962		mg/L		90	70 - 130	2	20
Xylenes, Total	0.0200	0.01942		mg/L		97	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	108		50 - 134
Dibromofluoromethane	110		62 - 130
Toluene-d8 (Surr)	94		70 - 130
4-Bromofluorobenzene	111		67 - 139

TestAmerica Houston

QC Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154152-1

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

Lab Sample ID: MB 600-221965/6

Matrix: Solid

Analysis Batch: 221965

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			09/23/17 09:55	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			09/23/17 09:55	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			09/23/17 09:55	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			09/23/17 09:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		61 - 130		09/23/17 09:55	1
Dibromofluoromethane	91		68 - 140		09/23/17 09:55	1
Toluene-d8 (Surr)	84		50 - 130		09/23/17 09:55	1
4-Bromofluorobenzene	94		57 - 140		09/23/17 09:55	1

Lab Sample ID: LCS 600-221965/3

Matrix: Solid

Analysis Batch: 221965

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.04466		mg/Kg		89	70 - 131
Ethylbenzene	0.0500	0.04301		mg/Kg		86	66 - 130
Toluene	0.0500	0.04190		mg/Kg		84	67 - 130
Xylenes, Total	0.100	0.08479		mg/Kg		85	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		61 - 130
Dibromofluoromethane	93		68 - 140
Toluene-d8 (Surr)	84		50 - 130
4-Bromofluorobenzene	97		57 - 140

Lab Sample ID: LCSD 600-221965/4

Matrix: Solid

Analysis Batch: 221965

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
Benzene	0.0500	0.04196		mg/Kg		84	70 - 131	6	30
Ethylbenzene	0.0500	0.03802		mg/Kg		76	66 - 130	12	30
Toluene	0.0500	0.03930		mg/Kg		79	67 - 130	6	30
Xylenes, Total	0.100	0.07701		mg/Kg		77	63 - 130	10	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	89		61 - 130
Dibromofluoromethane	92		68 - 140
Toluene-d8 (Surr)	85		50 - 130
4-Bromofluorobenzene	98		57 - 140

TestAmerica Houston

QC Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154152-1

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

Lab Sample ID: MB 600-222046/3-A

Matrix: Solid

Analysis Batch: 222052

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 222046

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0788	U	0.625	0.0788	mg/Kg		09/25/17 11:00	09/25/17 13:43	1
Ethylbenzene	0.128	U	0.625	0.128	mg/Kg		09/25/17 11:00	09/25/17 13:43	1
Toluene	0.173	U	0.625	0.173	mg/Kg		09/25/17 11:00	09/25/17 13:43	1
Xylenes, Total	0.141	U	0.625	0.141	mg/Kg		09/25/17 11:00	09/25/17 13:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	76		61 - 130	09/25/17 11:00	09/25/17 13:43	1
Dibromofluoromethane	85		68 - 140	09/25/17 11:00	09/25/17 13:43	1
Toluene-d8 (Surr)	104		50 - 130	09/25/17 11:00	09/25/17 13:43	1
4-Bromofluorobenzene	99		57 - 140	09/25/17 11:00	09/25/17 13:43	1

Lab Sample ID: LCS 600-222046/1-A

Matrix: Solid

Analysis Batch: 222052

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 222046

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.25	5.529		mg/Kg		88	70 - 131
Ethylbenzene	6.25	6.248		mg/Kg		100	66 - 130
Toluene	6.25	6.024		mg/Kg		96	67 - 130
Xylenes, Total	12.5	12.52		mg/Kg		100	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	73		61 - 130
Dibromofluoromethane	82		68 - 140
Toluene-d8 (Surr)	99		50 - 130
4-Bromofluorobenzene	100		57 - 140

Lab Sample ID: LCSD 600-222046/2-A

Matrix: Solid

Analysis Batch: 222052

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 222046

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	6.25	5.737		mg/Kg		92	70 - 131	4	30
Ethylbenzene	6.25	6.232		mg/Kg		100	66 - 130	0	30
Toluene	6.25	6.285		mg/Kg		101	67 - 130	4	30
Xylenes, Total	12.5	12.65		mg/Kg		101	63 - 130	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	74		61 - 130
Dibromofluoromethane	84		68 - 140
Toluene-d8 (Surr)	102		50 - 130
4-Bromofluorobenzene	103		57 - 140

TestAmerica Houston

QC Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154152-1

Method: 2540B - Percent Moisture

Lab Sample ID: 600-154152-7 DU
Matrix: Solid
Analysis Batch: 221759

Client Sample ID: MW47-NFP-46-47-09192017
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Percent Moisture	12.7		13.2		%		4	20
Percent Solids	87.3		86.8		%		0.6	20

QC Association Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154152-1

GC/MS VOA

Analysis Batch: 221721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154152-1	TB10-NFP-09192017	Total/NA	Water	8260B	
MB 600-221721/6	Method Blank	Total/NA	Water	8260B	
LCS 600-221721/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-221721/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 221965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154152-2	MW47-NFP-12-13-09192017	Total/NA	Solid	8260B	221984
600-154152-3	MW47-NFP-20-21-09192017	Total/NA	Solid	8260B	221984
600-154152-4	MW47-NFP-30-31-09192017	Total/NA	Solid	8260B	221984
600-154152-5	MW47-NFP-39-40-09192017	Total/NA	Solid	8260B	221984
600-154152-7	MW47-NFP-46-47-09192017	Total/NA	Solid	8260B	221984
MB 600-221965/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-221965/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-221965/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

Prep Batch: 221984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154152-2	MW47-NFP-12-13-09192017	Total/NA	Solid	5035_ASP	
600-154152-3	MW47-NFP-20-21-09192017	Total/NA	Solid	5035_ASP	
600-154152-4	MW47-NFP-30-31-09192017	Total/NA	Solid	5035_ASP	
600-154152-5	MW47-NFP-39-40-09192017	Total/NA	Solid	5035_ASP	
600-154152-7	MW47-NFP-46-47-09192017	Total/NA	Solid	5035_ASP	

Prep Batch: 222046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 600-222046/3-A	Method Blank	Total/NA	Solid	5030B	
LCS 600-222046/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 600-222046/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	

Prep Batch: 222048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154152-6	MW47-NFP-44-45-09192017	Total/NA	Solid	5035	
600-154152-6 - DL	MW47-NFP-44-45-09192017	Total/NA	Solid	5035	
600-154152-8	MW47-NFP-47-49-09192017	Total/NA	Solid	5035	

Analysis Batch: 222052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154152-6	MW47-NFP-44-45-09192017	Total/NA	Solid	8260B	222048
600-154152-6 - DL	MW47-NFP-44-45-09192017	Total/NA	Solid	8260B	222048
600-154152-8	MW47-NFP-47-49-09192017	Total/NA	Solid	8260B	222048
MB 600-222046/3-A	Method Blank	Total/NA	Solid	8260B	222046
LCS 600-222046/1-A	Lab Control Sample	Total/NA	Solid	8260B	222046
LCSD 600-222046/2-A	Lab Control Sample Dup	Total/NA	Solid	8260B	222046

General Chemistry

Analysis Batch: 221759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154152-2	MW47-NFP-12-13-09192017	Total/NA	Solid	2540B	

TestAmerica Houston

QC Association Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154152-1

General Chemistry (Continued)

Analysis Batch: 221759 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154152-3	MW47-NFP-20-21-09192017	Total/NA	Solid	2540B	
600-154152-4	MW47-NFP-30-31-09192017	Total/NA	Solid	2540B	
600-154152-5	MW47-NFP-39-40-09192017	Total/NA	Solid	2540B	
600-154152-6	MW47-NFP-44-45-09192017	Total/NA	Solid	2540B	
600-154152-7	MW47-NFP-46-47-09192017	Total/NA	Solid	2540B	
600-154152-8	MW47-NFP-47-49-09192017	Total/NA	Solid	2540B	
600-154152-7 DU	MW47-NFP-46-47-09192017	Total/NA	Solid	2540B	

TestAmerica Houston

Lab Chronicle

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154152-1

Client Sample ID: TB10-NFP-09192017**Lab Sample ID: 600-154152-1**

Date Collected: 09/19/17 12:00

Matrix: Water

Date Received: 09/20/17 10:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	221721	09/20/17 14:11	YX1	TAL HOU

Client Sample ID: MW47-NFP-12-13-09192017**Lab Sample ID: 600-154152-2**

Date Collected: 09/19/17 13:40

Matrix: Solid

Date Received: 09/20/17 10:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221759	09/20/17 15:35	B1K	TAL HOU

Client Sample ID: MW47-NFP-12-13-09192017**Lab Sample ID: 600-154152-2**

Date Collected: 09/19/17 13:40

Matrix: Solid

Date Received: 09/20/17 10:31

Percent Solids: 92.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			4.997 g	5 mL	221984	09/20/17 12:23	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221965	09/23/17 14:50	WS1	TAL HOU

Client Sample ID: MW47-NFP-20-21-09192017**Lab Sample ID: 600-154152-3**

Date Collected: 09/19/17 14:10

Matrix: Solid

Date Received: 09/20/17 10:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221759	09/20/17 15:35	B1K	TAL HOU

Client Sample ID: MW47-NFP-20-21-09192017**Lab Sample ID: 600-154152-3**

Date Collected: 09/19/17 14:10

Matrix: Solid

Date Received: 09/20/17 10:31

Percent Solids: 95.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			4.982 g	5 mL	221984	09/20/17 12:23	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221965	09/23/17 15:15	WS1	TAL HOU

Client Sample ID: MW47-NFP-30-31-09192017**Lab Sample ID: 600-154152-4**

Date Collected: 09/19/17 14:20

Matrix: Solid

Date Received: 09/20/17 10:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221759	09/20/17 15:35	B1K	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154152-1

Client Sample ID: MW47-NFP-30-31-09192017

Lab Sample ID: 600-154152-4

Date Collected: 09/19/17 14:20

Matrix: Solid

Date Received: 09/20/17 10:31

Percent Solids: 95.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.616 g	5 mL	221984	09/20/17 12:23	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221965	09/23/17 15:40	WS1	TAL HOU

Client Sample ID: MW47-NFP-39-40-09192017

Lab Sample ID: 600-154152-5

Date Collected: 09/19/17 14:40

Matrix: Solid

Date Received: 09/20/17 10:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221759	09/20/17 15:35	B1K	TAL HOU

Client Sample ID: MW47-NFP-39-40-09192017

Lab Sample ID: 600-154152-5

Date Collected: 09/19/17 14:40

Matrix: Solid

Date Received: 09/20/17 10:31

Percent Solids: 85.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			7.177 g	5 mL	221984	09/20/17 12:23	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221965	09/23/17 18:07	WS1	TAL HOU

Client Sample ID: MW47-NFP-44-45-09192017

Lab Sample ID: 600-154152-6

Date Collected: 09/19/17 15:20

Matrix: Solid

Date Received: 09/20/17 10:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221759	09/20/17 15:35	B1K	TAL HOU

Client Sample ID: MW47-NFP-44-45-09192017

Lab Sample ID: 600-154152-6

Date Collected: 09/19/17 15:20

Matrix: Solid

Date Received: 09/20/17 10:31

Percent Solids: 81.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.728 g	10 mL	222048	09/20/17 12:23	KLV	TAL HOU
Total/NA	Analysis	8260B		1	100 uL	5 mL	222052	09/25/17 14:52	KLV	TAL HOU
Total/NA	Prep	5035	DL		4.728 g	10 mL	222048	09/20/17 12:23	KLV	TAL HOU
Total/NA	Analysis	8260B	DL	5	100 uL	5 mL	222052	09/25/17 21:45	KLV	TAL HOU

Client Sample ID: MW47-NFP-46-47-09192017

Lab Sample ID: 600-154152-7

Date Collected: 09/19/17 15:30

Matrix: Solid

Date Received: 09/20/17 10:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221759	09/20/17 15:35	B1K	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154152-1

Client Sample ID: MW47-NFP-46-47-09192017

Lab Sample ID: 600-154152-7

Date Collected: 09/19/17 15:30

Matrix: Solid

Date Received: 09/20/17 10:31

Percent Solids: 87.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.552 g	5 mL	221984	09/20/17 12:23	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	221965	09/23/17 16:04	WS1	TAL HOU

Client Sample ID: MW47-NFP-47-49-09192017

Lab Sample ID: 600-154152-8

Date Collected: 09/19/17 15:45

Matrix: Solid

Date Received: 09/20/17 10:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			221759	09/20/17 15:35	B1K	TAL HOU

Client Sample ID: MW47-NFP-47-49-09192017

Lab Sample ID: 600-154152-8

Date Collected: 09/19/17 15:45

Matrix: Solid

Date Received: 09/20/17 10:31

Percent Solids: 82.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.066 g	5 mL	222048	09/20/17 12:23	KLK	TAL HOU
Total/NA	Analysis	8260B		1	100 uL	5 mL	222052	09/25/17 15:15	KLK	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TestAmerica Houston

Accreditation/Certification Summary

Client: CH2M Hill Constructors, Inc.

TestAmerica Job ID: 600-154152-1

Project/Site: Kinder Morgan Bloomfield, NM NFP

Laboratory: TestAmerica Houston

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
Arkansas DEQ	State Program	6	17-051-0	08-04-18
Louisiana	NELAP	6	01967	06-30-18
Oklahoma	State Program	6	2017-138	08-31-18
Texas	NELAP	6	T104704223-17-21	10-31-17
USDA	Federal		P330-17-00132	04-20-20

TestAmerica Houston

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

TestAmerica



Client Information		Samp/er: Lab PM	
Aleeca Forsberg		Upton, Cathy L	
CH2M Hill, Inc.		E-Mail	
3721 Rutledge Rd NE Suite B-1		cathy.upton@testam.	
City: Albuquerque		Job #	
State, Zip: NM, 87109		Page 1 of 1	
Phone: 281-721-8546(Tel)		SOC No: 500-36947-10949.1	
Email: Aleeca.Forsberg@CH2M.com		600-154152 Chain of Custody	
Project Name: Kinder Morgan Bloomfield, NM NFP		Due Date Requested:	
Site: BTEX Soils		TAT Requested (days):	
		10 BD Prelim; 14 BD Level3 Package (3e)	
PO #		WD293112	
WO #		HOUSTON Project #	
60004617		SSOW#	

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=oil)	Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		SOILS		8260B, 5035 - BTEX (SHORT HOLD-48Hrs)		Percent Moisture		WATERS		8260B, LL - BTEX		Total Number of Containers	Special Instructions/Note:
					Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)				
TB10 - NFP-09192017	9/19/17	1200	G	Water	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	*** 48Hr Holding Time
MW47 - NFP-12-13-09192017	9/19/17	1340	G	Soil	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	From Sample Collection
MW47 - NFP-20-21-09192017	9/19/17	1410	G	Soil	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
MW47 - NFP-30-31-09192017	9/19/17	1420	G	Soil	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
MW47 - NFP-39-40-09192017	9/19/17	1440	G	Soil	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	PID > 100 ppm
MW47 - NFP-44-45-09192017	9/19/17	1520	G	Soil	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	PID > 100 ppm
MW47 - NFP-46-47-09192017	9/19/17	1530	G	Soil	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	PID > 100 ppm
MW47 - NFP-47-49-09192017	9/19/17	1545	G	Soil	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	PID > 100 ppm
			G	Soil																
			G	Soil																
			G	Water																

Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
☐ Non-Hazard	☐ Flammable	☒ Return To Client	☐ Disposal By Lab
☐ Skin Irritant	☐ Poison B	☐ Archive For	Months
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements	
Empty Kit Relinquished by		Method of Shipment	
Relinquished by: L.Hill J.Hill		Date/Time: 9/19/17 1700	
Relinquished by:		Date/Time:	
Relinquished by:		Date/Time:	
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks	

TestAmerica Houston

Loc: 600

154152

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sample Receipt Ch

Date/Time Received: 17 SEP 20 10:31

JOB NUMBER:

CLIENT: CH2M Hill

UNPACKED BY: Jacquelyn T.

CARRIER/DRIVER: FedEx

Custody Seal Present:

☒ YES☐ NO

Number of Coolers Received: 1

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
BW	Y / N	Y / N	5.1	544	-0.3	4.8
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice?

☒ YES☐ NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED:

☒ NO☐ YES

Base samples are >pH 12:

☐ YES☐ NO

Acid preserved are <pH 2:

☐ YES☐ NO

pH paper Lot #

VOA headspace acceptable (5-6mm):

☐ YES☐ NO☒ NA

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?

YES NO

☒☐

COMMENTS:

Login Sample Receipt Checklist

Client: CH2M Hill Constructors, Inc.

Job Number: 600-154152-1

Login Number: 154152

List Source: TestAmerica Houston

List Number: 1

Creator: Crafton, Tommie S

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
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	4.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.



Environment Testing America

ANALYTICAL REPORT

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

Laboratory Job ID: 600-154335-1

Client Project/Site: Kinder Morgan Bloomfield, NM NFP
Revision: 1

For:

CH2M Hill Constructors, Inc.
14701 St. Mary's Lane
Suite 300
Houston, Texas 77079-2923

Attn: Mr. John Ynfante

Authorized for release by:

12/10/2020 10:29:08 AM

Steve Stepanski, Project Mgmt. Assistant
(713)690-4444

steve.stepanski@Eurofinset.com

Designee for

Cathy Upton, Project Manager I
(713)690-4444

cathy.upton@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

Laboratory Job ID: 600-154335-1

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Case Narrative

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

Job ID: 600-154335-1

Job ID: 600-154335-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-154335-1

Comments

This report was revised to a Level 2 deliverable per client's request.

Receipt

The samples were received on 9/22/2017 10:36 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.8° C.

GC/MS VOA

Method(s) 8260B: The following sample was diluted due to the nature of the sample matrix: MW48-NFP-39-40-09212017 (600-154335-5). 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.

General Chemistry

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

Method Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154335-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
2540B	Percent Moisture	SM20	TAL HOU

Protocol References:

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: CH2M Hill Constructors, Inc.

TestAmerica Job ID: 600-154335-1

Project/Site: Kinder Morgan Bloomfield, NM NFP

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-154335-1	TB11-NFP-09212017	Water	09/21/17 07:00	09/22/17 10:36
600-154335-2	MW48-NFP-12-13-09212017	Solid	09/21/17 07:30	09/22/17 10:36
600-154335-3	MW48-NFP-21-22-09212017	Solid	09/21/17 07:45	09/22/17 10:36
600-154335-4	MW48-NFP-36-37-09212017	Solid	09/21/17 10:30	09/22/17 10:36
600-154335-5	MW48-NFP-39-40-09212017	Solid	09/21/17 10:35	09/22/17 10:36
600-154335-6	MW48-NFP-29-30-09212017	Solid	09/21/17 11:00	09/22/17 10:36

TestAmerica Houston

Client Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154335-1

Client Sample ID: TB11-NFP-09212017

Lab Sample ID: 600-154335-1

Date Collected: 09/21/17 07:00

Matrix: Water

Date Received: 09/22/17 10:36

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			09/23/17 14:57	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			09/23/17 14:57	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			09/23/17 14:57	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			09/23/17 14:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		50 - 134		09/23/17 14:57	1
Dibromofluoromethane	101		62 - 130		09/23/17 14:57	1
Toluene-d8 (Surr)	94		70 - 130		09/23/17 14:57	1
4-Bromofluorobenzene	107		67 - 139		09/23/17 14:57	1

Client Sample ID: MW48-NFP-12-13-09212017

Lab Sample ID: 600-154335-2

Date Collected: 09/21/17 07:30

Matrix: Solid

Date Received: 09/22/17 10:36

Percent Solids: 93.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000670	U	0.00531	0.000670	mg/Kg	✱	09/22/17 16:38	09/25/17 16:29	1
Ethylbenzene	0.00108	U	0.00531	0.00108	mg/Kg	✱	09/22/17 16:38	09/25/17 16:29	1
Toluene	0.00147	U	0.00531	0.00147	mg/Kg	✱	09/22/17 16:38	09/25/17 16:29	1
Xylenes, Total	0.00120	U	0.00531	0.00120	mg/Kg	✱	09/22/17 16:38	09/25/17 16:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	81		61 - 130	09/22/17 16:38	09/25/17 16:29	1
Dibromofluoromethane	76		68 - 140	09/22/17 16:38	09/25/17 16:29	1
Toluene-d8 (Surr)	79		50 - 130	09/22/17 16:38	09/25/17 16:29	1
4-Bromofluorobenzene	93		57 - 140	09/22/17 16:38	09/25/17 16:29	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	6.7		1.0	1.0	%			09/25/17 16:12	1
Percent Solids	93.3		1.0	1.0	%			09/25/17 16:12	1

Client Sample ID: MW48-NFP-21-22-09212017

Lab Sample ID: 600-154335-3

Date Collected: 09/21/17 07:45

Matrix: Solid

Date Received: 09/22/17 10:36

Percent Solids: 87.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000632	U	0.00502	0.000632	mg/Kg	✱	09/22/17 16:38	09/25/17 16:54	1
Ethylbenzene	0.00102	U	0.00502	0.00102	mg/Kg	✱	09/22/17 16:38	09/25/17 16:54	1
Toluene	0.00138	U	0.00502	0.00138	mg/Kg	✱	09/22/17 16:38	09/25/17 16:54	1
Xylenes, Total	0.00113	U	0.00502	0.00113	mg/Kg	✱	09/22/17 16:38	09/25/17 16:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		61 - 130	09/22/17 16:38	09/25/17 16:54	1
Dibromofluoromethane	73		68 - 140	09/22/17 16:38	09/25/17 16:54	1
Toluene-d8 (Surr)	78		50 - 130	09/22/17 16:38	09/25/17 16:54	1
4-Bromofluorobenzene	90		57 - 140	09/22/17 16:38	09/25/17 16:54	1

TestAmerica Houston

Client Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154335-1

Client Sample ID: MW48-NFP-21-22-09212017

Lab Sample ID: 600-154335-3

Date Collected: 09/21/17 07:45

Matrix: Solid

Date Received: 09/22/17 10:36

Percent Solids: 87.6

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12.4		1.0	1.0	%			09/25/17 16:12	1
Percent Solids	87.6		1.0	1.0	%			09/25/17 16:12	1

Client Sample ID: MW48-NFP-36-37-09212017

Lab Sample ID: 600-154335-4

Date Collected: 09/21/17 10:30

Matrix: Solid

Date Received: 09/22/17 10:36

Percent Solids: 90.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00581		0.00449	0.000566	mg/Kg	☼	09/22/17 16:38	09/25/17 18:56	1
Ethylbenzene	0.0102		0.00449	0.000916	mg/Kg	☼	09/22/17 16:38	09/25/17 18:56	1
Toluene	0.0377		0.00449	0.00124	mg/Kg	☼	09/22/17 16:38	09/25/17 18:56	1
Xylenes, Total	0.156		0.00449	0.00101	mg/Kg	☼	09/22/17 16:38	09/25/17 18:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		61 - 130	09/22/17 16:38	09/25/17 18:56	1
Dibromofluoromethane	82		68 - 140	09/22/17 16:38	09/25/17 18:56	1
Toluene-d8 (Surr)	80		50 - 130	09/22/17 16:38	09/25/17 18:56	1
4-Bromofluorobenzene	96		57 - 140	09/22/17 16:38	09/25/17 18:56	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.4		1.0	1.0	%			09/25/17 16:12	1
Percent Solids	90.6		1.0	1.0	%			09/25/17 16:12	1

Client Sample ID: MW48-NFP-39-40-09212017

Lab Sample ID: 600-154335-5

Date Collected: 09/21/17 10:35

Matrix: Solid

Date Received: 09/22/17 10:36

Percent Solids: 85.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	3.88		0.317	0.0399	mg/Kg	☼	09/22/17 16:38	09/26/17 16:37	1
Ethylbenzene	1.80		0.317	0.0647	mg/Kg	☼	09/22/17 16:38	09/26/17 16:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	81		61 - 130	09/22/17 16:38	09/26/17 16:37	1
Dibromofluoromethane	80		68 - 140	09/22/17 16:38	09/26/17 16:37	1
Toluene-d8 (Surr)	99		50 - 130	09/22/17 16:38	09/26/17 16:37	1
4-Bromofluorobenzene	110		57 - 140	09/22/17 16:38	09/26/17 16:37	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	23.3		1.59	0.437	mg/Kg	☼	09/22/17 16:38	09/26/17 17:23	5
Xylenes, Total	25.2		1.59	0.358	mg/Kg	☼	09/22/17 16:38	09/26/17 17:23	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		61 - 130	09/22/17 16:38	09/26/17 17:23	5
Dibromofluoromethane	74		68 - 140	09/22/17 16:38	09/26/17 17:23	5
Toluene-d8 (Surr)	97		50 - 130	09/22/17 16:38	09/26/17 17:23	5
4-Bromofluorobenzene	114		57 - 140	09/22/17 16:38	09/26/17 17:23	5

TestAmerica Houston

Client Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154335-1

Client Sample ID: MW48-NFP-39-40-09212017

Lab Sample ID: 600-154335-5

Date Collected: 09/21/17 10:35

Matrix: Solid

Date Received: 09/22/17 10:36

Percent Solids: 85.7

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.3		1.0	1.0	%			09/25/17 16:12	1
Percent Solids	85.7		1.0	1.0	%			09/25/17 16:12	1

Client Sample ID: MW48-NFP-29-30-09212017

Lab Sample ID: 600-154335-6

Date Collected: 09/21/17 11:00

Matrix: Solid

Date Received: 09/22/17 10:36

Percent Solids: 90.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000530	U	0.00421	0.000530	mg/Kg	☼	09/22/17 16:38	09/25/17 17:18	1
Ethylbenzene	0.000858	U	0.00421	0.000858	mg/Kg	☼	09/22/17 16:38	09/25/17 17:18	1
Toluene	0.00116	U	0.00421	0.00116	mg/Kg	☼	09/22/17 16:38	09/25/17 17:18	1
Xylenes, Total	0.000951	U	0.00421	0.000951	mg/Kg	☼	09/22/17 16:38	09/25/17 17:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		61 - 130	09/22/17 16:38	09/25/17 17:18	1
Dibromofluoromethane	76		68 - 140	09/22/17 16:38	09/25/17 17:18	1
Toluene-d8 (Surr)	79		50 - 130	09/22/17 16:38	09/25/17 17:18	1
4-Bromofluorobenzene	95		57 - 140	09/22/17 16:38	09/25/17 17:18	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.9		1.0	1.0	%			09/25/17 16:12	1
Percent Solids	90.1		1.0	1.0	%			09/25/17 16:12	1

TestAmerica Houston

Definitions/Glossary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154335-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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)

Surrogate Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154335-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-154335-2	MW48-NFP-12-13-09212017	81	76	79	93
600-154335-3	MW48-NFP-21-22-09212017	79	73	78	90
600-154335-4	MW48-NFP-36-37-09212017	93	82	80	96
600-154335-5	MW48-NFP-39-40-09212017	81	80	99	110
600-154335-5 - DL	MW48-NFP-39-40-09212017	84	74	97	114
600-154335-6	MW48-NFP-29-30-09212017	85	76	79	95
LCS 600-222022/3	Lab Control Sample	75	82	84	93
LCS 600-222149/1-A	Lab Control Sample	76	82	103	106
LCSD 600-222022/4	Lab Control Sample Dup	79	80	86	97
LCSD 600-222149/2-A	Lab Control Sample Dup	85	85	98	103
MB 600-222022/6	Method Blank	82	77	79	92
MB 600-222149/3-A	Method Blank	81	84	100	112

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (50-134)	DBFM (62-130)	TOL (70-130)	BFB (67-139)
600-154335-1	TB11-NFP-09212017	109	101	94	107
LCS 600-221983/3	Lab Control Sample	117	108	92	110
LCSD 600-221983/4	Lab Control Sample Dup	107	106	92	110
MB 600-221983/6	Method Blank	112	102	93	105

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

TestAmerica Houston

QC Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154335-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-221983/6

Matrix: Water

Analysis Batch: 221983

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			09/23/17 14:30	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			09/23/17 14:30	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			09/23/17 14:30	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			09/23/17 14:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		50 - 134		09/23/17 14:30	1
Dibromofluoromethane	102		62 - 130		09/23/17 14:30	1
Toluene-d8 (Surr)	93		70 - 130		09/23/17 14:30	1
4-Bromofluorobenzene	105		67 - 139		09/23/17 14:30	1

Lab Sample ID: LCS 600-221983/3

Matrix: Water

Analysis Batch: 221983

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.01028		mg/L		103	70 - 130
Ethylbenzene	0.0100	0.009859		mg/L		99	70 - 130
Toluene	0.0100	0.009376		mg/L		94	70 - 130
Xylenes, Total	0.0200	0.02010		mg/L		101	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	117		50 - 134
Dibromofluoromethane	108		62 - 130
Toluene-d8 (Surr)	92		70 - 130
4-Bromofluorobenzene	110		67 - 139

Lab Sample ID: LCSD 600-221983/4

Matrix: Water

Analysis Batch: 221983

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
Benzene	0.0100	0.009481		mg/L		95	70 - 130	8	20
Ethylbenzene	0.0100	0.009138		mg/L		91	70 - 130	8	20
Toluene	0.0100	0.008610		mg/L		86	70 - 130	9	20
Xylenes, Total	0.0200	0.01852		mg/L		93	70 - 130	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		50 - 134
Dibromofluoromethane	106		62 - 130
Toluene-d8 (Surr)	92		70 - 130
4-Bromofluorobenzene	110		67 - 139

TestAmerica Houston

QC Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154335-1

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

Lab Sample ID: MB 600-222022/6

Matrix: Solid

Analysis Batch: 222022

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			09/25/17 09:52	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			09/25/17 09:52	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			09/25/17 09:52	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			09/25/17 09:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		61 - 130		09/25/17 09:52	1
Dibromofluoromethane	77		68 - 140		09/25/17 09:52	1
Toluene-d8 (Surr)	79		50 - 130		09/25/17 09:52	1
4-Bromofluorobenzene	92		57 - 140		09/25/17 09:52	1

Lab Sample ID: LCS 600-222022/3

Matrix: Solid

Analysis Batch: 222022

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.03604		mg/Kg		72	70 - 131
Ethylbenzene	0.0500	0.03785		mg/Kg		76	66 - 130
Toluene	0.0500	0.03700		mg/Kg		74	67 - 130
Xylenes, Total	0.100	0.07866		mg/Kg		79	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	75		61 - 130
Dibromofluoromethane	82		68 - 140
Toluene-d8 (Surr)	84		50 - 130
4-Bromofluorobenzene	93		57 - 140

Lab Sample ID: LCSD 600-222022/4

Matrix: Solid

Analysis Batch: 222022

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
Benzene	0.0500	0.04416		mg/Kg		88	70 - 131	20	30
Ethylbenzene	0.0500	0.04583		mg/Kg		92	66 - 130	19	30
Toluene	0.0500	0.04426		mg/Kg		89	67 - 130	18	30
Xylenes, Total	0.100	0.09107		mg/Kg		91	63 - 130	15	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	79		61 - 130
Dibromofluoromethane	80		68 - 140
Toluene-d8 (Surr)	86		50 - 130
4-Bromofluorobenzene	97		57 - 140

TestAmerica Houston

QC Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154335-1

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

Lab Sample ID: MB 600-222149/3-A

Matrix: Solid

Analysis Batch: 222154

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 222149

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0788	U	0.625	0.0788	mg/Kg		09/26/17 11:00	09/26/17 14:19	1
Ethylbenzene	0.128	U	0.625	0.128	mg/Kg		09/26/17 11:00	09/26/17 14:19	1
Toluene	0.173	U	0.625	0.173	mg/Kg		09/26/17 11:00	09/26/17 14:19	1
Xylenes, Total	0.141	U	0.625	0.141	mg/Kg		09/26/17 11:00	09/26/17 14:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	81		61 - 130	09/26/17 11:00	09/26/17 14:19	1
Dibromofluoromethane	84		68 - 140	09/26/17 11:00	09/26/17 14:19	1
Toluene-d8 (Surr)	100		50 - 130	09/26/17 11:00	09/26/17 14:19	1
4-Bromofluorobenzene	112		57 - 140	09/26/17 11:00	09/26/17 14:19	1

Lab Sample ID: LCS 600-222149/1-A

Matrix: Solid

Analysis Batch: 222154

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 222149

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.25	6.360		mg/Kg		102	70 - 131
Ethylbenzene	6.25	7.153		mg/Kg		114	66 - 130
Toluene	6.25	7.144		mg/Kg		114	67 - 130
Xylenes, Total	12.5	14.32		mg/Kg		115	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	76		61 - 130
Dibromofluoromethane	82		68 - 140
Toluene-d8 (Surr)	103		50 - 130
4-Bromofluorobenzene	106		57 - 140

Lab Sample ID: LCSD 600-222149/2-A

Matrix: Solid

Analysis Batch: 222154

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 222149

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	6.25	6.162		mg/Kg		99	70 - 131	3	30
Ethylbenzene	6.25	6.129		mg/Kg		98	66 - 130	15	30
Toluene	6.25	6.167		mg/Kg		99	67 - 130	15	30
Xylenes, Total	12.5	12.55		mg/Kg		100	63 - 130	13	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	85		61 - 130
Dibromofluoromethane	85		68 - 140
Toluene-d8 (Surr)	98		50 - 130
4-Bromofluorobenzene	103		57 - 140

TestAmerica Houston

QC Association Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154335-1

GC/MS VOA

Analysis Batch: 221983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154335-1	TB11-NFP-09212017	Total/NA	Water	8260B	
MB 600-221983/6	Method Blank	Total/NA	Water	8260B	
LCS 600-221983/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-221983/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 222022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154335-2	MW48-NFP-12-13-09212017	Total/NA	Solid	8260B	222041
600-154335-3	MW48-NFP-21-22-09212017	Total/NA	Solid	8260B	222041
600-154335-4	MW48-NFP-36-37-09212017	Total/NA	Solid	8260B	222041
600-154335-6	MW48-NFP-29-30-09212017	Total/NA	Solid	8260B	222041
MB 600-222022/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-222022/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-222022/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

Prep Batch: 222041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154335-2	MW48-NFP-12-13-09212017	Total/NA	Solid	5035_ASP	
600-154335-3	MW48-NFP-21-22-09212017	Total/NA	Solid	5035_ASP	
600-154335-4	MW48-NFP-36-37-09212017	Total/NA	Solid	5035_ASP	
600-154335-6	MW48-NFP-29-30-09212017	Total/NA	Solid	5035_ASP	

Prep Batch: 222149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 600-222149/3-A	Method Blank	Total/NA	Solid	5030B	
LCS 600-222149/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 600-222149/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	

Prep Batch: 222150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154335-5	MW48-NFP-39-40-09212017	Total/NA	Solid	5035	
600-154335-5 - DL	MW48-NFP-39-40-09212017	Total/NA	Solid	5035	

Analysis Batch: 222154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154335-5	MW48-NFP-39-40-09212017	Total/NA	Solid	8260B	222150
600-154335-5 - DL	MW48-NFP-39-40-09212017	Total/NA	Solid	8260B	222150
MB 600-222149/3-A	Method Blank	Total/NA	Solid	8260B	222149
LCS 600-222149/1-A	Lab Control Sample	Total/NA	Solid	8260B	222149
LCSD 600-222149/2-A	Lab Control Sample Dup	Total/NA	Solid	8260B	222149

General Chemistry

Analysis Batch: 222074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154335-2	MW48-NFP-12-13-09212017	Total/NA	Solid	2540B	
600-154335-3	MW48-NFP-21-22-09212017	Total/NA	Solid	2540B	
600-154335-4	MW48-NFP-36-37-09212017	Total/NA	Solid	2540B	
600-154335-5	MW48-NFP-39-40-09212017	Total/NA	Solid	2540B	
600-154335-6	MW48-NFP-29-30-09212017	Total/NA	Solid	2540B	

TestAmerica Houston

Lab Chronicle

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154335-1

Client Sample ID: TB11-NFP-09212017**Lab Sample ID: 600-154335-1**

Date Collected: 09/21/17 07:00

Matrix: Water

Date Received: 09/22/17 10:36

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	221983	09/23/17 14:57	KLV	TAL HOU

Client Sample ID: MW48-NFP-12-13-09212017**Lab Sample ID: 600-154335-2**

Date Collected: 09/21/17 07:30

Matrix: Solid

Date Received: 09/22/17 10:36

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			222074	09/25/17 16:12	B1K	TAL HOU

Client Sample ID: MW48-NFP-12-13-09212017**Lab Sample ID: 600-154335-2**

Date Collected: 09/21/17 07:30

Matrix: Solid

Date Received: 09/22/17 10:36

Percent Solids: 93.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.044 g	5 mL	222041	09/22/17 16:38	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	222022	09/25/17 16:29	WS1	TAL HOU

Client Sample ID: MW48-NFP-21-22-09212017**Lab Sample ID: 600-154335-3**

Date Collected: 09/21/17 07:45

Matrix: Solid

Date Received: 09/22/17 10:36

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			222074	09/25/17 16:12	B1K	TAL HOU

Client Sample ID: MW48-NFP-21-22-09212017**Lab Sample ID: 600-154335-3**

Date Collected: 09/21/17 07:45

Matrix: Solid

Date Received: 09/22/17 10:36

Percent Solids: 87.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.692 g	5 mL	222041	09/22/17 16:38	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	222022	09/25/17 16:54	WS1	TAL HOU

Client Sample ID: MW48-NFP-36-37-09212017**Lab Sample ID: 600-154335-4**

Date Collected: 09/21/17 10:30

Matrix: Solid

Date Received: 09/22/17 10:36

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			222074	09/25/17 16:12	B1K	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154335-1

Client Sample ID: MW48-NFP-36-37-09212017

Lab Sample ID: 600-154335-4

Date Collected: 09/21/17 10:30

Matrix: Solid

Date Received: 09/22/17 10:36

Percent Solids: 90.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			6.148 g	5 mL	222041	09/22/17 16:38	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	222022	09/25/17 18:56	WS1	TAL HOU

Client Sample ID: MW48-NFP-39-40-09212017

Lab Sample ID: 600-154335-5

Date Collected: 09/21/17 10:35

Matrix: Solid

Date Received: 09/22/17 10:36

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			222074	09/25/17 16:12	B1K	TAL HOU

Client Sample ID: MW48-NFP-39-40-09212017

Lab Sample ID: 600-154335-5

Date Collected: 09/21/17 10:35

Matrix: Solid

Date Received: 09/22/17 10:36

Percent Solids: 85.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.601 g	5 mL	222150	09/22/17 16:38	KLV	TAL HOU
Total/NA	Analysis	8260B		1	100 uL	5 mL	222154	09/26/17 16:37	KLV	TAL HOU
Total/NA	Prep	5035	DL		4.601 g	5 mL	222150	09/22/17 16:38	KLV	TAL HOU
Total/NA	Analysis	8260B	DL	5	100 uL	5 mL	222154	09/26/17 17:23	KLV	TAL HOU

Client Sample ID: MW48-NFP-29-30-09212017

Lab Sample ID: 600-154335-6

Date Collected: 09/21/17 11:00

Matrix: Solid

Date Received: 09/22/17 10:36

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			222074	09/25/17 16:12	B1K	TAL HOU

Client Sample ID: MW48-NFP-29-30-09212017

Lab Sample ID: 600-154335-6

Date Collected: 09/21/17 11:00

Matrix: Solid

Date Received: 09/22/17 10:36

Percent Solids: 90.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			6.593 g	5 mL	222041	09/22/17 16:38	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	222022	09/25/17 17:18	WS1	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TestAmerica Houston

Accreditation/Certification Summary

Client: CH2M Hill Constructors, Inc.

TestAmerica Job ID: 600-154335-1

Project/Site: Kinder Morgan Bloomfield, NM NFP

Laboratory: TestAmerica Houston

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
Arkansas DEQ	State Program	6	17-051-0	08-04-18
Louisiana	NELAP	6	01967	06-30-18
Oklahoma	State Program	6	2017-138	08-31-18
Texas	NELAP	6	T104704223-17-21	10-31-17
USDA	Federal		P330-17-00132	04-20-20

TestAmerica Houston

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information		Sampler: L.Hill		Lat. PM: Upton, Cathy L	Carrier Tracking No(s)	COC No: 600-36947-10949.1							
Company: Aleeca Forsberg		Phone: 205-240-3235	E-Mail: cathy.upton@testamericainc.com			Page 1 of 1							
Address: 3721 Rutledge Rd. NE Suite B-1		Due Date Requested:		Analysis Requested									
City: Albuquerque		TAT Requested (days):											
State, Zip: NM, 87109		10 BD Prelim; 14 BD Level3 Package (3e)											
Phone: 281-721-8546(Tel)		PO #: WD293112											
Email: Aleeca.Forsberg@CH2M.com		WO #:											
Project Name: Kinder Morgan Bloomfield, NM NFP		HOUSTON Project #:											
Site: BTEX Soils		SSOW#:											
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=ore, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SOILS	8260B, 5035 - BTEX (SHORT HOLD-48Hrs)	Percent Moisture	WATERS	8260B, LL - BTEX	Total Number of Containers	Special Instructions/Note:
TB11 - NFP - 09212017	9/21/17	0700	G	water	N	N							*** 48Hr Holding Time
MW48 - NFP - 12-13 - 09212017	9/21/17	0730	G	Soil	N	N							From Sample Collection
MW48 - NFP - 21-22 - 09212017	9/21/17	0745	G	Soil	N	N							
MW48 - NFP - 36-37 - 09212017	9/21/17	1030	G	Soil	N	N							PID > 100 ppm
MW48 - NFP - 39-40 - 09212017	9/21/17	1035	G	Soil	N	N							PID > 100 ppm
MW48 - NFP - 29-30 - 09212017	9/21/17	1100	G	Soil	N	N							PID > 100 ppm
			G	Soil									
			G	Soil									
			G	Soil									
			G	Soil									
			G	Water									

Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
☐ Non-Hazard	☐ Flammable	☐ Return To Client	☐ Disposal By Lab
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
☐ Poison B	☒ Unknown	☐ Archive For	Months

Empty Kit Relinquished by		Time	
Relinquished by	Date/Time	Relinquished by	Date/Time
L.Hill	9/21/17 1700	CH2M	
Relinquished by	Date/Time	Relinquished by	Date/Time
Relinquished by	Date/Time	Relinquished by	Date/Time

Custody Seal No.		Cooler Temperature(s) °C and Other Remarks	
Yes	No	Relinquished by	Date/Time
		CH2M	
		Relinquished by	Date/Time
		Relinquished by	Date/Time

TestAmerica Houston

Loc: 600
154335TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Recei

it

Date/Time Received: 17 SEP 22 10:36

JOB NUMBER: _____

CLIENT: CH2M

UNPACKED BY: SCCARRIER/DRIVER: FECustody Seal Present: ☒ YES ☐ NO

Number of Coolers Received: 1

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
RW	Y / N	Y / N	1.1	519	-3	0.8
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? ☒ YES ☐ NOLABORATORY PRESERVATION OF SAMPLES REQUIRED: ☐ NO ☐ YESBase samples are >pH 12: ☐ YES ☐ NO Acid preserved are <pH 2: ☐ YES ☐ NO

pH paper Lot # _____

VOA headspace acceptable (5-6mm): ☐ YES ☐ NO ☐ NA

YES NO

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?

COMMENTS:

Login Sample Receipt Checklist

Client: CH2M Hill Constructors, Inc.

Job Number: 600-154335-1

Login Number: 154335

List Source: TestAmerica Houston

List Number: 1

Creator: Crafton, Tommie S

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
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	0.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.



Environment Testing America

ANALYTICAL REPORT

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

Laboratory Job ID: 600-154372-1

Client Project/Site: Kinder Morgan Bloomfield, NM NFP
Revision: 1

For:

CH2M Hill Constructors, Inc.
14701 St. Mary's Lane
Suite 300
Houston, Texas 77079-2923

Attn: Mr. John Ynfante

Authorized for release by:

12/10/2020 10:30:53 AM

Steve Stepanski, Project Mgmt. Assistant
(713)690-4444

steve.stepanski@Eurofinset.com

Designee for

Cathy Upton, Project Manager I
(713)690-4444

cathy.upton@testamericainc.com

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

Laboratory Job ID: 600-154372-1

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Case Narrative

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

Job ID: 600-154372-1

Job ID: 600-154372-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-154372-1

Comments

This report was revised to a Level 2 deliverable per client's request.

Receipt

The samples were received on 9/23/2017 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.4° C.

GC/MS VOA

Method(s) 8260B: 600-154372-2 MS failed the recovery criteria for all analytes. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) met acceptance criteria.

Method(s) 8260B: 600-154372-2 MSD failed the RPD criteria for Ethylbenzene, Toluene and Xylenes, Total.

Method(s) 8260B: The following samples required a medium level dilution to bring the concentration of target analytes within the calibration range: SB03-NFP-28-30-09222017 (600-154372-5), SB03-NFP-33-34-09222017 (600-154372-6), SB03-NFP-36-37-09222017 (600-154372-7), SB03-NFP-40-42-09222017 (600-154372-8) and SB03-NFP-43-44-09222017 (600-154372-9). 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.

General Chemistry

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

Method Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154372-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
2540B	Percent Moisture	SM20	TAL HOU

Protocol References:

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: CH2M Hill Constructors, Inc.

TestAmerica Job ID: 600-154372-1

Project/Site: Kinder Morgan Bloomfield, NM NFP

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-154372-1	TB14-NFP-09222017	Water	09/22/17 07:00	09/23/17 09:20
600-154372-2	SB03-NFP-13-14-09222017	Solid	09/22/17 13:50	09/23/17 09:20
600-154372-3	SB03-NFP-20-21-09222017	Solid	09/22/17 14:10	09/23/17 09:20
600-154372-4	MD03-NFP-20-21-09222017	Solid	09/22/17 14:15	09/23/17 09:20
600-154372-5	SB03-NFP-28-30-09222017	Solid	09/22/17 14:20	09/23/17 09:20
600-154372-6	SB03-NFP-33-34-09222017	Solid	09/22/17 14:25	09/23/17 09:20
600-154372-7	SB03-NFP-36-37-09222017	Solid	09/22/17 14:30	09/23/17 09:20
600-154372-8	SB03-NFP-40-42-09222017	Solid	09/22/17 14:35	09/23/17 09:20
600-154372-9	SB03-NFP-43-44-09222017	Solid	09/22/17 14:40	09/23/17 09:20

TestAmerica Houston

Client Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154372-1

Client Sample ID: TB14-NFP-09222017

Lab Sample ID: 600-154372-1

Date Collected: 09/22/17 07:00

Matrix: Water

Date Received: 09/23/17 09:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			09/23/17 15:24	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			09/23/17 15:24	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			09/23/17 15:24	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			09/23/17 15:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		50 - 134		09/23/17 15:24	1
Dibromofluoromethane	104		62 - 130		09/23/17 15:24	1
Toluene-d8 (Surr)	93		70 - 130		09/23/17 15:24	1
4-Bromofluorobenzene	106		67 - 139		09/23/17 15:24	1

Client Sample ID: SB03-NFP-13-14-09222017

Lab Sample ID: 600-154372-2

Date Collected: 09/22/17 13:50

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 96.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000616	U F1	0.00489	0.000616	mg/Kg	✱	09/23/17 13:30	09/26/17 12:02	1
Ethylbenzene	0.000997	U F2 F1	0.00489	0.000997	mg/Kg	✱	09/23/17 13:30	09/26/17 12:02	1
Toluene	0.00135	U F2 F1	0.00489	0.00135	mg/Kg	✱	09/23/17 13:30	09/26/17 12:02	1
Xylenes, Total	0.00110	U F2 F1	0.00489	0.00110	mg/Kg	✱	09/23/17 13:30	09/26/17 12:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		61 - 130	09/23/17 13:30	09/26/17 12:02	1
Dibromofluoromethane	82		68 - 140	09/23/17 13:30	09/26/17 12:02	1
Toluene-d8 (Surr)	84		50 - 130	09/23/17 13:30	09/26/17 12:02	1
4-Bromofluorobenzene	95		57 - 140	09/23/17 13:30	09/26/17 12:02	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.9		1.0	1.0	%			09/25/17 16:06	1
Percent Solids	96.1		1.0	1.0	%			09/25/17 16:06	1

Client Sample ID: SB03-NFP-20-21-09222017

Lab Sample ID: 600-154372-3

Date Collected: 09/22/17 14:10

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 97.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000662	U	0.00526	0.000662	mg/Kg	✱	09/23/17 13:30	09/26/17 13:16	1
Ethylbenzene	0.00107	U	0.00526	0.00107	mg/Kg	✱	09/23/17 13:30	09/26/17 13:16	1
Toluene	0.00145	U	0.00526	0.00145	mg/Kg	✱	09/23/17 13:30	09/26/17 13:16	1
Xylenes, Total	0.00713		0.00526	0.00119	mg/Kg	✱	09/23/17 13:30	09/26/17 13:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		61 - 130	09/23/17 13:30	09/26/17 13:16	1
Dibromofluoromethane	76		68 - 140	09/23/17 13:30	09/26/17 13:16	1
Toluene-d8 (Surr)	83		50 - 130	09/23/17 13:30	09/26/17 13:16	1
4-Bromofluorobenzene	96		57 - 140	09/23/17 13:30	09/26/17 13:16	1

TestAmerica Houston

Client Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154372-1

Client Sample ID: SB03-NFP-20-21-09222017

Lab Sample ID: 600-154372-3

Date Collected: 09/22/17 14:10

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 97.3

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	2.7		1.0	1.0	%			09/25/17 16:06	1
Percent Solids	97.3		1.0	1.0	%			09/25/17 16:06	1

Client Sample ID: MD03-NFP-20-21-09222017

Lab Sample ID: 600-154372-4

Date Collected: 09/22/17 14:15

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 97.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000634	U	0.00503	0.000634	mg/Kg	☼	09/23/17 13:30	09/26/17 13:41	1
Ethylbenzene	0.00103	U	0.00503	0.00103	mg/Kg	☼	09/23/17 13:30	09/26/17 13:41	1
Toluene	0.00139	U	0.00503	0.00139	mg/Kg	☼	09/23/17 13:30	09/26/17 13:41	1
Xylenes, Total	0.00676		0.00503	0.00114	mg/Kg	☼	09/23/17 13:30	09/26/17 13:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		61 - 130	09/23/17 13:30	09/26/17 13:41	1
Dibromofluoromethane	83		68 - 140	09/23/17 13:30	09/26/17 13:41	1
Toluene-d8 (Surr)	84		50 - 130	09/23/17 13:30	09/26/17 13:41	1
4-Bromofluorobenzene	99		57 - 140	09/23/17 13:30	09/26/17 13:41	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	2.7		1.0	1.0	%			09/25/17 16:06	1
Percent Solids	97.3		1.0	1.0	%			09/25/17 16:06	1

Client Sample ID: SB03-NFP-28-30-09222017

Lab Sample ID: 600-154372-5

Date Collected: 09/22/17 14:20

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 91.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	5.73		1.20	0.151	mg/Kg	☼	09/23/17 13:30	09/26/17 20:04	5
Ethylbenzene	12.5		1.20	0.245	mg/Kg	☼	09/23/17 13:30	09/26/17 20:04	5
Toluene	11.4		1.20	0.331	mg/Kg	☼	09/23/17 13:30	09/26/17 20:04	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		61 - 130	09/23/17 13:30	09/26/17 20:04	5
Dibromofluoromethane	81		68 - 140	09/23/17 13:30	09/26/17 20:04	5
Toluene-d8 (Surr)	94		50 - 130	09/23/17 13:30	09/26/17 20:04	5
4-Bromofluorobenzene	112		57 - 140	09/23/17 13:30	09/26/17 20:04	5

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	182		12.0	2.71	mg/Kg	☼	09/23/17 13:30	09/26/17 20:26	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		61 - 130	09/23/17 13:30	09/26/17 20:26	50
Dibromofluoromethane	78		68 - 140	09/23/17 13:30	09/26/17 20:26	50
Toluene-d8 (Surr)	94		50 - 130	09/23/17 13:30	09/26/17 20:26	50
4-Bromofluorobenzene	108		57 - 140	09/23/17 13:30	09/26/17 20:26	50

TestAmerica Houston

Client Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154372-1

Client Sample ID: SB03-NFP-28-30-09222017

Lab Sample ID: 600-154372-5

Date Collected: 09/22/17 14:20

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 91.2

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.8		1.0	1.0	%			09/25/17 16:06	1
Percent Solids	91.2		1.0	1.0	%			09/25/17 16:06	1

Client Sample ID: SB03-NFP-33-34-09222017

Lab Sample ID: 600-154372-6

Date Collected: 09/22/17 14:25

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 91.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	5.59		2.50	0.314	mg/Kg	☼	09/23/17 13:30	09/26/17 20:49	10
Ethylbenzene	5.14		2.50	0.509	mg/Kg	☼	09/23/17 13:30	09/26/17 20:49	10
Toluene	66.8		2.50	0.689	mg/Kg	☼	09/23/17 13:30	09/26/17 20:49	10
Xylenes, Total	81.9		2.50	0.564	mg/Kg	☼	09/23/17 13:30	09/26/17 20:49	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	81		61 - 130	09/23/17 13:30	09/26/17 20:49	10
Dibromofluoromethane	75		68 - 140	09/23/17 13:30	09/26/17 20:49	10
Toluene-d8 (Surr)	96		50 - 130	09/23/17 13:30	09/26/17 20:49	10
4-Bromofluorobenzene	127		57 - 140	09/23/17 13:30	09/26/17 20:49	10

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.7		1.0	1.0	%			09/25/17 16:06	1
Percent Solids	91.3		1.0	1.0	%			09/25/17 16:06	1

Client Sample ID: SB03-NFP-36-37-09222017

Lab Sample ID: 600-154372-7

Date Collected: 09/22/17 14:30

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 87.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	61.8		2.40	0.303	mg/Kg	☼	09/23/17 13:30	09/26/17 21:12	10
Ethylbenzene	13.4		2.40	0.490	mg/Kg	☼	09/23/17 13:30	09/26/17 21:12	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		61 - 130	09/23/17 13:30	09/26/17 21:12	10
Dibromofluoromethane	80		68 - 140	09/23/17 13:30	09/26/17 21:12	10
Toluene-d8 (Surr)	100		50 - 130	09/23/17 13:30	09/26/17 21:12	10
4-Bromofluorobenzene	123		57 - 140	09/23/17 13:30	09/26/17 21:12	10

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	261		24.0	6.63	mg/Kg	☼	09/23/17 13:30	09/26/17 21:35	100
Xylenes, Total	216		24.0	5.43	mg/Kg	☼	09/23/17 13:30	09/26/17 21:35	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		61 - 130	09/23/17 13:30	09/26/17 21:35	100
Dibromofluoromethane	80		68 - 140	09/23/17 13:30	09/26/17 21:35	100
Toluene-d8 (Surr)	95		50 - 130	09/23/17 13:30	09/26/17 21:35	100
4-Bromofluorobenzene	117		57 - 140	09/23/17 13:30	09/26/17 21:35	100

TestAmerica Houston

Client Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154372-1

Client Sample ID: SB03-NFP-36-37-09222017

Lab Sample ID: 600-154372-7

Date Collected: 09/22/17 14:30

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 87.8

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12.2		1.0	1.0	%			09/25/17 16:06	1
Percent Solids	87.8		1.0	1.0	%			09/25/17 16:06	1

Client Sample ID: SB03-NFP-40-42-09222017

Lab Sample ID: 600-154372-8

Date Collected: 09/22/17 14:35

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 88.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	4.28		2.50	0.315	mg/Kg	☼	09/23/17 13:30	09/26/17 21:58	10
Ethylbenzene	4.16		2.50	0.511	mg/Kg	☼	09/23/17 13:30	09/26/17 21:58	10
Toluene	28.1		2.50	0.691	mg/Kg	☼	09/23/17 13:30	09/26/17 21:58	10
Xylenes, Total	60.6		2.50	0.566	mg/Kg	☼	09/23/17 13:30	09/26/17 21:58	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		61 - 130	09/23/17 13:30	09/26/17 21:58	10
Dibromofluoromethane	80		68 - 140	09/23/17 13:30	09/26/17 21:58	10
Toluene-d8 (Surr)	95		50 - 130	09/23/17 13:30	09/26/17 21:58	10
4-Bromofluorobenzene	120		57 - 140	09/23/17 13:30	09/26/17 21:58	10

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.7		1.0	1.0	%			09/25/17 16:06	1
Percent Solids	88.3		1.0	1.0	%			09/25/17 16:06	1

Client Sample ID: SB03-NFP-43-44-09222017

Lab Sample ID: 600-154372-9

Date Collected: 09/22/17 14:40

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 91.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	7.32		2.71	0.342	mg/Kg	☼	09/23/17 13:30	09/26/17 22:21	10
Ethylbenzene	4.88		2.71	0.554	mg/Kg	☼	09/23/17 13:30	09/26/17 22:21	10
Toluene	43.1		2.71	0.749	mg/Kg	☼	09/23/17 13:30	09/26/17 22:21	10
Xylenes, Total	76.8		2.71	0.613	mg/Kg	☼	09/23/17 13:30	09/26/17 22:21	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		61 - 130	09/23/17 13:30	09/26/17 22:21	10
Dibromofluoromethane	81		68 - 140	09/23/17 13:30	09/26/17 22:21	10
Toluene-d8 (Surr)	97		50 - 130	09/23/17 13:30	09/26/17 22:21	10
4-Bromofluorobenzene	127		57 - 140	09/23/17 13:30	09/26/17 22:21	10

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.8		1.0	1.0	%			09/25/17 16:06	1
Percent Solids	91.2		1.0	1.0	%			09/25/17 16:06	1

TestAmerica Houston

Definitions/Glossary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154372-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits

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)

Surrogate Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154372-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-154372-2	SB03-NFP-13-14-09222017	84	82	84	95
600-154372-2 MS	SB03-NFP-13-14-09222017	90	84	84	100
600-154372-2 MSD	SB03-NFP-13-14-09222017	89	88	87	98
600-154372-3	SB03-NFP-20-21-09222017	91	76	83	96
600-154372-4	MD03-NFP-20-21-09222017	84	83	84	99
600-154372-5	SB03-NFP-28-30-09222017	84	81	94	112
600-154372-5 - DL	SB03-NFP-28-30-09222017	85	78	94	108
600-154372-6	SB03-NFP-33-34-09222017	81	75	96	127
600-154372-7	SB03-NFP-36-37-09222017	88	80	100	123
600-154372-7 - DL	SB03-NFP-36-37-09222017	86	80	95	117
600-154372-8	SB03-NFP-40-42-09222017	83	80	95	120
600-154372-9	SB03-NFP-43-44-09222017	84	81	97	127
LCS 600-222109/3	Lab Control Sample	85	82	82	102
LCS 600-222149/1-A	Lab Control Sample	76	82	103	106
LCSD 600-222109/4	Lab Control Sample Dup	84	83	86	103
LCSD 600-222149/2-A	Lab Control Sample Dup	85	85	98	103
MB 600-222109/6	Method Blank	89	79	84	99
MB 600-222149/3-A	Method Blank	81	84	100	112

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (50-134)	DBFM (62-130)	TOL (70-130)	BFB (67-139)
600-154372-1	TB14-NFP-09222017	119	104	93	106
LCS 600-221983/3	Lab Control Sample	117	108	92	110
LCSD 600-221983/4	Lab Control Sample Dup	107	106	92	110
MB 600-221983/6	Method Blank	112	102	93	105

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

TestAmerica Houston

QC Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154372-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-221983/6

Matrix: Water

Analysis Batch: 221983

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			09/23/17 14:30	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			09/23/17 14:30	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			09/23/17 14:30	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			09/23/17 14:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		50 - 134		09/23/17 14:30	1
Dibromofluoromethane	102		62 - 130		09/23/17 14:30	1
Toluene-d8 (Surr)	93		70 - 130		09/23/17 14:30	1
4-Bromofluorobenzene	105		67 - 139		09/23/17 14:30	1

Lab Sample ID: LCS 600-221983/3

Matrix: Water

Analysis Batch: 221983

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.01028		mg/L		103	70 - 130
Ethylbenzene	0.0100	0.009859		mg/L		99	70 - 130
Toluene	0.0100	0.009376		mg/L		94	70 - 130
Xylenes, Total	0.0200	0.02010		mg/L		101	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	117		50 - 134
Dibromofluoromethane	108		62 - 130
Toluene-d8 (Surr)	92		70 - 130
4-Bromofluorobenzene	110		67 - 139

Lab Sample ID: LCSD 600-221983/4

Matrix: Water

Analysis Batch: 221983

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
Benzene	0.0100	0.009481		mg/L		95	70 - 130	8	20
Ethylbenzene	0.0100	0.009138		mg/L		91	70 - 130	8	20
Toluene	0.0100	0.008610		mg/L		86	70 - 130	9	20
Xylenes, Total	0.0200	0.01852		mg/L		93	70 - 130	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		50 - 134
Dibromofluoromethane	106		62 - 130
Toluene-d8 (Surr)	92		70 - 130
4-Bromofluorobenzene	110		67 - 139

TestAmerica Houston

QC Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154372-1

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

Lab Sample ID: 600-154372-2 MS

Matrix: Solid

Analysis Batch: 222109

Client Sample ID: SB03-NFP-13-14-09222017

Prep Type: Total/NA

Prep Batch: 222042

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.000616	U F1	0.0500	0.03151	F1	mg/Kg	☼	63	70 - 131
Ethylbenzene	0.000997	U F2 F1	0.0500	0.03079	F1	mg/Kg	☼	62	66 - 130
Toluene	0.00135	U F2 F1	0.0500	0.03019	F1	mg/Kg	☼	60	67 - 130
Xylenes, Total	0.00110	U F2 F1	0.0999	0.06149	F1	mg/Kg	☼	62	63 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	90		61 - 130
Dibromofluoromethane	84		68 - 140
Toluene-d8 (Surr)	84		50 - 130
4-Bromofluorobenzene	100		57 - 140

Lab Sample ID: 600-154372-2 MSD

Matrix: Solid

Analysis Batch: 222109

Client Sample ID: SB03-NFP-13-14-09222017

Prep Type: Total/NA

Prep Batch: 222042

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.000616	U F1	0.0484	0.04193		mg/Kg	☼	87	70 - 131	28	30
Ethylbenzene	0.000997	U F2 F1	0.0484	0.04226	F2	mg/Kg	☼	87	66 - 130	31	30
Toluene	0.00135	U F2 F1	0.0484	0.04134	F2	mg/Kg	☼	85	67 - 130	31	30
Xylenes, Total	0.00110	U F2 F1	0.0968	0.08435	F2	mg/Kg	☼	87	63 - 130	31	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	89		61 - 130
Dibromofluoromethane	88		68 - 140
Toluene-d8 (Surr)	87		50 - 130
4-Bromofluorobenzene	98		57 - 140

Lab Sample ID: MB 600-222109/6

Matrix: Solid

Analysis Batch: 222109

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			09/26/17 10:49	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			09/26/17 10:49	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			09/26/17 10:49	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			09/26/17 10:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		61 - 130		09/26/17 10:49	1
Dibromofluoromethane	79		68 - 140		09/26/17 10:49	1
Toluene-d8 (Surr)	84		50 - 130		09/26/17 10:49	1
4-Bromofluorobenzene	99		57 - 140		09/26/17 10:49	1

TestAmerica Houston

QC Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154372-1

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

Lab Sample ID: LCS 600-222109/3

Matrix: Solid

Analysis Batch: 222109

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.04944		mg/Kg		99	70 - 131
Ethylbenzene	0.0500	0.04813		mg/Kg		96	66 - 130
Toluene	0.0500	0.04734		mg/Kg		95	67 - 130
Xylenes, Total	0.100	0.09440		mg/Kg		94	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	85		61 - 130
Dibromofluoromethane	82		68 - 140
Toluene-d8 (Surr)	82		50 - 130
4-Bromofluorobenzene	102		57 - 140

Lab Sample ID: LCSD 600-222109/4

Matrix: Solid

Analysis Batch: 222109

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
Benzene	0.0500	0.04582		mg/Kg		92	70 - 131	8	30
Ethylbenzene	0.0500	0.04413		mg/Kg		88	66 - 130	9	30
Toluene	0.0500	0.04438		mg/Kg		89	67 - 130	6	30
Xylenes, Total	0.100	0.08770		mg/Kg		88	63 - 130	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	84		61 - 130
Dibromofluoromethane	83		68 - 140
Toluene-d8 (Surr)	86		50 - 130
4-Bromofluorobenzene	103		57 - 140

Lab Sample ID: MB 600-222149/3-A

Matrix: Solid

Analysis Batch: 222154

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 222149

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0788	U	0.625	0.0788	mg/Kg		09/26/17 11:00	09/26/17 14:19	1
Ethylbenzene	0.128	U	0.625	0.128	mg/Kg		09/26/17 11:00	09/26/17 14:19	1
Toluene	0.173	U	0.625	0.173	mg/Kg		09/26/17 11:00	09/26/17 14:19	1
Xylenes, Total	0.141	U	0.625	0.141	mg/Kg		09/26/17 11:00	09/26/17 14:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	81		61 - 130	09/26/17 11:00	09/26/17 14:19	1
Dibromofluoromethane	84		68 - 140	09/26/17 11:00	09/26/17 14:19	1
Toluene-d8 (Surr)	100		50 - 130	09/26/17 11:00	09/26/17 14:19	1
4-Bromofluorobenzene	112		57 - 140	09/26/17 11:00	09/26/17 14:19	1

TestAmerica Houston

QC Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154372-1

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

Lab Sample ID: LCS 600-222149/1-A

Matrix: Solid

Analysis Batch: 222154

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 222149

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.25	6.360		mg/Kg		102	70 - 131
Ethylbenzene	6.25	7.153		mg/Kg		114	66 - 130
Toluene	6.25	7.144		mg/Kg		114	67 - 130
Xylenes, Total	12.5	14.32		mg/Kg		115	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	76		61 - 130
Dibromofluoromethane	82		68 - 140
Toluene-d8 (Surr)	103		50 - 130
4-Bromofluorobenzene	106		57 - 140

Lab Sample ID: LCSD 600-222149/2-A

Matrix: Solid

Analysis Batch: 222154

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 222149

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	6.25	6.162		mg/Kg		99	70 - 131	3	30
Ethylbenzene	6.25	6.129		mg/Kg		98	66 - 130	15	30
Toluene	6.25	6.167		mg/Kg		99	67 - 130	15	30
Xylenes, Total	12.5	12.55		mg/Kg		100	63 - 130	13	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	85		61 - 130
Dibromofluoromethane	85		68 - 140
Toluene-d8 (Surr)	98		50 - 130
4-Bromofluorobenzene	103		57 - 140

Method: 2540B - Percent Moisture

Lab Sample ID: 600-154372-3 DU

Matrix: Solid

Analysis Batch: 222074

Client Sample ID: SB03-NFP-20-21-09222017

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	2.7		2.2		%		19	20
Percent Solids	97.3		97.8		%		0.5	20

TestAmerica Houston

QC Association Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154372-1

GC/MS VOA

Analysis Batch: 221983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154372-1	TB14-NFP-09222017	Total/NA	Water	8260B	
MB 600-221983/6	Method Blank	Total/NA	Water	8260B	
LCS 600-221983/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-221983/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Prep Batch: 222042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154372-2	SB03-NFP-13-14-09222017	Total/NA	Solid	5035_ASP	
600-154372-3	SB03-NFP-20-21-09222017	Total/NA	Solid	5035_ASP	
600-154372-4	MD03-NFP-20-21-09222017	Total/NA	Solid	5035_ASP	
600-154372-2 MS	SB03-NFP-13-14-09222017	Total/NA	Solid	5035_ASP	
600-154372-2 MSD	SB03-NFP-13-14-09222017	Total/NA	Solid	5035_ASP	

Analysis Batch: 222109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154372-2	SB03-NFP-13-14-09222017	Total/NA	Solid	8260B	222042
600-154372-3	SB03-NFP-20-21-09222017	Total/NA	Solid	8260B	222042
600-154372-4	MD03-NFP-20-21-09222017	Total/NA	Solid	8260B	222042
MB 600-222109/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-222109/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-222109/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
600-154372-2 MS	SB03-NFP-13-14-09222017	Total/NA	Solid	8260B	222042
600-154372-2 MSD	SB03-NFP-13-14-09222017	Total/NA	Solid	8260B	222042

Prep Batch: 222149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 600-222149/3-A	Method Blank	Total/NA	Solid	5030B	
LCS 600-222149/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 600-222149/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	

Prep Batch: 222151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154372-5	SB03-NFP-28-30-09222017	Total/NA	Solid	5035	
600-154372-5 - DL	SB03-NFP-28-30-09222017	Total/NA	Solid	5035	
600-154372-6	SB03-NFP-33-34-09222017	Total/NA	Solid	5035	
600-154372-7 - DL	SB03-NFP-36-37-09222017	Total/NA	Solid	5035	
600-154372-7	SB03-NFP-36-37-09222017	Total/NA	Solid	5035	
600-154372-8	SB03-NFP-40-42-09222017	Total/NA	Solid	5035	
600-154372-9	SB03-NFP-43-44-09222017	Total/NA	Solid	5035	

Analysis Batch: 222154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154372-5	SB03-NFP-28-30-09222017	Total/NA	Solid	8260B	222151
600-154372-5 - DL	SB03-NFP-28-30-09222017	Total/NA	Solid	8260B	222151
600-154372-6	SB03-NFP-33-34-09222017	Total/NA	Solid	8260B	222151
600-154372-7	SB03-NFP-36-37-09222017	Total/NA	Solid	8260B	222151
600-154372-7 - DL	SB03-NFP-36-37-09222017	Total/NA	Solid	8260B	222151
600-154372-8	SB03-NFP-40-42-09222017	Total/NA	Solid	8260B	222151
600-154372-9	SB03-NFP-43-44-09222017	Total/NA	Solid	8260B	222151
MB 600-222149/3-A	Method Blank	Total/NA	Solid	8260B	222149
LCS 600-222149/1-A	Lab Control Sample	Total/NA	Solid	8260B	222149

TestAmerica Houston

QC Association Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154372-1

GC/MS VOA (Continued)

Analysis Batch: 222154 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 600-222149/2-A	Lab Control Sample Dup	Total/NA	Solid	8260B	222149

General Chemistry

Analysis Batch: 222074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154372-2	SB03-NFP-13-14-09222017	Total/NA	Solid	2540B	
600-154372-3	SB03-NFP-20-21-09222017	Total/NA	Solid	2540B	
600-154372-4	MD03-NFP-20-21-09222017	Total/NA	Solid	2540B	
600-154372-5	SB03-NFP-28-30-09222017	Total/NA	Solid	2540B	
600-154372-6	SB03-NFP-33-34-09222017	Total/NA	Solid	2540B	
600-154372-7	SB03-NFP-36-37-09222017	Total/NA	Solid	2540B	
600-154372-8	SB03-NFP-40-42-09222017	Total/NA	Solid	2540B	
600-154372-9	SB03-NFP-43-44-09222017	Total/NA	Solid	2540B	
600-154372-2 MS	SB03-NFP-13-14-09222017	Total/NA	Solid	2540B	
600-154372-2 MSD	SB03-NFP-13-14-09222017	Total/NA	Solid	2540B	
600-154372-3 DU	SB03-NFP-20-21-09222017	Total/NA	Solid	2540B	

TestAmerica Houston

Lab Chronicle

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154372-1

Client Sample ID: TB14-NFP-09222017

Date Collected: 09/22/17 07:00

Date Received: 09/23/17 09:20

Lab Sample ID: 600-154372-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	221983	09/23/17 15:24	KLV	TAL HOU

Client Sample ID: SB03-NFP-13-14-09222017

Date Collected: 09/22/17 13:50

Date Received: 09/23/17 09:20

Lab Sample ID: 600-154372-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			222074	09/25/17 16:06	B1K	TAL HOU

Client Sample ID: SB03-NFP-13-14-09222017

Date Collected: 09/22/17 13:50

Date Received: 09/23/17 09:20

Lab Sample ID: 600-154372-2

Matrix: Solid

Percent Solids: 96.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.327 g	5 mL	222042	09/23/17 13:30	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	222109	09/26/17 12:02	WS1	TAL HOU

Client Sample ID: SB03-NFP-20-21-09222017

Date Collected: 09/22/17 14:10

Date Received: 09/23/17 09:20

Lab Sample ID: 600-154372-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			222074	09/25/17 16:06	B1K	TAL HOU

Client Sample ID: SB03-NFP-20-21-09222017

Date Collected: 09/22/17 14:10

Date Received: 09/23/17 09:20

Lab Sample ID: 600-154372-3

Matrix: Solid

Percent Solids: 97.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			4.89 g	5 mL	222042	09/23/17 13:30	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	222109	09/26/17 13:16	WS1	TAL HOU

Client Sample ID: MD03-NFP-20-21-09222017

Date Collected: 09/22/17 14:15

Date Received: 09/23/17 09:20

Lab Sample ID: 600-154372-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			222074	09/25/17 16:06	B1K	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154372-1

Client Sample ID: MD03-NFP-20-21-09222017

Lab Sample ID: 600-154372-4

Date Collected: 09/22/17 14:15

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 97.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.106 g	5 mL	222042	09/23/17 13:30	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	222109	09/26/17 13:41	WS1	TAL HOU

Client Sample ID: SB03-NFP-28-30-09222017

Lab Sample ID: 600-154372-5

Date Collected: 09/22/17 14:20

Matrix: Solid

Date Received: 09/23/17 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			222074	09/25/17 16:06	B1K	TAL HOU

Client Sample ID: SB03-NFP-28-30-09222017

Lab Sample ID: 600-154372-5

Date Collected: 09/22/17 14:20

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 91.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.716 g	5 mL	222151	09/23/17 13:30	KLV	TAL HOU
Total/NA	Analysis	8260B		5	100 uL	5 mL	222154	09/26/17 20:04	KLV	TAL HOU
Total/NA	Prep	5035	DL		5.716 g	5 mL	222151	09/23/17 13:30	KLV	TAL HOU
Total/NA	Analysis	8260B	DL	50	100 uL	5 mL	222154	09/26/17 20:26	KLV	TAL HOU

Client Sample ID: SB03-NFP-33-34-09222017

Lab Sample ID: 600-154372-6

Date Collected: 09/22/17 14:25

Matrix: Solid

Date Received: 09/23/17 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			222074	09/25/17 16:06	B1K	TAL HOU

Client Sample ID: SB03-NFP-33-34-09222017

Lab Sample ID: 600-154372-6

Date Collected: 09/22/17 14:25

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 91.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.487 g	5 mL	222151	09/23/17 13:30	KLV	TAL HOU
Total/NA	Analysis	8260B		10	100 uL	5 mL	222154	09/26/17 20:49	KLV	TAL HOU

Client Sample ID: SB03-NFP-36-37-09222017

Lab Sample ID: 600-154372-7

Date Collected: 09/22/17 14:30

Matrix: Solid

Date Received: 09/23/17 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			222074	09/25/17 16:06	B1K	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154372-1

Client Sample ID: SB03-NFP-36-37-09222017

Lab Sample ID: 600-154372-7

Date Collected: 09/22/17 14:30

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 87.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.928 g	5 mL	222151	09/23/17 13:30	KLV	TAL HOU
Total/NA	Analysis	8260B		10	100 uL	5 mL	222154	09/26/17 21:12	KLV	TAL HOU
Total/NA	Prep	5035	DL		5.928 g	5 mL	222151	09/23/17 13:30	KLV	TAL HOU
Total/NA	Analysis	8260B	DL	100	100 uL	5 mL	222154	09/26/17 21:35	KLV	TAL HOU

Client Sample ID: SB03-NFP-40-42-09222017

Lab Sample ID: 600-154372-8

Date Collected: 09/22/17 14:35

Matrix: Solid

Date Received: 09/23/17 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			222074	09/25/17 16:06	B1K	TAL HOU

Client Sample ID: SB03-NFP-40-42-09222017

Lab Sample ID: 600-154372-8

Date Collected: 09/22/17 14:35

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 88.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.657 g	5 mL	222151	09/23/17 13:30	KLV	TAL HOU
Total/NA	Analysis	8260B		10	100 uL	5 mL	222154	09/26/17 21:58	KLV	TAL HOU

Client Sample ID: SB03-NFP-43-44-09222017

Lab Sample ID: 600-154372-9

Date Collected: 09/22/17 14:40

Matrix: Solid

Date Received: 09/23/17 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			222074	09/25/17 16:06	B1K	TAL HOU

Client Sample ID: SB03-NFP-43-44-09222017

Lab Sample ID: 600-154372-9

Date Collected: 09/22/17 14:40

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 91.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.053 g	5 mL	222151	09/23/17 13:30	KLV	TAL HOU
Total/NA	Analysis	8260B		10	100 uL	5 mL	222154	09/26/17 22:21	KLV	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TestAmerica Houston

Accreditation/Certification Summary

Client: CH2M Hill Constructors, Inc.

TestAmerica Job ID: 600-154372-1

Project/Site: Kinder Morgan Bloomfield, NM NFP

Laboratory: TestAmerica Houston

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
Arkansas DEQ	State Program	6	17-051-0	08-04-18
Louisiana	NELAP	6	01967	06-30-18
Oklahoma	State Program	6	2017-138	08-31-18
Texas	NELAP	6	T104704223-17-21	10-31-17
USDA	Federal		P330-17-00132	04-20-20

TestAmerica Houston

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

TestAmerica
10000 E. 15th Street, Suite 100
Houston, TX 77060

Client Information		Lab PM: Upion, Cathy L		Carrier Tracking No(s): 600-36947-10949.1	
Client Contact: Aleeca Forsberg		E-Mail: cathy.upion@testamericainc.com		Page 1 of 1	
Company: CH2M Hill, Inc.		Address: 3721 Rutledge Rd. NE, Suite B-1		Job #:	
City: Albuquerque		State, Zip: NM, 87109		Due Date Requested:	
Phone: 281-721-8546(Tel)		TAT Requested (days): 10 BD Prelim; 14 BD Level3 Package (3e)		Analysis Requested	
Email: Aleeca.Forsberg@CH2M.com		PO #: WD293112		Field Filtered Sample (Yes or No)	
Project Name: Kinder Morgan Bloomfield, NM NFP		WO #: 60004617		Perform MS/MSD (Yes or No)	
Site: BTEX Soils		SSOW#:		Percent Moisture	
				SOILS	
				WATERS	
				8260B, 5035 - BTEX (SHORT HOLD-48Hrs)	
				8260B, LL - BTEX	
				Total Number of Containers	
				Special Instructions/Note:	
				*** 48Hr Holding Time	
				From Sample Collection	
				PID > 100 ppm	
				PID > 100 ppm	
				PID > 100 ppm	
				PID > 100 ppm	
				PID > 100 ppm	
				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
				Return To Client ☒ Disposal By Lab ☐ Archive For ☐ Months	
				Special Instructions/QC Requirements:	
				Method of Shipment:	
				Time	
				Date/Time	
				Date/Time	
				Date/Time	
				Cooler Temperature(s) °C and Other Remarks	
				3.7 CF-3 3.4 (0.519)	

TestAmerica Houston

Loc: 600
154372TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Receipt Ct

JOB NUMBER: _____

Date/Time Received: _____

17 SEP 23 9:20

UNPACKED BY: _____

CLIENT: CH2MCARRIER/DRIVER: FB SealCustody Seal Present: ☒ YES ☐ NONumber of Coolers Received: 1

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
<u>BW</u>	Y / N	Y / N	<u>3.7</u>	<u>519</u>	<u>-3</u>	<u>3.4</u>
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? ☒ YES ☐ NOLABORATORY PRESERVATION OF SAMPLES REQUIRED: ☒ NO ☐ YESBase samples are >pH 12: ☐ YES ☐ NOAcid preserved are <pH 2: ☐ YES ☐ NO

pH paper Lot # _____

VOA headspace acceptable (5-6mm): ☒ YES ☐ NO ☐ NA

YES NO

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?

COMMENTS:

Login Sample Receipt Checklist

Client: CH2M Hill Constructors, Inc.

Job Number: 600-154372-1

Login Number: 154372

List Source: TestAmerica Houston

List Number: 1

Creator: Crafton, Tommie S

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
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	3.4°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.



Environment Testing America

ANALYTICAL REPORT

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

Laboratory Job ID: 600-154374-1

Client Project/Site: Kinder Morgan Bloomfield, NM NFP
Revision: 1

For:

CH2M Hill Constructors, Inc.
14701 St. Mary's Lane
Suite 300
Houston, Texas 77079-2923

Attn: Mr. John Ynfante

Authorized for release by:

12/10/2020 10:32:37 AM

Steve Stepanski, Project Mgmt. Assistant
(713)690-4444

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Designee for

Cathy Upton, Project Manager I
(713)690-4444

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LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

Laboratory Job ID: 600-154374-1

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Case Narrative

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

Job ID: 600-154374-1

Job ID: 600-154374-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-154374-1

Comments

This report was revised to a Level 2 deliverable per client's request.

Receipt

The samples were received on 9/23/2017 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.6° C.

GC/MS VOA

Method(s) 8260B: Surrogate recovery for the following sample was outside control limits: SB01-NFP-19-21-09222017 (600-154374-3[MSD]). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8260B: The sample size used in the preparation of the matrix spike/matrix spike duplicate (MS/MSD) associated with 222044 was outside the 10% difference. As the relative percent difference (RPD) calculation is based upon the MS/MSD concentration as opposed to the MS/MSD percent recovery, elevated %RPD values were obtained.

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

General Chemistry

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

Method Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154374-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
2540B	Percent Moisture	SM20	TAL HOU

Protocol References:

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: CH2M Hill Constructors, Inc.

TestAmerica Job ID: 600-154374-1

Project/Site: Kinder Morgan Bloomfield, NM NFP

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-154374-1	TB12-NFP-09222017	Water	09/22/17 07:00	09/23/17 09:20
600-154374-2	SB01-NFP-12-13-09222017	Solid	09/22/17 09:20	09/23/17 09:20
600-154374-3	SB01-NFP-19-21-09222017	Solid	09/22/17 09:40	09/23/17 09:20
600-154374-4	SB01-NFP-31-32-09222017	Solid	09/22/17 09:50	09/23/17 09:20
600-154374-5	SB01-NFP-38-39-09222017	Solid	09/22/17 10:20	09/23/17 09:20

Client Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154374-1

Client Sample ID: TB12-NFP-09222017

Lab Sample ID: 600-154374-1

Date Collected: 09/22/17 07:00

Matrix: Water

Date Received: 09/23/17 09:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			09/23/17 15:50	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			09/23/17 15:50	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			09/23/17 15:50	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			09/23/17 15:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		50 - 134		09/23/17 15:50	1
Dibromofluoromethane	104		62 - 130		09/23/17 15:50	1
Toluene-d8 (Surr)	91		70 - 130		09/23/17 15:50	1
4-Bromofluorobenzene	103		67 - 139		09/23/17 15:50	1

Client Sample ID: SB01-NFP-12-13-09222017

Lab Sample ID: 600-154374-2

Date Collected: 09/22/17 09:20

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 92.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000588	U	0.00467	0.000588	mg/Kg	✱	09/23/17 13:30	09/25/17 15:15	1
Ethylbenzene	0.000952	U	0.00467	0.000952	mg/Kg	✱	09/23/17 13:30	09/25/17 15:15	1
Toluene	0.00129	U	0.00467	0.00129	mg/Kg	✱	09/23/17 13:30	09/25/17 15:15	1
Xylenes, Total	0.00106	U	0.00467	0.00106	mg/Kg	✱	09/23/17 13:30	09/25/17 15:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		61 - 130	09/23/17 13:30	09/25/17 15:15	1
Dibromofluoromethane	81		68 - 140	09/23/17 13:30	09/25/17 15:15	1
Toluene-d8 (Surr)	78		50 - 130	09/23/17 13:30	09/25/17 15:15	1
4-Bromofluorobenzene	87		57 - 140	09/23/17 13:30	09/25/17 15:15	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.6		1.0	1.0	%			09/25/17 16:06	1
Percent Solids	92.4		1.0	1.0	%			09/25/17 16:06	1

Client Sample ID: SB01-NFP-19-21-09222017

Lab Sample ID: 600-154374-3

Date Collected: 09/22/17 09:40

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 87.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000712	U	0.00565	0.000712	mg/Kg	✱	09/23/17 13:30	09/25/17 13:37	1
Ethylbenzene	0.00115	U F2	0.00565	0.00115	mg/Kg	✱	09/23/17 13:30	09/25/17 13:37	1
Toluene	0.00156	U	0.00565	0.00156	mg/Kg	✱	09/23/17 13:30	09/25/17 13:37	1
Xylenes, Total	0.00265	J F2	0.00565	0.00128	mg/Kg	✱	09/23/17 13:30	09/25/17 13:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77		61 - 130	09/23/17 13:30	09/25/17 13:37	1
Dibromofluoromethane	77		68 - 140	09/23/17 13:30	09/25/17 13:37	1
Toluene-d8 (Surr)	79		50 - 130	09/23/17 13:30	09/25/17 13:37	1
4-Bromofluorobenzene	87		57 - 140	09/23/17 13:30	09/25/17 13:37	1

TestAmerica Houston

Client Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154374-1

Client Sample ID: SB01-NFP-19-21-09222017

Lab Sample ID: 600-154374-3

Date Collected: 09/22/17 09:40

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 87.5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12.5		1.0	1.0	%			09/25/17 16:06	1
Percent Solids	87.5		1.0	1.0	%			09/25/17 16:06	1

Client Sample ID: SB01-NFP-31-32-09222017

Lab Sample ID: 600-154374-4

Date Collected: 09/22/17 09:50

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 90.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000592	U	0.00470	0.000592	mg/Kg	☼	09/23/17 13:30	09/25/17 15:40	1
Ethylbenzene	0.000958	U	0.00470	0.000958	mg/Kg	☼	09/23/17 13:30	09/25/17 15:40	1
Toluene	0.00130	U	0.00470	0.00130	mg/Kg	☼	09/23/17 13:30	09/25/17 15:40	1
Xylenes, Total	0.00106	U	0.00470	0.00106	mg/Kg	☼	09/23/17 13:30	09/25/17 15:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		61 - 130	09/23/17 13:30	09/25/17 15:40	1
Dibromofluoromethane	84		68 - 140	09/23/17 13:30	09/25/17 15:40	1
Toluene-d8 (Surr)	77		50 - 130	09/23/17 13:30	09/25/17 15:40	1
4-Bromofluorobenzene	88		57 - 140	09/23/17 13:30	09/25/17 15:40	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.4		1.0	1.0	%			09/25/17 16:06	1
Percent Solids	90.6		1.0	1.0	%			09/25/17 16:06	1

Client Sample ID: SB01-NFP-38-39-09222017

Lab Sample ID: 600-154374-5

Date Collected: 09/22/17 10:20

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 86.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000527	U	0.00419	0.000527	mg/Kg	☼	09/23/17 13:30	09/25/17 16:04	1
Ethylbenzene	0.000854	U	0.00419	0.000854	mg/Kg	☼	09/23/17 13:30	09/25/17 16:04	1
Toluene	0.00116	U	0.00419	0.00116	mg/Kg	☼	09/23/17 13:30	09/25/17 16:04	1
Xylenes, Total	0.000946	U	0.00419	0.000946	mg/Kg	☼	09/23/17 13:30	09/25/17 16:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		61 - 130	09/23/17 13:30	09/25/17 16:04	1
Dibromofluoromethane	79		68 - 140	09/23/17 13:30	09/25/17 16:04	1
Toluene-d8 (Surr)	80		50 - 130	09/23/17 13:30	09/25/17 16:04	1
4-Bromofluorobenzene	93		57 - 140	09/23/17 13:30	09/25/17 16:04	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.4		1.0	1.0	%			09/25/17 16:06	1
Percent Solids	86.6		1.0	1.0	%			09/25/17 16:06	1

TestAmerica Houston

Definitions/Glossary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154374-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits
F4	MS/MSD RPD exceeds control limits due to sample size difference.

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)

Surrogate Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154374-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-154374-2	SB01-NFP-12-13-09222017	86	81	78	87
600-154374-3	SB01-NFP-19-21-09222017	77	77	79	87
600-154374-3 MS	SB01-NFP-19-21-09222017	82	77	83	94
600-154374-3 MSD	SB01-NFP-19-21-09222017	83	67 X	84	94
600-154374-4	SB01-NFP-31-32-09222017	88	84	77	88
600-154374-5	SB01-NFP-38-39-09222017	87	79	80	93
LCS 600-222022/3	Lab Control Sample	75	82	84	93
LCSD 600-222022/4	Lab Control Sample Dup	79	80	86	97
MB 600-222022/6	Method Blank	82	77	79	92

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (50-134)	DBFM (62-130)	TOL (70-130)	BFB (67-139)
600-154374-1	TB12-NFP-09222017	112	104	91	103
LCS 600-221983/3	Lab Control Sample	117	108	92	110
LCSD 600-221983/4	Lab Control Sample Dup	107	106	92	110
MB 600-221983/6	Method Blank	112	102	93	105

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

TestAmerica Houston

QC Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154374-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-221983/6

Matrix: Water

Analysis Batch: 221983

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			09/23/17 14:30	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			09/23/17 14:30	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			09/23/17 14:30	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			09/23/17 14:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		50 - 134		09/23/17 14:30	1
Dibromofluoromethane	102		62 - 130		09/23/17 14:30	1
Toluene-d8 (Surr)	93		70 - 130		09/23/17 14:30	1
4-Bromofluorobenzene	105		67 - 139		09/23/17 14:30	1

Lab Sample ID: LCS 600-221983/3

Matrix: Water

Analysis Batch: 221983

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.01028		mg/L		103	70 - 130
Ethylbenzene	0.0100	0.009859		mg/L		99	70 - 130
Toluene	0.0100	0.009376		mg/L		94	70 - 130
Xylenes, Total	0.0200	0.02010		mg/L		101	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	117		50 - 134
Dibromofluoromethane	108		62 - 130
Toluene-d8 (Surr)	92		70 - 130
4-Bromofluorobenzene	110		67 - 139

Lab Sample ID: LCSD 600-221983/4

Matrix: Water

Analysis Batch: 221983

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
Benzene	0.0100	0.009481		mg/L		95	70 - 130	8	20
Ethylbenzene	0.0100	0.009138		mg/L		91	70 - 130	8	20
Toluene	0.0100	0.008610		mg/L		86	70 - 130	9	20
Xylenes, Total	0.0200	0.01852		mg/L		93	70 - 130	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		50 - 134
Dibromofluoromethane	106		62 - 130
Toluene-d8 (Surr)	92		70 - 130
4-Bromofluorobenzene	110		67 - 139

TestAmerica Houston

QC Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154374-1

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

Lab Sample ID: MB 600-222022/6

Matrix: Solid

Analysis Batch: 222022

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			09/25/17 09:52	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			09/25/17 09:52	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			09/25/17 09:52	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			09/25/17 09:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		61 - 130		09/25/17 09:52	1
Dibromofluoromethane	77		68 - 140		09/25/17 09:52	1
Toluene-d8 (Surr)	79		50 - 130		09/25/17 09:52	1
4-Bromofluorobenzene	92		57 - 140		09/25/17 09:52	1

Lab Sample ID: LCS 600-222022/3

Matrix: Solid

Analysis Batch: 222022

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.03604		mg/Kg		72	70 - 131
Ethylbenzene	0.0500	0.03785		mg/Kg		76	66 - 130
Toluene	0.0500	0.03700		mg/Kg		74	67 - 130
Xylenes, Total	0.100	0.07866		mg/Kg		79	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	75		61 - 130
Dibromofluoromethane	82		68 - 140
Toluene-d8 (Surr)	84		50 - 130
4-Bromofluorobenzene	93		57 - 140

Lab Sample ID: LCSD 600-222022/4

Matrix: Solid

Analysis Batch: 222022

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
Benzene	0.0500	0.04416		mg/Kg		88	70 - 131	20	30
Ethylbenzene	0.0500	0.04583		mg/Kg		92	66 - 130	19	30
Toluene	0.0500	0.04426		mg/Kg		89	67 - 130	18	30
Xylenes, Total	0.100	0.09107		mg/Kg		91	63 - 130	15	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	79		61 - 130
Dibromofluoromethane	80		68 - 140
Toluene-d8 (Surr)	86		50 - 130
4-Bromofluorobenzene	97		57 - 140

TestAmerica Houston

QC Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154374-1

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

Lab Sample ID: 600-154374-3 MS

Matrix: Solid

Analysis Batch: 222022

Client Sample ID: SB01-NFP-19-21-09222017

Prep Type: Total/NA

Prep Batch: 222044

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Benzene	0.000712	U	0.0506	0.04066		mg/Kg	☼	80	70 - 131
Ethylbenzene	0.00115	U F2	0.0506	0.04758		mg/Kg	☼	94	66 - 130
Toluene	0.00156	U	0.0506	0.04303		mg/Kg	☼	85	67 - 130
Xylenes, Total	0.00265	J F2	0.101	0.1037		mg/Kg	☼	100	63 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	82		61 - 130
Dibromofluoromethane	77		68 - 140
Toluene-d8 (Surr)	83		50 - 130
4-Bromofluorobenzene	94		57 - 140

Lab Sample ID: 600-154374-3 MSD

Matrix: Solid

Analysis Batch: 222022

Client Sample ID: SB01-NFP-19-21-09222017

Prep Type: Total/NA

Prep Batch: 222044

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.000712	U	0.0437	0.03190		mg/Kg	☼	73	70 - 131	24	30
Ethylbenzene	0.00115	U F2	0.0437	0.03461	F4	mg/Kg	☼	79	66 - 130	32	30
Toluene	0.00156	U	0.0437	0.03257		mg/Kg	☼	75	67 - 130	28	30
Xylenes, Total	0.00265	J F2	0.0874	0.06796	F4	mg/Kg	☼	75	63 - 130	42	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	83		61 - 130
Dibromofluoromethane	67	X	68 - 140
Toluene-d8 (Surr)	84		50 - 130
4-Bromofluorobenzene	94		57 - 140

Method: 2540B - Percent Moisture

Lab Sample ID: 600-154374-2 DU

Matrix: Solid

Analysis Batch: 222074

Client Sample ID: SB01-NFP-12-13-09222017

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Percent Moisture	7.6		7.5		%		0.8	20
Percent Solids	92.4		92.5		%		0.06	20

TestAmerica Houston

QC Association Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154374-1

GC/MS VOA

Analysis Batch: 221983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154374-1	TB12-NFP-09222017	Total/NA	Water	8260B	
MB 600-221983/6	Method Blank	Total/NA	Water	8260B	
LCS 600-221983/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-221983/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 222022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154374-2	SB01-NFP-12-13-09222017	Total/NA	Solid	8260B	222044
600-154374-3	SB01-NFP-19-21-09222017	Total/NA	Solid	8260B	222044
600-154374-4	SB01-NFP-31-32-09222017	Total/NA	Solid	8260B	222044
600-154374-5	SB01-NFP-38-39-09222017	Total/NA	Solid	8260B	222044
MB 600-222022/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-222022/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-222022/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
600-154374-3 MS	SB01-NFP-19-21-09222017	Total/NA	Solid	8260B	222044
600-154374-3 MSD	SB01-NFP-19-21-09222017	Total/NA	Solid	8260B	222044

Prep Batch: 222044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154374-2	SB01-NFP-12-13-09222017	Total/NA	Solid	5035_ASP	
600-154374-3	SB01-NFP-19-21-09222017	Total/NA	Solid	5035_ASP	
600-154374-4	SB01-NFP-31-32-09222017	Total/NA	Solid	5035_ASP	
600-154374-5	SB01-NFP-38-39-09222017	Total/NA	Solid	5035_ASP	
600-154374-3 MS	SB01-NFP-19-21-09222017	Total/NA	Solid	5035_ASP	
600-154374-3 MSD	SB01-NFP-19-21-09222017	Total/NA	Solid	5035_ASP	

General Chemistry

Analysis Batch: 222074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154374-2	SB01-NFP-12-13-09222017	Total/NA	Solid	2540B	
600-154374-3	SB01-NFP-19-21-09222017	Total/NA	Solid	2540B	
600-154374-4	SB01-NFP-31-32-09222017	Total/NA	Solid	2540B	
600-154374-5	SB01-NFP-38-39-09222017	Total/NA	Solid	2540B	
600-154374-3 MS	SB01-NFP-19-21-09222017	Total/NA	Solid	2540B	
600-154374-3 MSD	SB01-NFP-19-21-09222017	Total/NA	Solid	2540B	
600-154374-2 DU	SB01-NFP-12-13-09222017	Total/NA	Solid	2540B	

TestAmerica Houston

Lab Chronicle

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154374-1

Client Sample ID: TB12-NFP-09222017

Date Collected: 09/22/17 07:00

Date Received: 09/23/17 09:20

Lab Sample ID: 600-154374-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	221983	09/23/17 15:50	KLV	TAL HOU

Client Sample ID: SB01-NFP-12-13-09222017

Date Collected: 09/22/17 09:20

Date Received: 09/23/17 09:20

Lab Sample ID: 600-154374-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			222074	09/25/17 16:06	B1K	TAL HOU

Client Sample ID: SB01-NFP-12-13-09222017

Date Collected: 09/22/17 09:20

Date Received: 09/23/17 09:20

Lab Sample ID: 600-154374-2

Matrix: Solid

Percent Solids: 92.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.795 g	5 mL	222044	09/23/17 13:30	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	222022	09/25/17 15:15	WS1	TAL HOU

Client Sample ID: SB01-NFP-19-21-09222017

Date Collected: 09/22/17 09:40

Date Received: 09/23/17 09:20

Lab Sample ID: 600-154374-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			222074	09/25/17 16:06	B1K	TAL HOU

Client Sample ID: SB01-NFP-19-21-09222017

Date Collected: 09/22/17 09:40

Date Received: 09/23/17 09:20

Lab Sample ID: 600-154374-3

Matrix: Solid

Percent Solids: 87.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.054 g	5 mL	222044	09/23/17 13:30	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	222022	09/25/17 13:37	WS1	TAL HOU

Client Sample ID: SB01-NFP-31-32-09222017

Date Collected: 09/22/17 09:50

Date Received: 09/23/17 09:20

Lab Sample ID: 600-154374-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			222074	09/25/17 16:06	B1K	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154374-1

Client Sample ID: SB01-NFP-31-32-09222017

Lab Sample ID: 600-154374-4

Date Collected: 09/22/17 09:50

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 90.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.875 g	5 mL	222044	09/23/17 13:30	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	222022	09/25/17 15:40	WS1	TAL HOU

Client Sample ID: SB01-NFP-38-39-09222017

Lab Sample ID: 600-154374-5

Date Collected: 09/22/17 10:20

Matrix: Solid

Date Received: 09/23/17 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			222074	09/25/17 16:06	B1K	TAL HOU

Client Sample ID: SB01-NFP-38-39-09222017

Lab Sample ID: 600-154374-5

Date Collected: 09/22/17 10:20

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 86.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			6.896 g	5 mL	222044	09/23/17 13:30	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	222022	09/25/17 16:04	WS1	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TestAmerica Houston

Accreditation/Certification Summary

Client: CH2M Hill Constructors, Inc.

TestAmerica Job ID: 600-154374-1

Project/Site: Kinder Morgan Bloomfield, NM NFP

Laboratory: TestAmerica Houston

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
Arkansas DEQ	State Program	6	17-051-0	08-04-18
Louisiana	NELAP	6	01967	06-30-18
Oklahoma	State Program	6	2017-138	08-31-18
Texas	NELAP	6	T104704223-17-21	10-31-17
USDA	Federal		P330-17-00132	04-20-20

TestAmerica Houston

TestAmerica Houston
55310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-4445

Chain of Custody Record

TestAmerica

[illegible]

Client Information Client Contact: Aleeca Forsberg Company: CH2M Hill, Inc. Address: 3721 Rutledge Rd. NE Suite B-1 City: Albuquerque State: NM, Zip: 87109 Phone: 281-721-8546 (Tel) Email: Aleeca.Forsberg@CH2M.com Project Name: Kinder Morgan Bloomfield, NM NFP Site: BTEX Soils		Sampler: L.H.I.I. Lab PM: Upton, Cathy L. Phone: 205-240-3235 E-Mail: cathy.upton@testamericainc.com		Carrier Tracking No(s): 600-36947-10949 1 Page: Page 1 of 1 Job #:																																																																																																																									
Due Date Requested: TAT Requested (days): 10 BD Prelim, 14 BD Level3 Package (3e) PO #: WD293112 WO #: HOUSTON Project # 60004617 SSOW#:		Analysis Requested SOILS 8260B_5035 - BTEX (SHORT HOLD-48Hrs) Percent Moisture Field Filtered Sample (Yes or No) WATERS 8260B_LL - BTEX																																																																																																																											
Sample Identification		Special Instructions/Note: *** 48Hr Holding Time From Sample Collection																																																																																																																											
TB12 - NFP - 09222017 SB01 - NFP - 12-13 - 09222017 SB01 - NFP - 19-21 - 09222017 SB01 - NFP - 19-21 - 09222017 M6 SB01 - NFP - 19-21 - 09222017 M50 SB01 - NFP - 31-32 - 09222017 SB01 - NFP - 38-39 - 09222017		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=grab)</th> <th>Matrix (W=water, S=solid, O=soil, A=air)</th> <th>Preservation Code</th> <th>Field Filtered Sample (Yes or No)</th> <th>Perform MS/MSD (Yes or No)</th> <th>SOILS</th> <th>WATERS</th> <th>Percent Moisture</th> </tr> <tr> <td>9/22/17</td> <td>0700</td> <td>G</td> <td>water</td> <td></td> <td>N</td> <td>N</td> <td></td> <td></td> <td></td> </tr> <tr> <td>9/22/17</td> <td>0920</td> <td>G</td> <td>Soil</td> <td></td> <td>N</td> <td>N</td> <td></td> <td></td> <td></td> </tr> <tr> <td>9/22/17</td> <td>0940</td> <td>G</td> <td>Soil</td> <td></td> <td>N</td> <td>N</td> <td></td> <td></td> <td></td> </tr> <tr> <td>9/22/17</td> <td>0940</td> <td>G</td> <td>Soil</td> <td></td> <td>N</td> <td>N</td> <td></td> <td></td> <td></td> </tr> <tr> <td>9/22/17</td> <td>0940</td> <td>G</td> <td>Soil</td> <td></td> <td>N</td> <td>N</td> <td></td> <td></td> <td></td> </tr> <tr> <td>9/22/17</td> <td>0950</td> <td>G</td> <td>Soil</td> <td></td> <td>N</td> <td>N</td> <td></td> <td></td> <td></td> </tr> <tr> <td>9/22/17</td> <td>1020</td> <td>G</td> <td>Soil</td> <td></td> <td>N</td> <td>N</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>G</td> <td>Soil</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>G</td> <td>Soil</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>G</td> <td>Soil</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>G</td> <td>Water</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>				Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, A=air)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SOILS	WATERS	Percent Moisture	9/22/17	0700	G	water		N	N				9/22/17	0920	G	Soil		N	N				9/22/17	0940	G	Soil		N	N				9/22/17	0940	G	Soil		N	N				9/22/17	0940	G	Soil		N	N				9/22/17	0950	G	Soil		N	N				9/22/17	1020	G	Soil		N	N						G	Soil									G	Soil									G	Soil									G	Water						
Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, A=air)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SOILS	WATERS	Percent Moisture																																																																																																																				
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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:																																																																																																																											
Empty Kit Relinquished by		Method of Shipment																																																																																																																											
Relinquished by: L.H.I.I. Relinquished by:		Received by: [Signature] Received by:																																																																																																																											
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Custody Seals Intact: ☒ Yes ☐ No		Custody Seal No.:																																																																																																																											

TestAmerica Houston

Loc: 600
154374

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sample

Checklist

JOB NUMBER: _____

Date/Time Received: _____

CLIENT: _____

17 SEP 23 9:20

UNPACKED BY: _____

CARRIER/DRIVER: _____

Custody Seal Present:

☒ YES☐ NO

Number of Coolers Received: _____

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
BW	Y / N	Y / N	2.1	549	-3	2.6
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice?

☒ YES☐ NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED:

☒ NO☐ YES

Base samples are > pH 12:

☐ YES☐ NO

Acid preserved are < pH 2:

☐ YES☐ NO

pH paper Lot # _____

VOA headspace acceptable (5-6mm):

☒ YES☐ NO☒ NA

YES NO

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?

☐☐

COMMENTS:

Login Sample Receipt Checklist

Client: CH2M Hill Constructors, Inc.

Job Number: 600-154374-1

Login Number: 154374

List Source: TestAmerica Houston

List Number: 1

Creator: Crafton, Tommie S

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
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	2.6°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.



Environment Testing America

ANALYTICAL REPORT

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

Laboratory Job ID: 600-154375-1

Client Project/Site: Kinder Morgan Bloomfield, NM NFP
Revision: 1

For:

CH2M Hill Constructors, Inc.
14701 St. Mary's Lane
Suite 300
Houston, Texas 77079-2923

Attn: Mr. John Ynfante

Authorized for release by:

12/10/2020 10:34:09 AM

Steve Stepanski, Project Mgmt. Assistant
(713)690-4444

steve.stepanski@Eurofinset.com

Designee for

Cathy Upton, Project Manager I
(713)690-4444

cathy.upton@testamericainc.com

LINKS

Review your project
results through

TotalAccess

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

Laboratory Job ID: 600-154375-1

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Case Narrative

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

Job ID: 600-154375-1

Job ID: 600-154375-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-154375-1

Comments

This report was revised to a Level 2 deliverable per client's request.

Receipt

The samples were received on 9/23/2017 9:20 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.

GC/MS VOA

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

General Chemistry

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

Method Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154375-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
2540B	Percent Moisture	SM20	TAL HOU

Protocol References:

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154375-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-154375-1	TB13-NFP-09222017	Water	09/22/17 07:00	09/23/17 09:20
600-154375-2	SB02-NFP-12-14-09222017	Solid	09/22/17 11:10	09/23/17 09:20
600-154375-3	MD02-NFP-12-14-09222017	Solid	09/22/17 11:15	09/23/17 09:20
600-154375-4	SB02-NFP-20-21-09222017	Solid	09/22/17 11:25	09/23/17 09:20
600-154375-5	SB02-NFP-28-30-09222017	Solid	09/22/17 11:40	09/23/17 09:20
600-154375-6	SB02-NFP-39-40-09222017	Solid	09/22/17 11:45	09/23/17 09:20

TestAmerica Houston

Client Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154375-1

Client Sample ID: TB13-NFP-09222017

Lab Sample ID: 600-154375-1

Date Collected: 09/22/17 07:00

Matrix: Water

Date Received: 09/23/17 09:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			09/23/17 16:17	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			09/23/17 16:17	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			09/23/17 16:17	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			09/23/17 16:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		50 - 134		09/23/17 16:17	1
Dibromofluoromethane	106		62 - 130		09/23/17 16:17	1
Toluene-d8 (Surr)	93		70 - 130		09/23/17 16:17	1
4-Bromofluorobenzene	106		67 - 139		09/23/17 16:17	1

Client Sample ID: SB02-NFP-12-14-09222017

Lab Sample ID: 600-154375-2

Date Collected: 09/22/17 11:10

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 96.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000618	U	0.00490	0.000618	mg/Kg	✱	09/23/17 13:30	09/25/17 17:43	1
Ethylbenzene	0.00100	U	0.00490	0.00100	mg/Kg	✱	09/23/17 13:30	09/25/17 17:43	1
Toluene	0.00135	U	0.00490	0.00135	mg/Kg	✱	09/23/17 13:30	09/25/17 17:43	1
Xylenes, Total	0.00111	U	0.00490	0.00111	mg/Kg	✱	09/23/17 13:30	09/25/17 17:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		61 - 130	09/23/17 13:30	09/25/17 17:43	1
Dibromofluoromethane	75		68 - 140	09/23/17 13:30	09/25/17 17:43	1
Toluene-d8 (Surr)	78		50 - 130	09/23/17 13:30	09/25/17 17:43	1
4-Bromofluorobenzene	96		57 - 140	09/23/17 13:30	09/25/17 17:43	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.7		1.0	1.0	%			09/25/17 16:06	1
Percent Solids	96.3		1.0	1.0	%			09/25/17 16:06	1

Client Sample ID: MD02-NFP-12-14-09222017

Lab Sample ID: 600-154375-3

Date Collected: 09/22/17 11:15

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 96.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000595	U	0.00472	0.000595	mg/Kg	✱	09/23/17 13:30	09/25/17 18:07	1
Ethylbenzene	0.000963	U	0.00472	0.000963	mg/Kg	✱	09/23/17 13:30	09/25/17 18:07	1
Toluene	0.00130	U	0.00472	0.00130	mg/Kg	✱	09/23/17 13:30	09/25/17 18:07	1
Xylenes, Total	0.00107	U	0.00472	0.00107	mg/Kg	✱	09/23/17 13:30	09/25/17 18:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		61 - 130	09/23/17 13:30	09/25/17 18:07	1
Dibromofluoromethane	79		68 - 140	09/23/17 13:30	09/25/17 18:07	1
Toluene-d8 (Surr)	77		50 - 130	09/23/17 13:30	09/25/17 18:07	1
4-Bromofluorobenzene	92		57 - 140	09/23/17 13:30	09/25/17 18:07	1

TestAmerica Houston

Client Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154375-1

Client Sample ID: MD02-NFP-12-14-09222017

Lab Sample ID: 600-154375-3

Date Collected: 09/22/17 11:15

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 96.9

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.1		1.0	1.0	%			09/25/17 16:06	1
Percent Solids	96.9		1.0	1.0	%			09/25/17 16:06	1

Client Sample ID: SB02-NFP-20-21-09222017

Lab Sample ID: 600-154375-4

Date Collected: 09/22/17 11:25

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 94.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000616	U	0.00489	0.000616	mg/Kg	☼	09/23/17 13:30	09/25/17 18:32	1
Ethylbenzene	0.000997	U	0.00489	0.000997	mg/Kg	☼	09/23/17 13:30	09/25/17 18:32	1
Toluene	0.00135	U	0.00489	0.00135	mg/Kg	☼	09/23/17 13:30	09/25/17 18:32	1
Xylenes, Total	0.00110	U	0.00489	0.00110	mg/Kg	☼	09/23/17 13:30	09/25/17 18:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		61 - 130	09/23/17 13:30	09/25/17 18:32	1
Dibromofluoromethane	79		68 - 140	09/23/17 13:30	09/25/17 18:32	1
Toluene-d8 (Surr)	77		50 - 130	09/23/17 13:30	09/25/17 18:32	1
4-Bromofluorobenzene	96		57 - 140	09/23/17 13:30	09/25/17 18:32	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.7		1.0	1.0	%			09/25/17 16:06	1
Percent Solids	94.3		1.0	1.0	%			09/25/17 16:06	1

Client Sample ID: SB02-NFP-28-30-09222017

Lab Sample ID: 600-154375-5

Date Collected: 09/22/17 11:40

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 84.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0930		0.00518	0.000653	mg/Kg	☼	09/23/17 13:30	09/26/17 11:13	1
Ethylbenzene	0.0440		0.00518	0.00106	mg/Kg	☼	09/23/17 13:30	09/26/17 11:13	1
Toluene	0.00143	U	0.00518	0.00143	mg/Kg	☼	09/23/17 13:30	09/26/17 11:13	1
Xylenes, Total	0.117		0.00518	0.00117	mg/Kg	☼	09/23/17 13:30	09/26/17 11:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		61 - 130	09/23/17 13:30	09/26/17 11:13	1
Dibromofluoromethane	92		68 - 140	09/23/17 13:30	09/26/17 11:13	1
Toluene-d8 (Surr)	86		50 - 130	09/23/17 13:30	09/26/17 11:13	1
4-Bromofluorobenzene	100		57 - 140	09/23/17 13:30	09/26/17 11:13	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.7		1.0	1.0	%			09/25/17 16:06	1
Percent Solids	84.3		1.0	1.0	%			09/25/17 16:06	1

TestAmerica Houston

Client Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154375-1

Client Sample ID: SB02-NFP-39-40-09222017

Lab Sample ID: 600-154375-6

Date Collected: 09/22/17 11:45

Matrix: Solid

Date Received: 09/23/17 09:20

Percent Solids: 92.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00229	J	0.00456	0.000575	mg/Kg	☼	09/23/17 13:30	09/26/17 11:38	1
Ethylbenzene	0.000931	U	0.00456	0.000931	mg/Kg	☼	09/23/17 13:30	09/26/17 11:38	1
Toluene	0.0102		0.00456	0.00126	mg/Kg	☼	09/23/17 13:30	09/26/17 11:38	1
Xylenes, Total	0.00425	J	0.00456	0.00103	mg/Kg	☼	09/23/17 13:30	09/26/17 11:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		61 - 130	09/23/17 13:30	09/26/17 11:38	1
Dibromofluoromethane	86		68 - 140	09/23/17 13:30	09/26/17 11:38	1
Toluene-d8 (Surr)	83		50 - 130	09/23/17 13:30	09/26/17 11:38	1
4-Bromofluorobenzene	97		57 - 140	09/23/17 13:30	09/26/17 11:38	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.7		1.0	1.0	%			09/25/17 16:12	1
Percent Solids	92.3		1.0	1.0	%			09/25/17 16:12	1

TestAmerica Houston

Definitions/Glossary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154375-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
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)

Surrogate Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154375-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-154375-2	SB02-NFP-12-14-09222017	85	75	78	96
600-154375-3	MD02-NFP-12-14-09222017	86	79	77	92
600-154375-4	SB02-NFP-20-21-09222017	82	79	77	96
600-154375-5	SB02-NFP-28-30-09222017	101	92	86	100
600-154375-6	SB02-NFP-39-40-09222017	94	86	83	97
LCS 600-222022/3	Lab Control Sample	75	82	84	93
LCS 600-222109/3	Lab Control Sample	85	82	82	102
LCSD 600-222022/4	Lab Control Sample Dup	79	80	86	97
LCSD 600-222109/4	Lab Control Sample Dup	84	83	86	103
MB 600-222022/6	Method Blank	82	77	79	92
MB 600-222109/6	Method Blank	89	79	84	99

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (50-134)	DBFM (62-130)	TOL (70-130)	BFB (67-139)
600-154375-1	TB13-NFP-09222017	119	106	93	106
LCS 600-221983/3	Lab Control Sample	117	108	92	110
LCSD 600-221983/4	Lab Control Sample Dup	107	106	92	110
MB 600-221983/6	Method Blank	112	102	93	105

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

TestAmerica Houston

QC Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154375-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-221983/6

Matrix: Water

Analysis Batch: 221983

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			09/23/17 14:30	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			09/23/17 14:30	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			09/23/17 14:30	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			09/23/17 14:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		50 - 134		09/23/17 14:30	1
Dibromofluoromethane	102		62 - 130		09/23/17 14:30	1
Toluene-d8 (Surr)	93		70 - 130		09/23/17 14:30	1
4-Bromofluorobenzene	105		67 - 139		09/23/17 14:30	1

Lab Sample ID: LCS 600-221983/3

Matrix: Water

Analysis Batch: 221983

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.01028		mg/L		103	70 - 130
Ethylbenzene	0.0100	0.009859		mg/L		99	70 - 130
Toluene	0.0100	0.009376		mg/L		94	70 - 130
Xylenes, Total	0.0200	0.02010		mg/L		101	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	117		50 - 134
Dibromofluoromethane	108		62 - 130
Toluene-d8 (Surr)	92		70 - 130
4-Bromofluorobenzene	110		67 - 139

Lab Sample ID: LCSD 600-221983/4

Matrix: Water

Analysis Batch: 221983

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
Benzene	0.0100	0.009481		mg/L		95	70 - 130	8	20
Ethylbenzene	0.0100	0.009138		mg/L		91	70 - 130	8	20
Toluene	0.0100	0.008610		mg/L		86	70 - 130	9	20
Xylenes, Total	0.0200	0.01852		mg/L		93	70 - 130	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		50 - 134
Dibromofluoromethane	106		62 - 130
Toluene-d8 (Surr)	92		70 - 130
4-Bromofluorobenzene	110		67 - 139

TestAmerica Houston

QC Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154375-1

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

Lab Sample ID: MB 600-222022/6

Matrix: Solid

Analysis Batch: 222022

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			09/25/17 09:52	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			09/25/17 09:52	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			09/25/17 09:52	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			09/25/17 09:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		61 - 130		09/25/17 09:52	1
Dibromofluoromethane	77		68 - 140		09/25/17 09:52	1
Toluene-d8 (Surr)	79		50 - 130		09/25/17 09:52	1
4-Bromofluorobenzene	92		57 - 140		09/25/17 09:52	1

Lab Sample ID: LCS 600-222022/3

Matrix: Solid

Analysis Batch: 222022

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.03604		mg/Kg		72	70 - 131
Ethylbenzene	0.0500	0.03785		mg/Kg		76	66 - 130
Toluene	0.0500	0.03700		mg/Kg		74	67 - 130
Xylenes, Total	0.100	0.07866		mg/Kg		79	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	75		61 - 130
Dibromofluoromethane	82		68 - 140
Toluene-d8 (Surr)	84		50 - 130
4-Bromofluorobenzene	93		57 - 140

Lab Sample ID: LCSD 600-222022/4

Matrix: Solid

Analysis Batch: 222022

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
Benzene	0.0500	0.04416		mg/Kg		88	70 - 131	20	30
Ethylbenzene	0.0500	0.04583		mg/Kg		92	66 - 130	19	30
Toluene	0.0500	0.04426		mg/Kg		89	67 - 130	18	30
Xylenes, Total	0.100	0.09107		mg/Kg		91	63 - 130	15	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	79		61 - 130
Dibromofluoromethane	80		68 - 140
Toluene-d8 (Surr)	86		50 - 130
4-Bromofluorobenzene	97		57 - 140

TestAmerica Houston

QC Sample Results

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154375-1

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

Lab Sample ID: MB 600-222109/6

Matrix: Solid

Analysis Batch: 222109

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			09/26/17 10:49	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			09/26/17 10:49	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			09/26/17 10:49	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			09/26/17 10:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		61 - 130		09/26/17 10:49	1
Dibromofluoromethane	79		68 - 140		09/26/17 10:49	1
Toluene-d8 (Surr)	84		50 - 130		09/26/17 10:49	1
4-Bromofluorobenzene	99		57 - 140		09/26/17 10:49	1

Lab Sample ID: LCS 600-222109/3

Matrix: Solid

Analysis Batch: 222109

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.04944		mg/Kg		99	70 - 131
Ethylbenzene	0.0500	0.04813		mg/Kg		96	66 - 130
Toluene	0.0500	0.04734		mg/Kg		95	67 - 130
Xylenes, Total	0.100	0.09440		mg/Kg		94	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	85		61 - 130
Dibromofluoromethane	82		68 - 140
Toluene-d8 (Surr)	82		50 - 130
4-Bromofluorobenzene	102		57 - 140

Lab Sample ID: LCSD 600-222109/4

Matrix: Solid

Analysis Batch: 222109

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
Benzene	0.0500	0.04582		mg/Kg		92	70 - 131	8	30
Ethylbenzene	0.0500	0.04413		mg/Kg		88	66 - 130	9	30
Toluene	0.0500	0.04438		mg/Kg		89	67 - 130	6	30
Xylenes, Total	0.100	0.08770		mg/Kg		88	63 - 130	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	84		61 - 130
Dibromofluoromethane	83		68 - 140
Toluene-d8 (Surr)	86		50 - 130
4-Bromofluorobenzene	103		57 - 140

TestAmerica Houston

QC Association Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154375-1

GC/MS VOA

Analysis Batch: 221983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154375-1	TB13-NFP-09222017	Total/NA	Water	8260B	
MB 600-221983/6	Method Blank	Total/NA	Water	8260B	
LCS 600-221983/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-221983/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 222022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154375-2	SB02-NFP-12-14-09222017	Total/NA	Solid	8260B	222043
600-154375-3	MD02-NFP-12-14-09222017	Total/NA	Solid	8260B	222043
600-154375-4	SB02-NFP-20-21-09222017	Total/NA	Solid	8260B	222043
MB 600-222022/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-222022/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-222022/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

Prep Batch: 222043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154375-2	SB02-NFP-12-14-09222017	Total/NA	Solid	5035_ASP	
600-154375-3	MD02-NFP-12-14-09222017	Total/NA	Solid	5035_ASP	
600-154375-4	SB02-NFP-20-21-09222017	Total/NA	Solid	5035_ASP	
600-154375-5	SB02-NFP-28-30-09222017	Total/NA	Solid	5035_ASP	
600-154375-6	SB02-NFP-39-40-09222017	Total/NA	Solid	5035_ASP	

Analysis Batch: 222109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154375-5	SB02-NFP-28-30-09222017	Total/NA	Solid	8260B	222043
600-154375-6	SB02-NFP-39-40-09222017	Total/NA	Solid	8260B	222043
MB 600-222109/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-222109/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-222109/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

General Chemistry

Analysis Batch: 222074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-154375-2	SB02-NFP-12-14-09222017	Total/NA	Solid	2540B	
600-154375-3	MD02-NFP-12-14-09222017	Total/NA	Solid	2540B	
600-154375-4	SB02-NFP-20-21-09222017	Total/NA	Solid	2540B	
600-154375-5	SB02-NFP-28-30-09222017	Total/NA	Solid	2540B	
600-154375-6	SB02-NFP-39-40-09222017	Total/NA	Solid	2540B	

TestAmerica Houston

Lab Chronicle

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154375-1

Client Sample ID: TB13-NFP-09222017**Date Collected: 09/22/17 07:00****Date Received: 09/23/17 09:20****Lab Sample ID: 600-154375-1****Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	221983	09/23/17 16:17	KLV	TAL HOU

Client Sample ID: SB02-NFP-12-14-09222017**Date Collected: 09/22/17 11:10****Date Received: 09/23/17 09:20****Lab Sample ID: 600-154375-2****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			222074	09/25/17 16:06	B1K	TAL HOU

Client Sample ID: SB02-NFP-12-14-09222017**Date Collected: 09/22/17 11:10****Date Received: 09/23/17 09:20****Lab Sample ID: 600-154375-2****Matrix: Solid****Percent Solids: 96.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.295 g	5 mL	222043	09/23/17 13:30	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	222022	09/25/17 17:43	WS1	TAL HOU

Client Sample ID: MD02-NFP-12-14-09222017**Date Collected: 09/22/17 11:15****Date Received: 09/23/17 09:20****Lab Sample ID: 600-154375-3****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			222074	09/25/17 16:06	B1K	TAL HOU

Client Sample ID: MD02-NFP-12-14-09222017**Date Collected: 09/22/17 11:15****Date Received: 09/23/17 09:20****Lab Sample ID: 600-154375-3****Matrix: Solid****Percent Solids: 96.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.466 g	5 mL	222043	09/23/17 13:30	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	222022	09/25/17 18:07	WS1	TAL HOU

Client Sample ID: SB02-NFP-20-21-09222017**Date Collected: 09/22/17 11:25****Date Received: 09/23/17 09:20****Lab Sample ID: 600-154375-4****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			222074	09/25/17 16:06	B1K	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: CH2M Hill Constructors, Inc.
Project/Site: Kinder Morgan Bloomfield, NM NFP

TestAmerica Job ID: 600-154375-1

Client Sample ID: SB02-NFP-20-21-09222017**Lab Sample ID: 600-154375-4****Date Collected: 09/22/17 11:25****Matrix: Solid****Date Received: 09/23/17 09:20****Percent Solids: 94.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.426 g	5 mL	222043	09/23/17 13:30	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	222022	09/25/17 18:32	WS1	TAL HOU

Client Sample ID: SB02-NFP-28-30-09222017**Lab Sample ID: 600-154375-5****Date Collected: 09/22/17 11:40****Matrix: Solid****Date Received: 09/23/17 09:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			222074	09/25/17 16:06	B1K	TAL HOU

Client Sample ID: SB02-NFP-28-30-09222017**Lab Sample ID: 600-154375-5****Date Collected: 09/22/17 11:40****Matrix: Solid****Date Received: 09/23/17 09:20****Percent Solids: 84.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.725 g	5 mL	222043	09/23/17 13:30	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	222109	09/26/17 11:13	WS1	TAL HOU

Client Sample ID: SB02-NFP-39-40-09222017**Lab Sample ID: 600-154375-6****Date Collected: 09/22/17 11:45****Matrix: Solid****Date Received: 09/23/17 09:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			222074	09/25/17 16:12	B1K	TAL HOU

Client Sample ID: SB02-NFP-39-40-09222017**Lab Sample ID: 600-154375-6****Date Collected: 09/22/17 11:45****Matrix: Solid****Date Received: 09/23/17 09:20****Percent Solids: 92.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.936 g	5 mL	222043	09/23/17 13:30	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	222109	09/26/17 11:38	WS1	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TestAmerica Houston

Accreditation/Certification Summary

Client: CH2M Hill Constructors, Inc.

TestAmerica Job ID: 600-154375-1

Project/Site: Kinder Morgan Bloomfield, NM NFP

Laboratory: TestAmerica Houston

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
Arkansas DEQ	State Program	6	17-051-0	08-04-18
Louisiana	NELAP	6	01967	06-30-18
Oklahoma	State Program	6	2017-138	08-31-18
Texas	NELAP	6	T104704223-17-21	10-31-17
USDA	Federal		P330-17-00132	04-20-20

TestAmerica Houston

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

TestAmerica

THE LEADERS IN ENVIRONMENTAL TESTING

Client Information		Sampler: L. Hill		Lab PM: Upton, Cathy L	Carrier Tracking No(s):		COC No: 600-36947-10949.1
Client Contact: Aleeca Forsberg		Phone: 205-240-3235		E-Mail: cathy.upton@testamericainc.com	Page 1 of 1		Job #
Company: CH2M Hill, Inc.		Due Date Requested:		Analysis Requested			
Address: 3721 Rutledge Rd. NE Suite B-1		TAT Requested (days):		SOILS 8260B_5035 - BTEX (SHORT HOLD-48HRS) Percent Moisture WATERS 8260B_LL - BTEX			
City: Albuquerque		10 BD Prelim; 14 BD Level3 Package (3e)					
State, Zip: NM, 87109		PO #:					
Phone: 281-721-8546(Tel)		WD293112					
Email: Aleeca.Forsberg@CH2M.com		WO #:					
Project Name: Kinder Morgan Bloomfield, NM NFP		HOUSTON Project #:					
Site: BTEX Soils		60004617					
		SSOW#:					
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=acid, O=wastewater, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Special Instructions/Note:
TB13 - NFP-09222017	9/22/17	0700	G	water	N	N	*** 48Hr Holding Time
SB02 - NFP-12-14-09222017	9/22/17	1110	G	Soil	N	X	From Sample Collection
MD02 - NFP-12-14-09222017	9/22/17	1115	G	Soil	N	X	
SB02 - NFP-20-21-09222017	9/22/17	1125	G	Soil	N	X	
SB02 - NFP-28-30-09222017	9/22/17	1140	G	Soil	N	X	PID > 100 ppm
SB02 - NFP-39-40-09222017	9/22/17	1145	G	Soil	N	X	
			G	Soil			
			G	Soil			
			G	Soil			
			G	Soil			
			G	Water			

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)

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: **L. Hill** Date: **9/22/17** Time: **1700** Company: **CH2M**

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

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

Custody Seal No.: _____

Cooler Temperature(s) °C and Other Remarks: **09 CF-3 06 18219**

Loc: 600

154375

TestAmerica Houston

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sample Receipt

Date/Time Received:

17 SEP 23 9:20

JOB NUMBER:

CLIENT:

CH2M

UNPACKED BY:

CARRIER/DRIVER:

FB Seal

Custody Seal Present:

☒ YES☐ NO

Number of Coolers Received:

1

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
B2W	Y / N	Y / N	0.9	549	-3	0.6
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice?

☒ YES☐ NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED:

☒ NO☐ YES

Base samples are >pH 12:

☐ YES☐ NO

Acid preserved are <pH 2:

☐ YES☐ NO

pH paper Lot #

VOA headspace acceptable (5-6mm):

☒ YES☐ NO☐ NA

YES NO

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?

COMMENTS:

Login Sample Receipt Checklist

Client: CH2M Hill Constructors, Inc.

Job Number: 600-154375-1

Login Number: 154375

List Source: TestAmerica Houston

List Number: 1

Creator: Crafton, Tommie S

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
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	0.6°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.



Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

Laboratory Job ID: 600-190242-1

Client Project/Site: Kinder Morgan Blanco Field NFP 08/15/19
Revision: 1

For:

CH2M Hill, Inc.
3721 Rutledge Rd. NE
Suite B-1
Albuquerque, New Mexico 87109

Attn: Aleeca Forsberg

Authorized for release by:

12/10/2020 10:37:46 AM

Steve Stepanski, Project Mgmt. Assistant
(713)690-4444

steve.stepanski@Eurofinset.com

Designee for

Bethany McDaniel, Senior Project Manager
(713)358-2005

bethany.mcdaniel@testamericainc.com

LINKS

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results through

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.

Client: CH2M Hill, Inc.

Laboratory Job ID: 600-190242-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

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Case Narrative

Client: CH2M Hill, Inc.
Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Job ID: 600-190242-1

Job ID: 600-190242-1**Laboratory: Eurofins TestAmerica, Houston****Narrative****Job Narrative
600-190242-1****Comments**

This report was revised to a Level 2 deliverable per client's request.

Receipt

The samples were received on 8/15/2019 10:24 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.4° C.

GC/MS VOA

Method(s) 8260B: the sample was rerun for IS failed. the rerun result had Toluene and Xylene carried over from previous run. The MS/MSD proved the sample didn't contain any target analytes so the result was valid. NFP-MW50-1-2-08142019 (600-190242-7)

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

General Chemistry

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

Method Summary

Client: CH2M Hill, Inc.

Job ID: 600-190242-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
2540B	Percent Moisture	SM20	TAL HOU
5030B	Purge and Trap	SW846	TAL HOU
5035_ASP	Closed System Purge and Trap	SW846	TAL HOU

Protocol References:

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: CH2M Hill, Inc.

Job ID: 600-190242-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-190242-1	NFP-TB01-08142019	Water	08/14/19 12:00	08/15/19 10:24	
600-190242-2	NFP-MW54-1-2-08142019	Solid	08/14/19 12:45	08/15/19 10:24	
600-190242-3	NFP-MW55-1-2-08142019	Solid	08/14/19 13:10	08/15/19 10:24	
600-190242-4	NFP-MW51-1-2-08142019	Solid	08/14/19 13:30	08/15/19 10:24	
600-190242-5	NFP-MW52-1-2-08142019	Solid	08/14/19 13:45	08/15/19 10:24	
600-190242-6	NFP-MW52-1-2-08142019-2	Solid	08/14/19 13:45	08/15/19 10:24	
600-190242-7	NFP-MW50-1-2-08142019	Solid	08/14/19 14:40	08/15/19 10:24	

Client Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190242-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Client Sample ID: NFP-TB01-08142019

Lab Sample ID: 600-190242-1

Date Collected: 08/14/19 12:00

Matrix: Water

Date Received: 08/15/19 10:24

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			08/16/19 14:55	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			08/16/19 14:55	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			08/16/19 14:55	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			08/16/19 14:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		50 - 134		08/16/19 14:55	1
Dibromofluoromethane	91		62 - 130		08/16/19 14:55	1
Toluene-d8 (Surr)	103		70 - 130		08/16/19 14:55	1
4-Bromofluorobenzene	124		67 - 139		08/16/19 14:55	1

Client Sample ID: NFP-MW54-1-2-08142019

Lab Sample ID: 600-190242-2

Date Collected: 08/14/19 12:45

Matrix: Solid

Date Received: 08/15/19 10:24

Percent Solids: 69.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000894	U	0.00709	0.000894	mg/Kg	☼	08/15/19 16:20	08/22/19 14:23	1
Ethylbenzene	0.00145	U	0.00709	0.00145	mg/Kg	☼	08/15/19 16:20	08/22/19 14:23	1
Toluene	0.00196	U	0.00709	0.00196	mg/Kg	☼	08/15/19 16:20	08/22/19 14:23	1
Xylenes, Total	0.00160	U	0.00709	0.00160	mg/Kg	☼	08/15/19 16:20	08/22/19 14:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		61 - 130	08/15/19 16:20	08/22/19 14:23	1
Dibromofluoromethane	101		68 - 140	08/15/19 16:20	08/22/19 14:23	1
Toluene-d8 (Surr)	105		50 - 130	08/15/19 16:20	08/22/19 14:23	1
4-Bromofluorobenzene	125		57 - 140	08/15/19 16:20	08/22/19 14:23	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	30.6		1.0	1.0	%			08/16/19 15:48	1
Percent Solids	69.4		1.0	1.0	%			08/16/19 15:48	1

Client Sample ID: NFP-MW55-1-2-08142019

Lab Sample ID: 600-190242-3

Date Collected: 08/14/19 13:10

Matrix: Solid

Date Received: 08/15/19 10:24

Percent Solids: 98.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000610	U	0.00484	0.000610	mg/Kg	☼	08/15/19 16:20	08/22/19 14:56	1
Ethylbenzene	0.000988	U	0.00484	0.000988	mg/Kg	☼	08/15/19 16:20	08/22/19 14:56	1
Toluene	0.00134	U	0.00484	0.00134	mg/Kg	☼	08/15/19 16:20	08/22/19 14:56	1
Xylenes, Total	0.00109	U	0.00484	0.00109	mg/Kg	☼	08/15/19 16:20	08/22/19 14:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		61 - 130	08/15/19 16:20	08/22/19 14:56	1
Dibromofluoromethane	101		68 - 140	08/15/19 16:20	08/22/19 14:56	1
Toluene-d8 (Surr)	105		50 - 130	08/15/19 16:20	08/22/19 14:56	1
4-Bromofluorobenzene	122		57 - 140	08/15/19 16:20	08/22/19 14:56	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190242-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Client Sample ID: NFP-MW55-1-2-08142019

Lab Sample ID: 600-190242-3

Date Collected: 08/14/19 13:10

Matrix: Solid

Date Received: 08/15/19 10:24

Percent Solids: 98.9

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	1.1		1.0	1.0	%			08/16/19 15:48	1
Percent Solids	98.9		1.0	1.0	%			08/16/19 15:48	1

Client Sample ID: NFP-MW51-1-2-08142019

Lab Sample ID: 600-190242-4

Date Collected: 08/14/19 13:30

Matrix: Solid

Date Received: 08/15/19 10:24

Percent Solids: 91.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000607	U	0.00482	0.000607	mg/Kg	☼	08/15/19 16:20	08/22/19 15:32	1
Ethylbenzene	0.000983	U	0.00482	0.000983	mg/Kg	☼	08/15/19 16:20	08/22/19 15:32	1
Toluene	0.00133	U	0.00482	0.00133	mg/Kg	☼	08/15/19 16:20	08/22/19 15:32	1
Xylenes, Total	0.00109	U	0.00482	0.00109	mg/Kg	☼	08/15/19 16:20	08/22/19 15:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		61 - 130	08/15/19 16:20	08/22/19 15:32	1
Dibromofluoromethane	99		68 - 140	08/15/19 16:20	08/22/19 15:32	1
Toluene-d8 (Surr)	105		50 - 130	08/15/19 16:20	08/22/19 15:32	1
4-Bromofluorobenzene	122		57 - 140	08/15/19 16:20	08/22/19 15:32	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.8		1.0	1.0	%			08/16/19 17:00	1
Percent Solids	91.2		1.0	1.0	%			08/16/19 17:00	1

Client Sample ID: NFP-MW52-1-2-08142019

Lab Sample ID: 600-190242-5

Date Collected: 08/14/19 13:45

Matrix: Solid

Date Received: 08/15/19 10:24

Percent Solids: 93.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000568	U	0.00451	0.000568	mg/Kg	☼	08/15/19 16:20	08/23/19 19:13	1
Ethylbenzene	0.000920	U	0.00451	0.000920	mg/Kg	☼	08/15/19 16:20	08/23/19 19:13	1
Toluene	0.00124	U	0.00451	0.00124	mg/Kg	☼	08/15/19 16:20	08/23/19 19:13	1
Xylenes, Total	0.00102	U	0.00451	0.00102	mg/Kg	☼	08/15/19 16:20	08/23/19 19:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		61 - 130	08/15/19 16:20	08/23/19 19:13	1
Dibromofluoromethane	95		68 - 140	08/15/19 16:20	08/23/19 19:13	1
Toluene-d8 (Surr)	107		50 - 130	08/15/19 16:20	08/23/19 19:13	1
4-Bromofluorobenzene	124		57 - 140	08/15/19 16:20	08/23/19 19:13	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	6.5		1.0	1.0	%			08/16/19 17:00	1
Percent Solids	93.5		1.0	1.0	%			08/16/19 17:00	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190242-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Client Sample ID: NFP-MW52-1-2-08142019-2

Lab Sample ID: 600-190242-6

Date Collected: 08/14/19 13:45

Matrix: Solid

Date Received: 08/15/19 10:24

Percent Solids: 95.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000558	U	0.00443	0.000558	mg/Kg	☼	08/15/19 16:20	08/23/19 17:15	1
Ethylbenzene	0.000904	U	0.00443	0.000904	mg/Kg	☼	08/15/19 16:20	08/23/19 17:15	1
Toluene	0.00122	U	0.00443	0.00122	mg/Kg	☼	08/15/19 16:20	08/23/19 17:15	1
Xylenes, Total	0.00186	J	0.00443	0.00100	mg/Kg	☼	08/15/19 16:20	08/23/19 17:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		61 - 130	08/15/19 16:20	08/23/19 17:15	1
Dibromofluoromethane	93		68 - 140	08/15/19 16:20	08/23/19 17:15	1
Toluene-d8 (Surr)	105		50 - 130	08/15/19 16:20	08/23/19 17:15	1
4-Bromofluorobenzene	119		57 - 140	08/15/19 16:20	08/23/19 17:15	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.6		1.0	1.0	%	—		08/16/19 17:00	1
Percent Solids	95.4		1.0	1.0	%	—		08/16/19 17:00	1

Client Sample ID: NFP-MW50-1-2-08142019

Lab Sample ID: 600-190242-7

Date Collected: 08/14/19 14:40

Matrix: Solid

Date Received: 08/15/19 10:24

Percent Solids: 95.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000651	U *	0.00517	0.000651	mg/Kg	☼	08/15/19 16:20	08/22/19 17:22	1
Ethylbenzene	0.00105	U *	0.00517	0.00105	mg/Kg	☼	08/15/19 16:20	08/22/19 17:22	1
Toluene	0.00143	U *	0.00517	0.00143	mg/Kg	☼	08/15/19 16:20	08/22/19 17:22	1
Xylenes, Total	0.00117	U *	0.00517	0.00117	mg/Kg	☼	08/15/19 16:20	08/22/19 17:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107	*	61 - 130	08/15/19 16:20	08/22/19 17:22	1
Dibromofluoromethane	102	*	68 - 140	08/15/19 16:20	08/22/19 17:22	1
Toluene-d8 (Surr)	107	*	50 - 130	08/15/19 16:20	08/22/19 17:22	1
4-Bromofluorobenzene	125	*	57 - 140	08/15/19 16:20	08/22/19 17:22	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.5		1.0	1.0	%	—		08/16/19 17:00	1
Percent Solids	95.5		1.0	1.0	%	—		08/16/19 17:00	1

Eurofins TestAmerica, Houston

Definitions/Glossary

Client: CH2M Hill, Inc.

Job ID: 600-190242-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	ISTD response or retention time outside acceptable limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

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)

Surrogate Summary

Client: CH2M Hill, Inc.

Job ID: 600-190242-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-190242-2	NFP-MW54-1-2-08142019	101	101	105	125
600-190242-3	NFP-MW55-1-2-08142019	104	101	105	122
600-190242-4	NFP-MW51-1-2-08142019	97	99	105	122
600-190242-5	NFP-MW52-1-2-08142019	101	95	107	124
600-190242-6	NFP-MW52-1-2-08142019-2	99	93	105	119
600-190242-7	NFP-MW50-1-2-08142019	107 *	102 *	107 *	125 *
600-190242-7MS	NFP-MW50-1-2-08142019	85	100	105	113
600-190242-7MSD	NFP-MW50-1-2-08142019	92	104	103	114
LCS 600-272655/3	Lab Control Sample	93	103	107	115
LCS 600-272770/3	Lab Control Sample	93	104	112	116
LCSD 600-272655/4	Lab Control Sample Dup	93	103	107	114
LCSD 600-272770/4	Lab Control Sample Dup	90	102	108	112
MB 600-272655/6	Method Blank	106	103	108	121
MB 600-272770/6	Method Blank	97	96	106	117
Surrogate Legend					
DCA = 1,2-Dichloroethane-d4 (Surr)					
DBFM = Dibromofluoromethane					
TOL = Toluene-d8 (Surr)					
BFB = 4-Bromofluorobenzene					

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (50-134)	DBFM (62-130)	TOL (70-130)	BFB (67-139)
600-190242-1	NFP-TB01-08142019	93	91	103	124
LCS 600-272179/3	Lab Control Sample	86	89	109	119
LCSD 600-272179/4	Lab Control Sample Dup	87	89	107	121
MB 600-272179/6	Method Blank	95	90	101	124
Surrogate Legend					
DCA = 1,2-Dichloroethane-d4 (Surr)					
DBFM = Dibromofluoromethane					
TOL = Toluene-d8 (Surr)					
BFB = 4-Bromofluorobenzene					

Eurofins TestAmerica, Houston

QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190242-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-272179/6

Matrix: Water

Analysis Batch: 272179

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			08/16/19 13:58	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			08/16/19 13:58	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			08/16/19 13:58	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			08/16/19 13:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		50 - 134		08/16/19 13:58	1
Dibromofluoromethane	90		62 - 130		08/16/19 13:58	1
Toluene-d8 (Surr)	101		70 - 130		08/16/19 13:58	1
4-Bromofluorobenzene	124		67 - 139		08/16/19 13:58	1

Lab Sample ID: LCS 600-272179/3

Matrix: Water

Analysis Batch: 272179

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.009468		mg/L		95	70 - 130
Ethylbenzene	0.0100	0.01013		mg/L		101	70 - 130
Toluene	0.0100	0.01040		mg/L		104	70 - 130
Xylenes, Total	0.0200	0.02043		mg/L		102	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	86		50 - 134
Dibromofluoromethane	89		62 - 130
Toluene-d8 (Surr)	109		70 - 130
4-Bromofluorobenzene	119		67 - 139

Lab Sample ID: LCSD 600-272179/4

Matrix: Water

Analysis Batch: 272179

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
Benzene	0.0100	0.009863		mg/L		99	70 - 130	4	20
Ethylbenzene	0.0100	0.01053		mg/L		105	70 - 130	4	20
Toluene	0.0100	0.01063		mg/L		106	70 - 130	2	20
Xylenes, Total	0.0200	0.02120		mg/L		106	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	87		50 - 134
Dibromofluoromethane	89		62 - 130
Toluene-d8 (Surr)	107		70 - 130
4-Bromofluorobenzene	121		67 - 139

Eurofins TestAmerica, Houston

QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190242-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

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

Lab Sample ID: MB 600-272655/6

Matrix: Solid

Analysis Batch: 272655

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			08/22/19 13:47	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			08/22/19 13:47	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			08/22/19 13:47	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			08/22/19 13:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		61 - 130		08/22/19 13:47	1
Dibromofluoromethane	103		68 - 140		08/22/19 13:47	1
Toluene-d8 (Surr)	108		50 - 130		08/22/19 13:47	1
4-Bromofluorobenzene	121		57 - 140		08/22/19 13:47	1

Lab Sample ID: LCS 600-272655/3

Matrix: Solid

Analysis Batch: 272655

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.06185		mg/Kg		124	70 - 131
Ethylbenzene	0.0500	0.06082		mg/Kg		122	66 - 130
Toluene	0.0500	0.06015		mg/Kg		120	67 - 130
Xylenes, Total	0.100	0.1188		mg/Kg		119	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		61 - 130
Dibromofluoromethane	103		68 - 140
Toluene-d8 (Surr)	107		50 - 130
4-Bromofluorobenzene	115		57 - 140

Lab Sample ID: LCSD 600-272655/4

Matrix: Solid

Analysis Batch: 272655

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
Benzene	0.0500	0.05851		mg/Kg		117	70 - 131	6	30
Ethylbenzene	0.0500	0.05807		mg/Kg		116	66 - 130	5	30
Toluene	0.0500	0.05753		mg/Kg		115	67 - 130	4	30
Xylenes, Total	0.100	0.1136		mg/Kg		114	63 - 130	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		61 - 130
Dibromofluoromethane	103		68 - 140
Toluene-d8 (Surr)	107		50 - 130
4-Bromofluorobenzene	114		57 - 140

Eurofins TestAmerica, Houston

QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190242-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

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

Lab Sample ID: 600-190242-7MS

Matrix: Solid

Analysis Batch: 272655

Client Sample ID: NFP-MW50-1-2-08142019

Prep Type: Total/NA

Prep Batch: 272661

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.000651	U *	0.0516	0.05904		mg/Kg	☼	115	70 - 131
Ethylbenzene	0.00105	U *	0.0516	0.05663		mg/Kg	☼	110	66 - 130
Toluene	0.00143	U *	0.0516	0.05716		mg/Kg	☼	111	67 - 130
Xylenes, Total	0.00117	U *	0.103	0.1096		mg/Kg	☼	106	63 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	85		61 - 130
Dibromofluoromethane	100		68 - 140
Toluene-d8 (Surr)	105		50 - 130
4-Bromofluorobenzene	113		57 - 140

Lab Sample ID: 600-190242-7MSD

Matrix: Solid

Analysis Batch: 272655

Client Sample ID: NFP-MW50-1-2-08142019

Prep Type: Total/NA

Prep Batch: 272661

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.000651	U *	0.0490	0.05366		mg/Kg	☼	109	70 - 131	10	30
Ethylbenzene	0.00105	U *	0.0490	0.04611		mg/Kg	☼	94	66 - 130	20	30
Toluene	0.00143	U *	0.0490	0.04866		mg/Kg	☼	99	67 - 130	16	30
Xylenes, Total	0.00117	U *	0.0981	0.09036		mg/Kg	☼	92	63 - 130	19	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		61 - 130
Dibromofluoromethane	104		68 - 140
Toluene-d8 (Surr)	103		50 - 130
4-Bromofluorobenzene	114		57 - 140

Lab Sample ID: MB 600-272770/6

Matrix: Solid

Analysis Batch: 272770

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			08/23/19 14:07	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			08/23/19 14:07	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			08/23/19 14:07	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			08/23/19 14:07	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		61 - 130		08/23/19 14:07	1
Dibromofluoromethane	96		68 - 140		08/23/19 14:07	1
Toluene-d8 (Surr)	106		50 - 130		08/23/19 14:07	1
4-Bromofluorobenzene	117		57 - 140		08/23/19 14:07	1

Eurofins TestAmerica, Houston

QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190242-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

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

Lab Sample ID: LCS 600-272770/3

Matrix: Solid

Analysis Batch: 272770

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.06398		mg/Kg		128	70 - 131
Ethylbenzene	0.0500	0.06142		mg/Kg		123	66 - 130
Toluene	0.0500	0.06201		mg/Kg		124	67 - 130
Xylenes, Total	0.100	0.1203		mg/Kg		120	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		61 - 130
Dibromofluoromethane	104		68 - 140
Toluene-d8 (Surr)	112		50 - 130
4-Bromofluorobenzene	116		57 - 140

Lab Sample ID: LCSD 600-272770/4

Matrix: Solid

Analysis Batch: 272770

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
Benzene	0.0500	0.05674		mg/Kg		113	70 - 131	12	30
Ethylbenzene	0.0500	0.05513		mg/Kg		110	66 - 130	11	30
Toluene	0.0500	0.05477		mg/Kg		110	67 - 130	12	30
Xylenes, Total	0.100	0.1090		mg/Kg		109	63 - 130	10	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	90		61 - 130
Dibromofluoromethane	102		68 - 140
Toluene-d8 (Surr)	108		50 - 130
4-Bromofluorobenzene	112		57 - 140

Method: 2540B - Percent Moisture

Lab Sample ID: 600-190242-3 DU

Matrix: Solid

Analysis Batch: 272216

Client Sample ID: NFP-MW55-1-2-08142019

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	1.1		1.3		%		20	20
Percent Solids	98.9		98.7		%		0.2	20

Eurofins TestAmerica, Houston

QC Association Summary

Client: CH2M Hill, Inc.

Job ID: 600-190242-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

GC/MS VOA

Analysis Batch: 272179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190242-1	NFP-TB01-08142019	Total/NA	Water	8260B	
MB 600-272179/6	Method Blank	Total/NA	Water	8260B	
LCS 600-272179/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-272179/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 272655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190242-2	NFP-MW54-1-2-08142019	Total/NA	Solid	8260B	272661
600-190242-3	NFP-MW55-1-2-08142019	Total/NA	Solid	8260B	272661
600-190242-4	NFP-MW51-1-2-08142019	Total/NA	Solid	8260B	272661
600-190242-7	NFP-MW50-1-2-08142019	Total/NA	Solid	8260B	272661
MB 600-272655/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-272655/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-272655/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
600-190242-7MS	NFP-MW50-1-2-08142019	Total/NA	Solid	8260B	272661
600-190242-7MSD	NFP-MW50-1-2-08142019	Total/NA	Solid	8260B	272661

Prep Batch: 272661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190242-2	NFP-MW54-1-2-08142019	Total/NA	Solid	5035_ASP	
600-190242-3	NFP-MW55-1-2-08142019	Total/NA	Solid	5035_ASP	
600-190242-4	NFP-MW51-1-2-08142019	Total/NA	Solid	5035_ASP	
600-190242-5	NFP-MW52-1-2-08142019	Total/NA	Solid	5035_ASP	
600-190242-6	NFP-MW52-1-2-08142019-2	Total/NA	Solid	5035_ASP	
600-190242-7	NFP-MW50-1-2-08142019	Total/NA	Solid	5035_ASP	
600-190242-7MS	NFP-MW50-1-2-08142019	Total/NA	Solid	5035_ASP	
600-190242-7MSD	NFP-MW50-1-2-08142019	Total/NA	Solid	5035_ASP	

Analysis Batch: 272770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190242-5	NFP-MW52-1-2-08142019	Total/NA	Solid	8260B	272661
600-190242-6	NFP-MW52-1-2-08142019-2	Total/NA	Solid	8260B	272661
MB 600-272770/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-272770/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-272770/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

General Chemistry

Analysis Batch: 272216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190242-2	NFP-MW54-1-2-08142019	Total/NA	Solid	2540B	
600-190242-3	NFP-MW55-1-2-08142019	Total/NA	Solid	2540B	
600-190242-4	NFP-MW51-1-2-08142019	Total/NA	Solid	2540B	
600-190242-5	NFP-MW52-1-2-08142019	Total/NA	Solid	2540B	
600-190242-6	NFP-MW52-1-2-08142019-2	Total/NA	Solid	2540B	
600-190242-7	NFP-MW50-1-2-08142019	Total/NA	Solid	2540B	
600-190242-7MS	NFP-MW50-1-2-08142019	Total/NA	Solid	2540B	
600-190242-7MSD	NFP-MW50-1-2-08142019	Total/NA	Solid	2540B	
600-190242-3 DU	NFP-MW55-1-2-08142019	Total/NA	Solid	2540B	

Eurofins TestAmerica, Houston

Lab Chronicle

Client: CH2M Hill, Inc.

Job ID: 600-190242-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Client Sample ID: NFP-TB01-08142019**Lab Sample ID: 600-190242-1****Date Collected: 08/14/19 12:00****Matrix: Water****Date Received: 08/15/19 10:24**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	272179	08/16/19 14:55	YX1	TAL HOU

Client Sample ID: NFP-MW54-1-2-08142019**Lab Sample ID: 600-190242-2****Date Collected: 08/14/19 12:45****Matrix: Solid****Date Received: 08/15/19 10:24**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272216	08/16/19 15:48	AP	TAL HOU

Client Sample ID: NFP-MW54-1-2-08142019**Lab Sample ID: 600-190242-2****Date Collected: 08/14/19 12:45****Matrix: Solid****Date Received: 08/15/19 10:24****Percent Solids: 69.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.08 g	5 mL	272661	08/15/19 16:20	KLV	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272655	08/22/19 14:23	YX1	TAL HOU

Client Sample ID: NFP-MW55-1-2-08142019**Lab Sample ID: 600-190242-3****Date Collected: 08/14/19 13:10****Matrix: Solid****Date Received: 08/15/19 10:24**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272216	08/16/19 15:48	AP	TAL HOU

Client Sample ID: NFP-MW55-1-2-08142019**Lab Sample ID: 600-190242-3****Date Collected: 08/14/19 13:10****Matrix: Solid****Date Received: 08/15/19 10:24****Percent Solids: 98.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.22 g	5 mL	272661	08/15/19 16:20	KLV	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272655	08/22/19 14:56	YX1	TAL HOU

Client Sample ID: NFP-MW51-1-2-08142019**Lab Sample ID: 600-190242-4****Date Collected: 08/14/19 13:30****Matrix: Solid****Date Received: 08/15/19 10:24**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272216	08/16/19 17:00	AP	TAL HOU

Client Sample ID: NFP-MW51-1-2-08142019**Lab Sample ID: 600-190242-4****Date Collected: 08/14/19 13:30****Matrix: Solid****Date Received: 08/15/19 10:24****Percent Solids: 91.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.69 g	5 mL	272661	08/15/19 16:20	KLV	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272655	08/22/19 15:32	YX1	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: CH2M Hill, Inc.

Job ID: 600-190242-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Client Sample ID: NFP-MW52-1-2-08142019

Lab Sample ID: 600-190242-5

Date Collected: 08/14/19 13:45

Matrix: Solid

Date Received: 08/15/19 10:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272216	08/16/19 17:00	AP	TAL HOU

Client Sample ID: NFP-MW52-1-2-08142019

Lab Sample ID: 600-190242-5

Date Collected: 08/14/19 13:45

Matrix: Solid

Date Received: 08/15/19 10:24

Percent Solids: 93.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.93 g	5 mL	272661	08/15/19 16:20	KLK	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272770	08/23/19 19:13	YX1	TAL HOU

Client Sample ID: NFP-MW52-1-2-08142019-2

Lab Sample ID: 600-190242-6

Date Collected: 08/14/19 13:45

Matrix: Solid

Date Received: 08/15/19 10:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272216	08/16/19 17:00	AP	TAL HOU

Client Sample ID: NFP-MW52-1-2-08142019-2

Lab Sample ID: 600-190242-6

Date Collected: 08/14/19 13:45

Matrix: Solid

Date Received: 08/15/19 10:24

Percent Solids: 95.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.91 g	5 mL	272661	08/15/19 16:20	KLK	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272770	08/23/19 17:15	YX1	TAL HOU

Client Sample ID: NFP-MW50-1-2-08142019

Lab Sample ID: 600-190242-7

Date Collected: 08/14/19 14:40

Matrix: Solid

Date Received: 08/15/19 10:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272216	08/16/19 17:00	AP	TAL HOU

Client Sample ID: NFP-MW50-1-2-08142019

Lab Sample ID: 600-190242-7

Date Collected: 08/14/19 14:40

Matrix: Solid

Date Received: 08/15/19 10:24

Percent Solids: 95.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.07 g	5 mL	272661	08/15/19 16:20	KLK	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272655	08/22/19 17:22	YX1	TAL HOU

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Eurofins TestAmerica, Houston

Accreditation/Certification Summary

Client: CH2M Hill, Inc.

Job ID: 600-190242-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Laboratory: Eurofins TestAmerica, Houston

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State Program	19-040-0	08-04-20
Louisiana	NELAP	01967	06-30-20
Oklahoma	State Program	2018-052	08-31-19 *
Texas	NELAP	T104704223-18-23	10-31-19
USDA	Federal	P330-18-00130	04-30-21
Utah	NELAP	TX000832019-5	07-31-20

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

Eurofins TestAmerica, Houston

Eurofins TestAmerica, Houston

6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record



Environment Testing
TestAmerica

Ref: S600-70315
Dep: Houston Hub

Date: 08Aug19
Wgt: 10.00 LBS

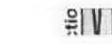
SHIPPING:
SPECIAL:
HANDLING:
TOTAL:

0.00
0.00
0.00
0.00

DV:

0.00

Svs: PRIORITY OVERNIGHT Master 4564 1087 3069
TRCK: 4564 1087 3070



600-190242 Chain of Custody

Client Information		Lab PM:		Carrier Tracking No(s):		GOC No:	
Client Contact: <u>A. Tucka</u> Phone: <u>607-329-7247</u>		McDaniel, Bethany A E-Mail: <u>bethany.mcdaniel@lestamerica.com</u>		<u>4564 1087 3070</u>		<u>600-70257-19219.1</u>	
Company: <u>CH2M Hill, Inc.</u>				Page: <u>1 of 1</u>		Job #:	
Address: <u>3721 Rulledge Rd. NE Suite B-1</u> City: <u>Albuquerque</u> State, Zip: <u>NM, 87109</u> Phone: <u>505-855-5239(Tel)</u> Email: <u>Jeffrey.minchak@jacobs.com</u> Project Name: <u>Kinder Morgan Bloomfield, NM NFP</u> Site: <u>Blanco Plant</u> Due Date Requested: TAT Requested (days): PO #: <u>WD293112</u> WO #: Project #: <u>60004617</u> SSOW#:							
Sample Identification <u>NFP-TB01-08142019</u> <u>NFP-MW54-1-2-08142019</u> <u>NFP-MW55-1-2-08142019</u> <u>NFP-MW51-1-2-08142019</u> <u>NFP-MW52-1-2-08142019</u> <u>NFP-MW50-1-2-08142019</u> <u>NFP-MW50-1-2-08142019</u> <u>NFP-MW50-1-2-08142019</u> Sample Date <u>8/14/19</u> <u>8/14/19</u> <u>8/14/19</u> <u>8/14/19</u> <u>8/14/19</u> <u>8/14/19</u> <u>8/14/19</u> Sample Time <u>1200</u> <u>1245</u> <u>1310</u> <u>1330</u> <u>1345</u> <u>1440</u> <u>1440</u> <u>1440</u> Sample Type (C=comp, G=grab) <u>Water</u> <u>G</u> <u>G</u> <u>G</u> <u>G</u> <u>G</u> <u>G</u> <u>G</u> Matrix (Water, Solid, Other) <u>Water</u> <u>Solid</u> <u>Solid</u> <u>S</u> <u>S</u> <u>S</u> <u>S</u> <u>S</u> Preservation Code: <u>Water</u> <u>Solid</u> <u>Solid</u> <u>S</u> <u>S</u> <u>S</u> <u>S</u> <u>S</u>							
Field Filtered Sample (Yes or No) <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> Perform MS/MSD (Yes or No) <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> 8270C, LL - Semivolatiles - Target Compound List <u>N</u> <u>D</u> <u>A</u> <u>N</u> <u>N</u> <u>N</u> <u>N</u> <u>N</u> 8260B, LL - Volatiles - Target Compound List <u>N</u> <u>N</u> <u>N</u> <u>N</u> <u>N</u> <u>N</u> <u>N</u> <u>N</u> 1010 - Flashpoint <u>N</u> <u>N</u> <u>N</u> <u>N</u> <u>N</u> <u>N</u> <u>N</u> <u>N</u> 9040B - pH <u>N</u> <u>N</u> <u>N</u> <u>N</u> <u>N</u> <u>N</u> <u>N</u> <u>N</u> 6010B, 7470A, 8260B, 8270C, TCLP <u>N</u> <u>N</u> <u>N</u> <u>N</u> <u>N</u> <u>N</u> <u>N</u> <u>N</u> 6010B, 7470A, 8260B, 8270C, TCLP <u>N</u> <u>N</u> <u>N</u> <u>N</u> <u>N</u> <u>N</u> <u>N</u> <u>N</u>							
Analysis Requested 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 S - H2SO4 G - Amchlor T - TSP Dodecahydrate H - Ascorbic Acid I - Ice J - DI Water U - Acetone V - MCAA W - pH 4-5 K - EDTA L - EDA Z - other (specify) Other: Total Number of containers <u>2</u> <u>2</u> <u>2</u> <u>2</u> <u>2</u> <u>2</u> <u>2</u> <u>2</u>							
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV, Other (specify)							
Empty Kit Relinquished by: <u>Relinquished by:</u> <u>Relinquished by:</u> <u>Relinquished by:</u> Date: <u>8/14/19</u> <u>8/14/19</u> <u>8/14/19</u>							
Company: <u>Jacobs</u> Date/Time: <u>8/14/19 1630</u> Company: <u>Jacobs</u> Date/Time: <u>8/14/19 1630</u>							
Company: <u>Jacobs</u> Date/Time: <u>8/14/19 1630</u> Company: <u>Jacobs</u> Date/Time: <u>8/14/19 1630</u>							
Custody Seal Intact: Δ Yes Δ No Custody Seal No.:							

Ver: 01/16/2019

TestAmerica Houston

Loc: 100

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sample Receipt Checklist 190242

19 AUG 15 10:24

JOB NUMBER:

Date:

CLIENT:

UNPACKED BY:

CARRIER/DRIVER:

Custody Seal Present:

☒ YES☐ NO

Number of Coolers Received:

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
BW	Y / N	Y / N	5.3	678	+0.1	5.4
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice?

☒ YES☐ NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED:

☒ NO☐ YES

Base samples are > pH 12:

☐ YES☐ NO

Acid preserved are < pH 2:

☐ YES☐ NO

pH paper Lot #

VOA headspace acceptable (5-6mm):

☐ YES☐ NO☒ NA

YES NO

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?

COMMENTS:

Handwritten signature and initials across the comments section.

Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 600-190242-1

Login Number: 190242

List Source: Eurofins TestAmerica, Houston

List Number: 1

Creator: Crafton, Tommie S

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
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	5.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.



Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

Laboratory Job ID: 600-190340-1

Client Project/Site: Kinder Morgan Blanco Field NFP 08/15/19
Revision: 1

For:

CH2M Hill, Inc.
3721 Rutledge Rd. NE
Suite B-1
Albuquerque, New Mexico 87109

Attn: Aleeca Forsberg

Authorized for release by:

12/10/2020 10:39:58 AM

Steve Stepanski, Project Mgmt. Assistant
(713)690-4444

steve.stepanski@Eurofinset.com

Designee for

Bethany McDaniel, Senior Project Manager
(713)358-2005

bethany.mcdaniel@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.

Client: CH2M Hill, Inc.

Laboratory Job ID: 600-190340-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

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Case Narrative

Client: CH2M Hill, Inc.
Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Job ID: 600-190340-1

Job ID: 600-190340-1

Laboratory: Eurofins TestAmerica, Houston

Narrative

Job Narrative 600-190340-1

Comments

This report was revised to a Level 2 deliverable per client's request.

Receipt

The samples were received on 8/16/2019 9:56 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.0° C.

GC/MS VOA

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

General Chemistry

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

Method Summary

Client: CH2M Hill, Inc.

Job ID: 600-190340-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
2540B	Percent Moisture	SM20	TAL HOU
5030B	Purge and Trap	SW846	TAL HOU
5035_ASP	Closed System Purge and Trap	SW846	TAL HOU

Protocol References:

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: CH2M Hill, Inc.

Job ID: 600-190340-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-190340-1	NFP - TB02 - 08152019	Water	08/15/19 08:30	08/16/19 09:56	
600-190340-2	NFP - MW55-10-11-08152019	Solid	08/15/19 11:00	08/16/19 09:56	
600-190340-3	NFP - MW55-19-20-08152019	Solid	08/15/19 11:15	08/16/19 09:56	
600-190340-4	NFP - MW55-29-30-08152019	Solid	08/15/19 11:25	08/16/19 09:56	
600-190340-5	NFP - MW49-01-02-08152019	Solid	08/15/19 09:45	08/16/19 09:56	
600-190340-6	NFP - MW49-01-02-08152019-2	Solid	08/15/19 09:45	08/16/19 09:56	
600-190340-7	NFP - MW56-01-02-08152019	Solid	08/15/19 10:00	08/16/19 09:56	
600-190340-8	NFP - MW53-01-02-08152019	Solid	08/15/19 13:00	08/16/19 09:56	
600-190340-9	NFP - MW55-34-35-08152019	Solid	08/15/19 12:10	08/16/19 09:56	

Client Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190340-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Client Sample ID: NFP - TB02 - 08152019

Lab Sample ID: 600-190340-1

Date Collected: 08/15/19 08:30

Matrix: Water

Date Received: 08/16/19 09:56

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			08/19/19 10:54	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			08/19/19 10:54	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			08/19/19 10:54	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			08/19/19 10:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		50 - 134		08/19/19 10:54	1
Dibromofluoromethane	104		62 - 130		08/19/19 10:54	1
Toluene-d8 (Surr)	92		70 - 130		08/19/19 10:54	1
4-Bromofluorobenzene	100		67 - 139		08/19/19 10:54	1

Client Sample ID: NFP - MW55-10-11-08152019

Lab Sample ID: 600-190340-2

Date Collected: 08/15/19 11:00

Matrix: Solid

Date Received: 08/16/19 09:56

Percent Solids: 95.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000695	U	0.00552	0.000695	mg/Kg	✱	08/16/19 17:35	08/22/19 19:14	1
Ethylbenzene	0.00134	J	0.00552	0.00113	mg/Kg	✱	08/16/19 17:35	08/22/19 19:14	1
Toluene	0.00152	U	0.00552	0.00152	mg/Kg	✱	08/16/19 17:35	08/22/19 19:14	1
Xylenes, Total	0.00134	J	0.00552	0.00125	mg/Kg	✱	08/16/19 17:35	08/22/19 19:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		61 - 130	08/16/19 17:35	08/22/19 19:14	1
Dibromofluoromethane	100		68 - 140	08/16/19 17:35	08/22/19 19:14	1
Toluene-d8 (Surr)	107		50 - 130	08/16/19 17:35	08/22/19 19:14	1
4-Bromofluorobenzene	119		57 - 140	08/16/19 17:35	08/22/19 19:14	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.6		1.0	1.0	%			08/19/19 15:31	1
Percent Solids	95.4		1.0	1.0	%			08/19/19 15:31	1

Client Sample ID: NFP - MW55-19-20-08152019

Lab Sample ID: 600-190340-3

Date Collected: 08/15/19 11:15

Matrix: Solid

Date Received: 08/16/19 09:56

Percent Solids: 93.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000634	U	0.00503	0.000634	mg/Kg	✱	08/16/19 17:35	08/22/19 19:47	1
Ethylbenzene	0.00103	U	0.00503	0.00103	mg/Kg	✱	08/16/19 17:35	08/22/19 19:47	1
Toluene	0.00139	U	0.00503	0.00139	mg/Kg	✱	08/16/19 17:35	08/22/19 19:47	1
Xylenes, Total	0.00114	U	0.00503	0.00114	mg/Kg	✱	08/16/19 17:35	08/22/19 19:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		61 - 130	08/16/19 17:35	08/22/19 19:47	1
Dibromofluoromethane	98		68 - 140	08/16/19 17:35	08/22/19 19:47	1
Toluene-d8 (Surr)	105		50 - 130	08/16/19 17:35	08/22/19 19:47	1
4-Bromofluorobenzene	120		57 - 140	08/16/19 17:35	08/22/19 19:47	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190340-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Client Sample ID: NFP - MW55-19-20-08152019

Lab Sample ID: 600-190340-3

Date Collected: 08/15/19 11:15

Matrix: Solid

Date Received: 08/16/19 09:56

Percent Solids: 93.5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	6.5		1.0	1.0	%			08/19/19 15:31	1
Percent Solids	93.5		1.0	1.0	%			08/19/19 15:31	1

Client Sample ID: NFP - MW55-29-30-08152019

Lab Sample ID: 600-190340-4

Date Collected: 08/15/19 11:25

Matrix: Solid

Date Received: 08/16/19 09:56

Percent Solids: 86.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000642	U	0.00510	0.000642	mg/Kg	☼	08/16/19 17:35	08/22/19 20:20	1
Ethylbenzene	0.00104	U	0.00510	0.00104	mg/Kg	☼	08/16/19 17:35	08/22/19 20:20	1
Toluene	0.00141	U	0.00510	0.00141	mg/Kg	☼	08/16/19 17:35	08/22/19 20:20	1
Xylenes, Total	0.00115	U	0.00510	0.00115	mg/Kg	☼	08/16/19 17:35	08/22/19 20:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		61 - 130	08/16/19 17:35	08/22/19 20:20	1
Dibromofluoromethane	96		68 - 140	08/16/19 17:35	08/22/19 20:20	1
Toluene-d8 (Surr)	105		50 - 130	08/16/19 17:35	08/22/19 20:20	1
4-Bromofluorobenzene	121		57 - 140	08/16/19 17:35	08/22/19 20:20	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.2		1.0	1.0	%			08/19/19 15:31	1
Percent Solids	86.8		1.0	1.0	%			08/19/19 15:31	1

Client Sample ID: NFP - MW49-01-02-08152019

Lab Sample ID: 600-190340-5

Date Collected: 08/15/19 09:45

Matrix: Solid

Date Received: 08/16/19 09:56

Percent Solids: 92.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000603	U	0.00478	0.000603	mg/Kg	☼	08/16/19 17:35	08/22/19 20:52	1
Ethylbenzene	0.000976	U	0.00478	0.000976	mg/Kg	☼	08/16/19 17:35	08/22/19 20:52	1
Toluene	0.00132	U	0.00478	0.00132	mg/Kg	☼	08/16/19 17:35	08/22/19 20:52	1
Xylenes, Total	0.00108	U	0.00478	0.00108	mg/Kg	☼	08/16/19 17:35	08/22/19 20:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		61 - 130	08/16/19 17:35	08/22/19 20:52	1
Dibromofluoromethane	97		68 - 140	08/16/19 17:35	08/22/19 20:52	1
Toluene-d8 (Surr)	107		50 - 130	08/16/19 17:35	08/22/19 20:52	1
4-Bromofluorobenzene	123		57 - 140	08/16/19 17:35	08/22/19 20:52	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.8		1.0	1.0	%			08/19/19 15:31	1
Percent Solids	92.2		1.0	1.0	%			08/19/19 15:31	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190340-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Client Sample ID: NFP - MW49-01-02-08152019-2

Lab Sample ID: 600-190340-6

Date Collected: 08/15/19 09:45

Matrix: Solid

Date Received: 08/16/19 09:56

Percent Solids: 92.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000583	U	0.00462	0.000583	mg/Kg	☼	08/16/19 17:35	08/22/19 21:26	1
Ethylbenzene	0.000943	U	0.00462	0.000943	mg/Kg	☼	08/16/19 17:35	08/22/19 21:26	1
Toluene	0.00128	U	0.00462	0.00128	mg/Kg	☼	08/16/19 17:35	08/22/19 21:26	1
Xylenes, Total	0.00105	U	0.00462	0.00105	mg/Kg	☼	08/16/19 17:35	08/22/19 21:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		61 - 130	08/16/19 17:35	08/22/19 21:26	1
Dibromofluoromethane	94		68 - 140	08/16/19 17:35	08/22/19 21:26	1
Toluene-d8 (Surr)	105		50 - 130	08/16/19 17:35	08/22/19 21:26	1
4-Bromofluorobenzene	120		57 - 140	08/16/19 17:35	08/22/19 21:26	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.3		1.0	1.0	%	-		08/19/19 15:31	1
Percent Solids	92.7		1.0	1.0	%	-		08/19/19 15:31	1

Client Sample ID: NFP - MW56-01-02-08152019

Lab Sample ID: 600-190340-7

Date Collected: 08/15/19 10:00

Matrix: Solid

Date Received: 08/16/19 09:56

Percent Solids: 86.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000742	U	0.00589	0.000742	mg/Kg	☼	08/16/19 17:35	08/22/19 21:57	1
Ethylbenzene	0.00120	U	0.00589	0.00120	mg/Kg	☼	08/16/19 17:35	08/22/19 21:57	1
Toluene	0.00163	U	0.00589	0.00163	mg/Kg	☼	08/16/19 17:35	08/22/19 21:57	1
Xylenes, Total	0.00133	U	0.00589	0.00133	mg/Kg	☼	08/16/19 17:35	08/22/19 21:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		61 - 130	08/16/19 17:35	08/22/19 21:57	1
Dibromofluoromethane	96		68 - 140	08/16/19 17:35	08/22/19 21:57	1
Toluene-d8 (Surr)	110		50 - 130	08/16/19 17:35	08/22/19 21:57	1
4-Bromofluorobenzene	128		57 - 140	08/16/19 17:35	08/22/19 21:57	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.2		1.0	1.0	%	-		08/19/19 15:31	1
Percent Solids	86.8		1.0	1.0	%	-		08/19/19 15:31	1

Client Sample ID: NFP - MW53-01-02-08152019

Lab Sample ID: 600-190340-8

Date Collected: 08/15/19 13:00

Matrix: Solid

Date Received: 08/16/19 09:56

Percent Solids: 88.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000674	U	0.00535	0.000674	mg/Kg	☼	08/16/19 17:35	08/22/19 22:28	1
Ethylbenzene	0.00109	U	0.00535	0.00109	mg/Kg	☼	08/16/19 17:35	08/22/19 22:28	1
Toluene	0.00148	U	0.00535	0.00148	mg/Kg	☼	08/16/19 17:35	08/22/19 22:28	1
Xylenes, Total	0.00121	U	0.00535	0.00121	mg/Kg	☼	08/16/19 17:35	08/22/19 22:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		61 - 130	08/16/19 17:35	08/22/19 22:28	1
Dibromofluoromethane	96		68 - 140	08/16/19 17:35	08/22/19 22:28	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190340-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Client Sample ID: NFP - MW53-01-02-08152019

Lab Sample ID: 600-190340-8

Date Collected: 08/15/19 13:00

Matrix: Solid

Date Received: 08/16/19 09:56

Percent Solids: 88.7

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	106		50 - 130	08/16/19 17:35	08/22/19 22:28	1
4-Bromofluorobenzene	122		57 - 140	08/16/19 17:35	08/22/19 22:28	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.3		1.0	1.0	%			08/19/19 15:31	1
Percent Solids	88.7		1.0	1.0	%			08/19/19 15:31	1

Client Sample ID: NFP - MW55-34-35-08152019

Lab Sample ID: 600-190340-9

Date Collected: 08/15/19 12:10

Matrix: Solid

Date Received: 08/16/19 09:56

Percent Solids: 82.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00542		0.00515	0.000649	mg/Kg	☼	08/16/19 17:35	08/22/19 22:59	1
Ethylbenzene	0.00105	U	0.00515	0.00105	mg/Kg	☼	08/16/19 17:35	08/22/19 22:59	1
Toluene	0.00790		0.00515	0.00142	mg/Kg	☼	08/16/19 17:35	08/22/19 22:59	1
Xylenes, Total	0.0133		0.00515	0.00116	mg/Kg	☼	08/16/19 17:35	08/22/19 22:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		61 - 130	08/16/19 17:35	08/22/19 22:59	1
Dibromofluoromethane	92		68 - 140	08/16/19 17:35	08/22/19 22:59	1
Toluene-d8 (Surr)	103		50 - 130	08/16/19 17:35	08/22/19 22:59	1
4-Bromofluorobenzene	116		57 - 140	08/16/19 17:35	08/22/19 22:59	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.4		1.0	1.0	%			08/19/19 15:31	1
Percent Solids	82.6		1.0	1.0	%			08/19/19 15:31	1

Eurofins TestAmerica, Houston

Definitions/Glossary

Client: CH2M Hill, Inc.

Job ID: 600-190340-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

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)

Surrogate Summary

Client: CH2M Hill, Inc.

Job ID: 600-190340-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-190340-2	NFP - MW55-10-11-08152019	96	100	107	119
600-190340-3	NFP - MW55-19-20-08152019	97	98	105	120
600-190340-4	NFP - MW55-29-30-08152019	96	96	105	121
600-190340-5	NFP - MW49-01-02-08152019	91	97	107	123
600-190340-6	NFP - MW49-01-02-08152019-2	92	94	105	120
600-190340-7	NFP - MW56-01-02-08152019	91	96	110	128
600-190340-8	NFP - MW53-01-02-08152019	101	96	106	122
600-190340-9	NFP - MW55-34-35-08152019	88	92	103	116
LCS 600-272655/3	Lab Control Sample	93	103	107	115
LCSD 600-272655/4	Lab Control Sample Dup	93	103	107	114
MB 600-272655/6	Method Blank	106	103	108	121
Surrogate Legend					
DCA = 1,2-Dichloroethane-d4 (Surr)					
DBFM = Dibromofluoromethane					
TOL = Toluene-d8 (Surr)					
BFB = 4-Bromofluorobenzene					

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (50-134)	DBFM (62-130)	TOL (70-130)	BFB (67-139)
600-190340-1	NFP - TB02 - 08152019	101	104	92	100
LCS 600-272250/3	Lab Control Sample	94	106	88	103
LCSD 600-272250/4	Lab Control Sample Dup	100	107	90	103
MB 600-272250/6	Method Blank	102	106	91	108
Surrogate Legend					
DCA = 1,2-Dichloroethane-d4 (Surr)					
DBFM = Dibromofluoromethane					
TOL = Toluene-d8 (Surr)					
BFB = 4-Bromofluorobenzene					

Eurofins TestAmerica, Houston

QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190340-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-272250/6

Matrix: Water

Analysis Batch: 272250

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			08/19/19 10:28	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			08/19/19 10:28	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			08/19/19 10:28	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			08/19/19 10:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		50 - 134		08/19/19 10:28	1
Dibromofluoromethane	106		62 - 130		08/19/19 10:28	1
Toluene-d8 (Surr)	91		70 - 130		08/19/19 10:28	1
4-Bromofluorobenzene	108		67 - 139		08/19/19 10:28	1

Lab Sample ID: LCS 600-272250/3

Matrix: Water

Analysis Batch: 272250

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.01170		mg/L		117	70 - 130
Ethylbenzene	0.0100	0.01124		mg/L		112	70 - 130
Toluene	0.0100	0.01085		mg/L		109	70 - 130
Xylenes, Total	0.0200	0.02249		mg/L		112	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		50 - 134
Dibromofluoromethane	106		62 - 130
Toluene-d8 (Surr)	88		70 - 130
4-Bromofluorobenzene	103		67 - 139

Lab Sample ID: LCSD 600-272250/4

Matrix: Water

Analysis Batch: 272250

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
Benzene	0.0100	0.01164		mg/L		116	70 - 130	1	20
Ethylbenzene	0.0100	0.01138		mg/L		114	70 - 130	1	20
Toluene	0.0100	0.01067		mg/L		107	70 - 130	2	20
Xylenes, Total	0.0200	0.02206		mg/L		110	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		50 - 134
Dibromofluoromethane	107		62 - 130
Toluene-d8 (Surr)	90		70 - 130
4-Bromofluorobenzene	103		67 - 139

Eurofins TestAmerica, Houston

QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190340-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

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

Lab Sample ID: MB 600-272655/6

Matrix: Solid

Analysis Batch: 272655

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			08/22/19 13:47	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			08/22/19 13:47	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			08/22/19 13:47	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			08/22/19 13:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		61 - 130		08/22/19 13:47	1
Dibromofluoromethane	103		68 - 140		08/22/19 13:47	1
Toluene-d8 (Surr)	108		50 - 130		08/22/19 13:47	1
4-Bromofluorobenzene	121		57 - 140		08/22/19 13:47	1

Lab Sample ID: LCS 600-272655/3

Matrix: Solid

Analysis Batch: 272655

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.06185		mg/Kg		124	70 - 131
Ethylbenzene	0.0500	0.06082		mg/Kg		122	66 - 130
Toluene	0.0500	0.06015		mg/Kg		120	67 - 130
Xylenes, Total	0.100	0.1188		mg/Kg		119	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		61 - 130
Dibromofluoromethane	103		68 - 140
Toluene-d8 (Surr)	107		50 - 130
4-Bromofluorobenzene	115		57 - 140

Lab Sample ID: LCSD 600-272655/4

Matrix: Solid

Analysis Batch: 272655

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
Benzene	0.0500	0.05851		mg/Kg		117	70 - 131	6	30
Ethylbenzene	0.0500	0.05807		mg/Kg		116	66 - 130	5	30
Toluene	0.0500	0.05753		mg/Kg		115	67 - 130	4	30
Xylenes, Total	0.100	0.1136		mg/Kg		114	63 - 130	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		61 - 130
Dibromofluoromethane	103		68 - 140
Toluene-d8 (Surr)	107		50 - 130
4-Bromofluorobenzene	114		57 - 140

Eurofins TestAmerica, Houston

QC Sample Results

Client: CH2M Hill, Inc.
Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Job ID: 600-190340-1

Method: 2540B - Percent Moisture

Lab Sample ID: 600-190340-9 DU				Client Sample ID: NFP - MW55-34-35-08152019			
Matrix: Solid				Prep Type: Total/NA			
Analysis Batch: 272341							
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD Limit
Percent Moisture	17.4		16.5		%		5 20
Percent Solids	82.6		83.5		%		1 20

QC Association Summary

Client: CH2M Hill, Inc.

Job ID: 600-190340-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

GC/MS VOA

Analysis Batch: 272250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190340-1	NFP - TB02 - 08152019	Total/NA	Water	8260B	
MB 600-272250/6	Method Blank	Total/NA	Water	8260B	
LCS 600-272250/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-272250/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 272655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190340-2	NFP - MW55-10-11-08152019	Total/NA	Solid	8260B	272662
600-190340-3	NFP - MW55-19-20-08152019	Total/NA	Solid	8260B	272662
600-190340-4	NFP - MW55-29-30-08152019	Total/NA	Solid	8260B	272662
600-190340-5	NFP - MW49-01-02-08152019	Total/NA	Solid	8260B	272662
600-190340-6	NFP - MW49-01-02-08152019-2	Total/NA	Solid	8260B	272662
600-190340-7	NFP - MW56-01-02-08152019	Total/NA	Solid	8260B	272662
600-190340-8	NFP - MW53-01-02-08152019	Total/NA	Solid	8260B	272662
600-190340-9	NFP - MW55-34-35-08152019	Total/NA	Solid	8260B	272662
MB 600-272655/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-272655/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-272655/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

Prep Batch: 272662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190340-2	NFP - MW55-10-11-08152019	Total/NA	Solid	5035_ASP	
600-190340-3	NFP - MW55-19-20-08152019	Total/NA	Solid	5035_ASP	
600-190340-4	NFP - MW55-29-30-08152019	Total/NA	Solid	5035_ASP	
600-190340-5	NFP - MW49-01-02-08152019	Total/NA	Solid	5035_ASP	
600-190340-6	NFP - MW49-01-02-08152019-2	Total/NA	Solid	5035_ASP	
600-190340-7	NFP - MW56-01-02-08152019	Total/NA	Solid	5035_ASP	
600-190340-8	NFP - MW53-01-02-08152019	Total/NA	Solid	5035_ASP	
600-190340-9	NFP - MW55-34-35-08152019	Total/NA	Solid	5035_ASP	

General Chemistry

Analysis Batch: 272341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190340-2	NFP - MW55-10-11-08152019	Total/NA	Solid	2540B	
600-190340-3	NFP - MW55-19-20-08152019	Total/NA	Solid	2540B	
600-190340-4	NFP - MW55-29-30-08152019	Total/NA	Solid	2540B	
600-190340-5	NFP - MW49-01-02-08152019	Total/NA	Solid	2540B	
600-190340-6	NFP - MW49-01-02-08152019-2	Total/NA	Solid	2540B	
600-190340-7	NFP - MW56-01-02-08152019	Total/NA	Solid	2540B	
600-190340-8	NFP - MW53-01-02-08152019	Total/NA	Solid	2540B	
600-190340-9	NFP - MW55-34-35-08152019	Total/NA	Solid	2540B	
600-190340-9 DU	NFP - MW55-34-35-08152019	Total/NA	Solid	2540B	

Eurofins TestAmerica, Houston

Lab Chronicle

Client: CH2M Hill, Inc.

Job ID: 600-190340-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Client Sample ID: NFP - TB02 - 08152019**Lab Sample ID: 600-190340-1****Date Collected: 08/15/19 08:30****Matrix: Water****Date Received: 08/16/19 09:56**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	272250	08/19/19 10:54	WS1	TAL HOU

Client Sample ID: NFP - MW55-10-11-08152019**Lab Sample ID: 600-190340-2****Date Collected: 08/15/19 11:00****Matrix: Solid****Date Received: 08/16/19 09:56**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272341	08/19/19 15:31	AP	TAL HOU

Client Sample ID: NFP - MW55-10-11-08152019**Lab Sample ID: 600-190340-2****Date Collected: 08/15/19 11:00****Matrix: Solid****Date Received: 08/16/19 09:56****Percent Solids: 95.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			4.75 g	5 mL	272662	08/16/19 17:35	KLV	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272655	08/22/19 19:14	YX1	TAL HOU

Client Sample ID: NFP - MW55-19-20-08152019**Lab Sample ID: 600-190340-3****Date Collected: 08/15/19 11:15****Matrix: Solid****Date Received: 08/16/19 09:56**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272341	08/19/19 15:31	AP	TAL HOU

Client Sample ID: NFP - MW55-19-20-08152019**Lab Sample ID: 600-190340-3****Date Collected: 08/15/19 11:15****Matrix: Solid****Date Received: 08/16/19 09:56****Percent Solids: 93.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.31 g	5 mL	272662	08/16/19 17:35	KLV	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272655	08/22/19 19:47	YX1	TAL HOU

Client Sample ID: NFP - MW55-29-30-08152019**Lab Sample ID: 600-190340-4****Date Collected: 08/15/19 11:25****Matrix: Solid****Date Received: 08/16/19 09:56**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272341	08/19/19 15:31	AP	TAL HOU

Client Sample ID: NFP - MW55-29-30-08152019**Lab Sample ID: 600-190340-4****Date Collected: 08/15/19 11:25****Matrix: Solid****Date Received: 08/16/19 09:56****Percent Solids: 86.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.65 g	5 mL	272662	08/16/19 17:35	KLV	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272655	08/22/19 20:20	YX1	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: CH2M Hill, Inc.

Job ID: 600-190340-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Client Sample ID: NFP - MW49-01-02-08152019

Lab Sample ID: 600-190340-5

Date Collected: 08/15/19 09:45

Matrix: Solid

Date Received: 08/16/19 09:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272341	08/19/19 15:31	AP	TAL HOU

Client Sample ID: NFP - MW49-01-02-08152019

Lab Sample ID: 600-190340-5

Date Collected: 08/15/19 09:45

Matrix: Solid

Date Received: 08/16/19 09:56

Percent Solids: 92.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.67 g	5 mL	272662	08/16/19 17:35	KLK	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272655	08/22/19 20:52	YX1	TAL HOU

Client Sample ID: NFP - MW49-01-02-08152019-2

Lab Sample ID: 600-190340-6

Date Collected: 08/15/19 09:45

Matrix: Solid

Date Received: 08/16/19 09:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272341	08/19/19 15:31	AP	TAL HOU

Client Sample ID: NFP - MW49-01-02-08152019-2

Lab Sample ID: 600-190340-6

Date Collected: 08/15/19 09:45

Matrix: Solid

Date Received: 08/16/19 09:56

Percent Solids: 92.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.83 g	5 mL	272662	08/16/19 17:35	KLK	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272655	08/22/19 21:26	YX1	TAL HOU

Client Sample ID: NFP - MW56-01-02-08152019

Lab Sample ID: 600-190340-7

Date Collected: 08/15/19 10:00

Matrix: Solid

Date Received: 08/16/19 09:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272341	08/19/19 15:31	AP	TAL HOU

Client Sample ID: NFP - MW56-01-02-08152019

Lab Sample ID: 600-190340-7

Date Collected: 08/15/19 10:00

Matrix: Solid

Date Received: 08/16/19 09:56

Percent Solids: 86.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			4.89 g	5 mL	272662	08/16/19 17:35	KLK	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272655	08/22/19 21:57	YX1	TAL HOU

Client Sample ID: NFP - MW53-01-02-08152019

Lab Sample ID: 600-190340-8

Date Collected: 08/15/19 13:00

Matrix: Solid

Date Received: 08/16/19 09:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272341	08/19/19 15:31	AP	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: CH2M Hill, Inc.

Job ID: 600-190340-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Client Sample ID: NFP - MW53-01-02-08152019

Lab Sample ID: 600-190340-8

Date Collected: 08/15/19 13:00

Matrix: Solid

Date Received: 08/16/19 09:56

Percent Solids: 88.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.27 g	5 mL	272662	08/16/19 17:35	KLV	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272655	08/22/19 22:28	YX1	TAL HOU

Client Sample ID: NFP - MW55-34-35-08152019

Lab Sample ID: 600-190340-9

Date Collected: 08/15/19 12:10

Matrix: Solid

Date Received: 08/16/19 09:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272341	08/19/19 15:31	AP	TAL HOU

Client Sample ID: NFP - MW55-34-35-08152019

Lab Sample ID: 600-190340-9

Date Collected: 08/15/19 12:10

Matrix: Solid

Date Received: 08/16/19 09:56

Percent Solids: 82.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.87 g	5 mL	272662	08/16/19 17:35	KLV	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272655	08/22/19 22:59	YX1	TAL HOU

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Accreditation/Certification Summary

Client: CH2M Hill, Inc.

Job ID: 600-190340-1

Project/Site: Kinder Morgan Blanco Field NFP 08/15/19

Laboratory: Eurofins TestAmerica, Houston

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State Program	19-040-0	08-04-20
Louisiana	NELAP	01967	06-30-20
Oklahoma	State Program	2018-052	08-31-19 *
Texas	NELAP	T104704223-18-23	10-31-19
USDA	Federal	P330-18-00130	04-30-21
Utah	NELAP	TX000832019-5	07-31-20

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

Eurofins TestAmerica, Houston

Eurofins TestAmerica, Houston

6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record



Environment Testing
TestAmerica

Ref: S600-70315
Dep: Houston Hub

Date: 08Aug19
Wgt: 10.00 LBS

SHIPPING: 0.00
SPECIAL: 0.00
HANDLING: 0.00
TOTAL: 0.00

DV: 0.00

Svcs: PRIORITY OVERNIGHT Master 4564 1087 3069
TRCK: 4564 1087 3069

Client Information		Lab PM: McDaniel, Bethany A		Carrier Tracking No(s): 4564 1087 3069		COC No: 600-70257-19219.1	
Client Contact: Jeffrey Minchak		E-Mail: bethany.mcdaniel@testamericainc.com		Page: 1 of 1		Job #:	
Company: CH2M Hill, Inc.		Address: 3721 Rutledge Rd. NE Suite B-1		City: Albuquerque		State, Zip: NM, 87109	
Phone: 505-855-5239(Tel)		Email: jeffrey.minchak@jacobs.com		Project Name: Kinder Morgan Bloomfield, NM NFP		Site: Blanco North Place P.t	
PO #: WD293112		WO #:		Project #: 60004617		SSOW#:	
Due Date Requested:		TAT Requested (days):		Analysis Requested		Preservation Codes:	
Sample Identification		Sample Date		Sample Time		Sample Type (G=grab, O=overhead, S=solid, L=liquid, W=water, A=air)	
Sample ID		Sample Date		Sample Time		Sample Type	
NFP-TB02-08152019	8/15/19	0830	Water				
NFP-MW55-10-11-08152019	8/15/19	1100	Solid				
NFP-MW55-19-20-08152019	8/15/19	1115	S				
NFP-MW55-29-30-08152019	8/15/19	1125	S				
NFP-MW49-01-02-08152019	8/15/19	0945	S				
NFP-MW49-01-02-08152019-2	8/15/19	0945	S				
NFP-MW56-01-02-08152019	8/15/19	1000	S				
NFP-MW53-01-02-08152019	8/15/19	1300	S				
NFP-MW55-34-35-08152019	8/15/19	1210	S				
Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological				☐ Return To Client ☐ Disposal By Lab ☐ Archive For Month			
Deliverable Requested: I, II, III, IV, Other (specify)				Special Instructions/QC Requirements:			
Empty Kit Relinquished by:				Time:			
Relinquished by:				Date:			
Relinquished by:				Date:			
Relinquished by:				Date:			
Custody Seals Intact: ☐ Yes ☐ No				Custody Seal No.:			
Custody Temperature(s) °C and Other Remarks:				Cooler Temperature(s) °C and Other Remarks:			

TestAmerica Houston

Lot: 600

190340

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sample Receipt Checklist

JOB NUMBER: _____

Date/Time Received: _____

19 AUG 16 9:56

CLIENT: _____

CH2M Hill

UNPACKED BY: _____

JP

CARRIER/DRIVER: _____

Fedex

Custody Seal Present: ☒ YES ☐ NO

Number of Coolers Received: _____

1

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
BW4	Y / N	Y / N	0.9	678	+0.1	1.0
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? ☒ YES ☐ NOLABORATORY PRESERVATION OF SAMPLES REQUIRED: ☒ NO ☐ YESBase samples are > pH 12: ☐ YES ☐ NOAcid preserved are < pH 2: ☐ YES ☐ NO

pH paper Lot # _____

VOA headspace acceptable (5-6mm): ☐ YES ☐ NO ☒ NA

YES NO

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?

COMMENTS:



600-190: 40 Waybill

FedEx
TRK# 4564 1087 3069
0221

FRI - 16 AUG 10:30A
PRIORITY OVERNIGHT

XH LKSA

77040
TX-US IAH



Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 600-190340-1

Login Number: 190340

List Source: Eurofins TestAmerica, Houston

List Number: 1

Creator: Rubio, Yuri

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
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	1.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.



Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

Laboratory Job ID: 600-190481-1

Client Project/Site: Kinder Morgan Blanco Field NFP 08/19/19
Revision: 1

For:

CH2M Hill, Inc.
3721 Rutledge Rd. NE
Suite B-1
Albuquerque, New Mexico 87109

Attn: Aleeca Forsberg

Authorized for release by:

12/10/2020 11:08:12 AM

Steve Stepanski, Project Mgmt. Assistant
(713)690-4444

steve.stepanski@Eurofinset.com

Designee for

Bethany McDaniel, Senior Project Manager
(713)358-2005

bethany.mcdaniel@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.

Client: CH2M Hill, Inc.

Laboratory Job ID: 600-190481-1

Project/Site: Kinder Morgan Blanco Field NFP 08/19/19

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Case Narrative

Client: CH2M Hill, Inc.
Project/Site: Kinder Morgan Blanco Field NFP 08/19/19

Job ID: 600-190481-1

Job ID: 600-190481-1

Laboratory: Eurofins TestAmerica, Houston

Narrative

Job Narrative 600-190481-1

Comments

This report was revised to a Level 2 deliverable per client's request.

Receipt

The samples were received on 8/20/2019 10:33 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.8° C.

GC/MS VOA

Method(s) 8260B: The following samples were diluted due to the nature of the sample matrix: NFP-MW51-13-14-08192019 (600-190481-3), NFP-MW51-19-20-08192019 (600-190481-4) and NFP-MW51-29-30-08192019 (600-190481-6). Elevated reporting limits (RLs) are provided. Sample IS responses were low in the straight run (5g).

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

General Chemistry

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

Method Summary

Client: CH2M Hill, Inc.

Job ID: 600-190481-1

Project/Site: Kinder Morgan Blanco Field NFP 08/19/19

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
2540B	Percent Moisture	SM20	TAL HOU
5030B	Purge and Trap	SW846	TAL HOU
5035	Closed System Purge & Trap/Field Methanol	SW846	TAL HOU
5035_ASP	Closed System Purge and Trap	SW846	TAL HOU

Protocol References:

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: CH2M Hill, Inc.

Job ID: 600-190481-1

Project/Site: Kinder Morgan Blanco Field NFP 08/19/19

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-190481-1	NFP-TB05-08192019	Water	08/19/19 12:00	08/20/19 10:33	
600-190481-2	NFP-EB04-08192019	Water	08/19/19 12:30	08/20/19 10:33	
600-190481-3	NFP-MW51-13-14-08192019	Solid	08/19/19 13:25	08/20/19 10:33	
600-190481-4	NFP-MW51-19-20-08192019	Solid	08/19/19 13:40	08/20/19 10:33	
600-190481-5	NFP-MW51-19-20-08192019-2	Solid	08/19/19 13:40	08/20/19 10:33	
600-190481-6	NFP-MW51-29-30-08192019	Solid	08/19/19 13:50	08/20/19 10:33	
600-190481-7	NFP-MW51-39-40-08192019	Solid	08/19/19 14:00	08/20/19 10:33	
600-190481-8	NFP-MW51-49-50-08192019	Solid	08/19/19 15:00	08/20/19 10:33	

Client Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190481-1

Project/Site: Kinder Morgan Blanco Field NFP 08/19/19

Client Sample ID: NFP-TB05-08192019

Lab Sample ID: 600-190481-1

Date Collected: 08/19/19 12:00

Matrix: Water

Date Received: 08/20/19 10:33

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			08/20/19 18:18	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			08/20/19 18:18	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			08/20/19 18:18	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			08/20/19 18:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		50 - 134		08/20/19 18:18	1
Dibromofluoromethane	105		62 - 130		08/20/19 18:18	1
Toluene-d8 (Surr)	88		70 - 130		08/20/19 18:18	1
4-Bromofluorobenzene	107		67 - 139		08/20/19 18:18	1

Client Sample ID: NFP-EB04-08192019

Lab Sample ID: 600-190481-2

Date Collected: 08/19/19 12:30

Matrix: Water

Date Received: 08/20/19 10:33

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			08/20/19 18:43	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			08/20/19 18:43	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			08/20/19 18:43	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			08/20/19 18:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		50 - 134		08/20/19 18:43	1
Dibromofluoromethane	102		62 - 130		08/20/19 18:43	1
Toluene-d8 (Surr)	87		70 - 130		08/20/19 18:43	1
4-Bromofluorobenzene	104		67 - 139		08/20/19 18:43	1

Client Sample ID: NFP-MW51-13-14-08192019

Lab Sample ID: 600-190481-3

Date Collected: 08/19/19 13:25

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 98.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00314	U	0.0249	0.00314	mg/Kg	☼	08/24/19 13:00	08/24/19 19:23	1
Ethylbenzene	0.00509	U	0.0249	0.00509	mg/Kg	☼	08/24/19 13:00	08/24/19 19:23	1
Toluene	0.00688	U	0.0249	0.00688	mg/Kg	☼	08/24/19 13:00	08/24/19 19:23	1
Xylenes, Total	0.00563	U	0.0249	0.00563	mg/Kg	☼	08/24/19 13:00	08/24/19 19:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		61 - 130	08/24/19 13:00	08/24/19 19:23	1
Dibromofluoromethane	82		68 - 140	08/24/19 13:00	08/24/19 19:23	1
Toluene-d8 (Surr)	82		50 - 130	08/24/19 13:00	08/24/19 19:23	1
4-Bromofluorobenzene	109		57 - 140	08/24/19 13:00	08/24/19 19:23	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	1.7		1.0	1.0	%			08/21/19 15:30	1
Percent Solids	98.3		1.0	1.0	%			08/21/19 15:30	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190481-1

Project/Site: Kinder Morgan Blanco Field NFP 08/19/19

Client Sample ID: NFP-MW51-19-20-08192019

Lab Sample ID: 600-190481-4

Date Collected: 08/19/19 13:40

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 97.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00322	U	0.0256	0.00322	mg/Kg	☼	08/24/19 13:00	08/24/19 19:46	1
Ethylbenzene	0.00521	U	0.0256	0.00521	mg/Kg	☼	08/24/19 13:00	08/24/19 19:46	1
Toluene	0.00705	U	0.0256	0.00705	mg/Kg	☼	08/24/19 13:00	08/24/19 19:46	1
Xylenes, Total	0.00578	U	0.0256	0.00578	mg/Kg	☼	08/24/19 13:00	08/24/19 19:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	78		61 - 130	08/24/19 13:00	08/24/19 19:46	1
Dibromofluoromethane	82		68 - 140	08/24/19 13:00	08/24/19 19:46	1
Toluene-d8 (Surr)	82		50 - 130	08/24/19 13:00	08/24/19 19:46	1
4-Bromofluorobenzene	108		57 - 140	08/24/19 13:00	08/24/19 19:46	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	2.2		1.0	1.0	%			08/21/19 15:30	1
Percent Solids	97.8		1.0	1.0	%			08/21/19 15:30	1

Client Sample ID: NFP-MW51-19-20-08192019-2

Lab Sample ID: 600-190481-5

Date Collected: 08/19/19 13:40

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 98.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000643	U	0.00510	0.000643	mg/Kg	☼	08/20/19 12:30	08/23/19 18:44	1
Ethylbenzene	0.00104	U	0.00510	0.00104	mg/Kg	☼	08/20/19 12:30	08/23/19 18:44	1
Toluene	0.00141	U	0.00510	0.00141	mg/Kg	☼	08/20/19 12:30	08/23/19 18:44	1
Xylenes, Total	0.00115	U	0.00510	0.00115	mg/Kg	☼	08/20/19 12:30	08/23/19 18:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		61 - 130	08/20/19 12:30	08/23/19 18:44	1
Dibromofluoromethane	96		68 - 140	08/20/19 12:30	08/23/19 18:44	1
Toluene-d8 (Surr)	106		50 - 130	08/20/19 12:30	08/23/19 18:44	1
4-Bromofluorobenzene	119		57 - 140	08/20/19 12:30	08/23/19 18:44	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	2.0		1.0	1.0	%			08/21/19 15:30	1
Percent Solids	98.0		1.0	1.0	%			08/21/19 15:30	1

Client Sample ID: NFP-MW51-29-30-08192019

Lab Sample ID: 600-190481-6

Date Collected: 08/19/19 13:50

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 96.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00313	U	0.0248	0.00313	mg/Kg	☼	08/24/19 13:00	08/24/19 20:10	1
Ethylbenzene	0.00507	U	0.0248	0.00507	mg/Kg	☼	08/24/19 13:00	08/24/19 20:10	1
Toluene	0.00686	U	0.0248	0.00686	mg/Kg	☼	08/24/19 13:00	08/24/19 20:10	1
Xylenes, Total	0.00561	U	0.0248	0.00561	mg/Kg	☼	08/24/19 13:00	08/24/19 20:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77		61 - 130	08/24/19 13:00	08/24/19 20:10	1
Dibromofluoromethane	78		68 - 140	08/24/19 13:00	08/24/19 20:10	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190481-1

Project/Site: Kinder Morgan Blanco Field NFP 08/19/19

Client Sample ID: NFP-MW51-29-30-08192019

Lab Sample ID: 600-190481-6

Date Collected: 08/19/19 13:50

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 96.8

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	83		50 - 130	08/24/19 13:00	08/24/19 20:10	1
4-Bromofluorobenzene	106		57 - 140	08/24/19 13:00	08/24/19 20:10	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.2		1.0	1.0	%			08/21/19 15:30	1
Percent Solids	96.8		1.0	1.0	%			08/21/19 15:30	1

Client Sample ID: NFP-MW51-39-40-08192019

Lab Sample ID: 600-190481-7

Date Collected: 08/19/19 14:00

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 89.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000649	U	0.00515	0.000649	mg/Kg	☼	08/20/19 12:30	08/23/19 15:12	1
Ethylbenzene	0.00105	U	0.00515	0.00105	mg/Kg	☼	08/20/19 12:30	08/23/19 15:12	1
Toluene	0.00174	J	0.00515	0.00142	mg/Kg	☼	08/20/19 12:30	08/23/19 15:12	1
Xylenes, Total	0.0105		0.00515	0.00116	mg/Kg	☼	08/20/19 12:30	08/23/19 15:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		61 - 130	08/20/19 12:30	08/23/19 15:12	1
Dibromofluoromethane	93		68 - 140	08/20/19 12:30	08/23/19 15:12	1
Toluene-d8 (Surr)	106		50 - 130	08/20/19 12:30	08/23/19 15:12	1
4-Bromofluorobenzene	117		57 - 140	08/20/19 12:30	08/23/19 15:12	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.3		1.0	1.0	%			08/21/19 15:30	1
Percent Solids	89.7		1.0	1.0	%			08/21/19 15:30	1

Client Sample ID: NFP-MW51-49-50-08192019

Lab Sample ID: 600-190481-8

Date Collected: 08/19/19 15:00

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 78.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.36		0.424	0.0534	mg/Kg	☼	08/20/19 12:30	08/28/19 21:44	1
Ethylbenzene	1.12		0.424	0.0865	mg/Kg	☼	08/20/19 12:30	08/28/19 21:44	1
Toluene	5.86		0.424	0.117	mg/Kg	☼	08/20/19 12:30	08/28/19 21:44	1
Xylenes, Total	18.2		0.424	0.0958	mg/Kg	☼	08/20/19 12:30	08/28/19 21:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	72		61 - 130	08/20/19 12:30	08/28/19 21:44	1
Dibromofluoromethane	104		68 - 140	08/20/19 12:30	08/28/19 21:44	1
Toluene-d8 (Surr)	111		50 - 130	08/20/19 12:30	08/28/19 21:44	1
4-Bromofluorobenzene	66		57 - 140	08/20/19 12:30	08/28/19 21:44	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21.3		1.0	1.0	%			08/21/19 15:30	1
Percent Solids	78.7		1.0	1.0	%			08/21/19 15:30	1

Eurofins TestAmerica, Houston

Definitions/Glossary

Client: CH2M Hill, Inc.

Job ID: 600-190481-1

Project/Site: Kinder Morgan Blanco Field NFP 08/19/19

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

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)

Surrogate Summary

Client: CH2M Hill, Inc.

Job ID: 600-190481-1

Project/Site: Kinder Morgan Blanco Field NFP 08/19/19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-190481-3	NFP-MW51-13-14-08192019	80	82	82	109
600-190481-4	NFP-MW51-19-20-08192019	78	82	82	108
600-190481-5	NFP-MW51-19-20-08192019-2	109	96	106	119
600-190481-6	NFP-MW51-29-30-08192019	77	78	83	106
600-190481-7	NFP-MW51-39-40-08192019	97	93	106	117
600-190481-8	NFP-MW51-49-50-08192019	72	104	111	66
LCS 600-272770/3	Lab Control Sample	93	104	112	116
LCS 600-272844/3	Lab Control Sample	77	83	81	110
LCS 600-273036/1-A	Lab Control Sample	77	112	95	97
LCSD 600-272770/4	Lab Control Sample Dup	90	102	108	112
LCSD 600-272844/4	Lab Control Sample Dup	74	82	82	107
LCSD 600-273036/2-A	Lab Control Sample Dup	78	111	96	92
MB 600-272770/6	Method Blank	97	96	106	117
MB 600-272844/6	Method Blank	71	78	82	104
MB 600-273036/3-A	Method Blank	77	110	109	64
Surrogate Legend					
DCA = 1,2-Dichloroethane-d4 (Surr)					
DBFM = Dibromofluoromethane					
TOL = Toluene-d8 (Surr)					
BFB = 4-Bromofluorobenzene					

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (50-134)	DBFM (62-130)	TOL (70-130)	BFB (67-139)
600-190481-1	NFP-TB05-08192019	105	105	88	107
600-190481-2	NFP-EB04-08192019	102	102	87	104
LCS 600-272371/3	Lab Control Sample	110	111	96	105
LCSD 600-272371/4	Lab Control Sample Dup	104	111	97	106
MB 600-272371/15	Method Blank	110	109	86	101
Surrogate Legend					
DCA = 1,2-Dichloroethane-d4 (Surr)					
DBFM = Dibromofluoromethane					
TOL = Toluene-d8 (Surr)					
BFB = 4-Bromofluorobenzene					

Eurofins TestAmerica, Houston

QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190481-1

Project/Site: Kinder Morgan Blanco Field NFP 08/19/19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-272371/15

Matrix: Water

Analysis Batch: 272371

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			08/20/19 14:51	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			08/20/19 14:51	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			08/20/19 14:51	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			08/20/19 14:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		50 - 134		08/20/19 14:51	1
Dibromofluoromethane	109		62 - 130		08/20/19 14:51	1
Toluene-d8 (Surr)	86		70 - 130		08/20/19 14:51	1
4-Bromofluorobenzene	101		67 - 139		08/20/19 14:51	1

Lab Sample ID: LCS 600-272371/3

Matrix: Water

Analysis Batch: 272371

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.01251		mg/L		125	70 - 130
Ethylbenzene	0.0100	0.01165		mg/L		117	70 - 130
Toluene	0.0100	0.01167		mg/L		117	70 - 130
Xylenes, Total	0.0200	0.02372		mg/L		119	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	110		50 - 134
Dibromofluoromethane	111		62 - 130
Toluene-d8 (Surr)	96		70 - 130
4-Bromofluorobenzene	105		67 - 139

Lab Sample ID: LCSD 600-272371/4

Matrix: Water

Analysis Batch: 272371

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
Benzene	0.0100	0.01193		mg/L		119	70 - 130	5	20
Ethylbenzene	0.0100	0.01138		mg/L		114	70 - 130	2	20
Toluene	0.0100	0.01113		mg/L		111	70 - 130	5	20
Xylenes, Total	0.0200	0.02240		mg/L		112	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		50 - 134
Dibromofluoromethane	111		62 - 130
Toluene-d8 (Surr)	97		70 - 130
4-Bromofluorobenzene	106		67 - 139

Eurofins TestAmerica, Houston

QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190481-1

Project/Site: Kinder Morgan Blanco Field NFP 08/19/19

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

Lab Sample ID: MB 600-272770/6

Matrix: Solid

Analysis Batch: 272770

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			08/23/19 14:07	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			08/23/19 14:07	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			08/23/19 14:07	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			08/23/19 14:07	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		61 - 130		08/23/19 14:07	1
Dibromofluoromethane	96		68 - 140		08/23/19 14:07	1
Toluene-d8 (Surr)	106		50 - 130		08/23/19 14:07	1
4-Bromofluorobenzene	117		57 - 140		08/23/19 14:07	1

Lab Sample ID: LCS 600-272770/3

Matrix: Solid

Analysis Batch: 272770

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.06398		mg/Kg		128	70 - 131
Ethylbenzene	0.0500	0.06142		mg/Kg		123	66 - 130
Toluene	0.0500	0.06201		mg/Kg		124	67 - 130
Xylenes, Total	0.100	0.1203		mg/Kg		120	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		61 - 130
Dibromofluoromethane	104		68 - 140
Toluene-d8 (Surr)	112		50 - 130
4-Bromofluorobenzene	116		57 - 140

Lab Sample ID: LCSD 600-272770/4

Matrix: Solid

Analysis Batch: 272770

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
Benzene	0.0500	0.05674		mg/Kg		113	70 - 131	12	30
Ethylbenzene	0.0500	0.05513		mg/Kg		110	66 - 130	11	30
Toluene	0.0500	0.05477		mg/Kg		110	67 - 130	12	30
Xylenes, Total	0.100	0.1090		mg/Kg		109	63 - 130	10	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	90		61 - 130
Dibromofluoromethane	102		68 - 140
Toluene-d8 (Surr)	108		50 - 130
4-Bromofluorobenzene	112		57 - 140

Eurofins TestAmerica, Houston

QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190481-1

Project/Site: Kinder Morgan Blanco Field NFP 08/19/19

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

Lab Sample ID: MB 600-272844/6

Matrix: Solid

Analysis Batch: 272844

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			08/24/19 14:16	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			08/24/19 14:16	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			08/24/19 14:16	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			08/24/19 14:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	71		61 - 130		08/24/19 14:16	1
Dibromofluoromethane	78		68 - 140		08/24/19 14:16	1
Toluene-d8 (Surr)	82		50 - 130		08/24/19 14:16	1
4-Bromofluorobenzene	104		57 - 140		08/24/19 14:16	1

Lab Sample ID: LCS 600-272844/3

Matrix: Solid

Analysis Batch: 272844

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.05620		mg/Kg		112	70 - 131
Ethylbenzene	0.0500	0.04722		mg/Kg		94	66 - 130
Toluene	0.0500	0.04879		mg/Kg		98	67 - 130
Xylenes, Total	0.100	0.09642		mg/Kg		96	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	77		61 - 130
Dibromofluoromethane	83		68 - 140
Toluene-d8 (Surr)	81		50 - 130
4-Bromofluorobenzene	110		57 - 140

Lab Sample ID: LCSD 600-272844/4

Matrix: Solid

Analysis Batch: 272844

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
Benzene	0.0500	0.05821		mg/Kg		116	70 - 131	4	30
Ethylbenzene	0.0500	0.04814		mg/Kg		96	66 - 130	2	30
Toluene	0.0500	0.04951		mg/Kg		99	67 - 130	1	30
Xylenes, Total	0.100	0.09765		mg/Kg		98	63 - 130	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	74		61 - 130
Dibromofluoromethane	82		68 - 140
Toluene-d8 (Surr)	82		50 - 130
4-Bromofluorobenzene	107		57 - 140

Eurofins TestAmerica, Houston

QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190481-1

Project/Site: Kinder Morgan Blanco Field NFP 08/19/19

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

Lab Sample ID: MB 600-273036/3-A

Matrix: Solid

Analysis Batch: 273192

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 273036

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0788	U	0.625	0.0788	mg/Kg		08/28/19 10:45	08/28/19 15:50	1
Ethylbenzene	0.128	U	0.625	0.128	mg/Kg		08/28/19 10:45	08/28/19 15:50	1
Toluene	0.173	U	0.625	0.173	mg/Kg		08/28/19 10:45	08/28/19 15:50	1
Xylenes, Total	0.141	U	0.625	0.141	mg/Kg		08/28/19 10:45	08/28/19 15:50	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77		61 - 130	08/28/19 10:45	08/28/19 15:50	1
Dibromofluoromethane	110		68 - 140	08/28/19 10:45	08/28/19 15:50	1
Toluene-d8 (Surr)	109		50 - 130	08/28/19 10:45	08/28/19 15:50	1
4-Bromofluorobenzene	64		57 - 140	08/28/19 10:45	08/28/19 15:50	1

Lab Sample ID: LCS 600-273036/1-A

Matrix: Solid

Analysis Batch: 273192

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 273036

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.25	6.164		mg/Kg		99	70 - 131
Ethylbenzene	6.25	7.253		mg/Kg		116	66 - 130
Toluene	6.25	6.307		mg/Kg		101	67 - 130
Xylenes, Total	12.5	13.88		mg/Kg		111	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	77		61 - 130
Dibromofluoromethane	112		68 - 140
Toluene-d8 (Surr)	95		50 - 130
4-Bromofluorobenzene	97		57 - 140

Lab Sample ID: LCSD 600-273036/2-A

Matrix: Solid

Analysis Batch: 273192

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 273036

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	6.25	6.074		mg/Kg		97	70 - 131	1	30
Ethylbenzene	6.25	7.324		mg/Kg		117	66 - 130	1	30
Toluene	6.25	6.426		mg/Kg		103	67 - 130	2	30
Xylenes, Total	12.5	13.92		mg/Kg		111	63 - 130	0	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	78		61 - 130
Dibromofluoromethane	111		68 - 140
Toluene-d8 (Surr)	96		50 - 130
4-Bromofluorobenzene	92		57 - 140

Eurofins TestAmerica, Houston

QC Sample Results

Client: CH2M Hill, Inc.
Project/Site: Kinder Morgan Blanco Field NFP 08/19/19

Job ID: 600-190481-1

Method: 2540B - Percent Moisture

Lab Sample ID: 600-190481-3 DU				Client Sample ID: NFP-MW51-13-14-08192019			
Matrix: Solid				Prep Type: Total/NA			
Analysis Batch: 272587							
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD Limit
Percent Moisture	1.7		1.7		%		4 20
Percent Solids	98.3		98.3		%		0.07 20

QC Association Summary

Client: CH2M Hill, Inc.

Job ID: 600-190481-1

Project/Site: Kinder Morgan Blanco Field NFP 08/19/19

GC/MS VOA

Analysis Batch: 272371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190481-1	NFP-TB05-08192019	Total/NA	Water	8260B	
600-190481-2	NFP-EB04-08192019	Total/NA	Water	8260B	
MB 600-272371/15	Method Blank	Total/NA	Water	8260B	
LCS 600-272371/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-272371/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Prep Batch: 272664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190481-5	NFP-MW51-19-20-08192019-2	Total/NA	Solid	5035_ASP	
600-190481-7	NFP-MW51-39-40-08192019	Total/NA	Solid	5035_ASP	

Analysis Batch: 272770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190481-5	NFP-MW51-19-20-08192019-2	Total/NA	Solid	8260B	272664
600-190481-7	NFP-MW51-39-40-08192019	Total/NA	Solid	8260B	272664
MB 600-272770/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-272770/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-272770/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

Analysis Batch: 272844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190481-3	NFP-MW51-13-14-08192019	Total/NA	Solid	8260B	272848
600-190481-4	NFP-MW51-19-20-08192019	Total/NA	Solid	8260B	272848
600-190481-6	NFP-MW51-29-30-08192019	Total/NA	Solid	8260B	272848
MB 600-272844/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-272844/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-272844/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

Prep Batch: 272848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190481-3	NFP-MW51-13-14-08192019	Total/NA	Solid	5035_ASP	
600-190481-4	NFP-MW51-19-20-08192019	Total/NA	Solid	5035_ASP	
600-190481-6	NFP-MW51-29-30-08192019	Total/NA	Solid	5035_ASP	

Prep Batch: 273036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 600-273036/3-A	Method Blank	Total/NA	Solid	5035	
LCS 600-273036/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 600-273036/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 273187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190481-8	NFP-MW51-49-50-08192019	Total/NA	Solid	5035	

Analysis Batch: 273192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190481-8	NFP-MW51-49-50-08192019	Total/NA	Solid	8260B	273187
MB 600-273036/3-A	Method Blank	Total/NA	Solid	8260B	273036
LCS 600-273036/1-A	Lab Control Sample	Total/NA	Solid	8260B	273036
LCSD 600-273036/2-A	Lab Control Sample Dup	Total/NA	Solid	8260B	273036

Eurofins TestAmerica, Houston

QC Association Summary

Client: CH2M Hill, Inc.
Project/Site: Kinder Morgan Blanco Field NFP 08/19/19

Job ID: 600-190481-1

General Chemistry

Analysis Batch: 272587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190481-3	NFP-MW51-13-14-08192019	Total/NA	Solid	2540B	
600-190481-4	NFP-MW51-19-20-08192019	Total/NA	Solid	2540B	
600-190481-5	NFP-MW51-19-20-08192019-2	Total/NA	Solid	2540B	
600-190481-6	NFP-MW51-29-30-08192019	Total/NA	Solid	2540B	
600-190481-7	NFP-MW51-39-40-08192019	Total/NA	Solid	2540B	
600-190481-8	NFP-MW51-49-50-08192019	Total/NA	Solid	2540B	
600-190481-3 DU	NFP-MW51-13-14-08192019	Total/NA	Solid	2540B	

Lab Chronicle

Client: CH2M Hill, Inc.

Job ID: 600-190481-1

Project/Site: Kinder Morgan Blanco Field NFP 08/19/19

Client Sample ID: NFP-TB05-08192019

Lab Sample ID: 600-190481-1

Date Collected: 08/19/19 12:00

Matrix: Water

Date Received: 08/20/19 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	272371	08/20/19 18:18	WS1	TAL HOU

Client Sample ID: NFP-EB04-08192019

Lab Sample ID: 600-190481-2

Date Collected: 08/19/19 12:30

Matrix: Water

Date Received: 08/20/19 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	272371	08/20/19 18:43	WS1	TAL HOU

Client Sample ID: NFP-MW51-13-14-08192019

Lab Sample ID: 600-190481-3

Date Collected: 08/19/19 13:25

Matrix: Solid

Date Received: 08/20/19 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272587	08/21/19 15:30	AP	TAL HOU

Client Sample ID: NFP-MW51-13-14-08192019

Lab Sample ID: 600-190481-3

Date Collected: 08/19/19 13:25

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 98.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			1.02 g	5 mL	272848	08/24/19 13:00	KLV	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272844	08/24/19 19:23	WS1	TAL HOU

Client Sample ID: NFP-MW51-19-20-08192019

Lab Sample ID: 600-190481-4

Date Collected: 08/19/19 13:40

Matrix: Solid

Date Received: 08/20/19 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272587	08/21/19 15:30	AP	TAL HOU

Client Sample ID: NFP-MW51-19-20-08192019

Lab Sample ID: 600-190481-4

Date Collected: 08/19/19 13:40

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 97.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			1.00 g	5 mL	272848	08/24/19 13:00	KLV	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272844	08/24/19 19:46	WS1	TAL HOU

Client Sample ID: NFP-MW51-19-20-08192019-2

Lab Sample ID: 600-190481-5

Date Collected: 08/19/19 13:40

Matrix: Solid

Date Received: 08/20/19 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272587	08/21/19 15:30	AP	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: CH2M Hill, Inc.

Job ID: 600-190481-1

Project/Site: Kinder Morgan Blanco Field NFP 08/19/19

Client Sample ID: NFP-MW51-19-20-08192019-2

Lab Sample ID: 600-190481-5

Date Collected: 08/19/19 13:40

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 98.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5 g	5 mL	272664	08/20/19 12:30	KLV	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272770	08/23/19 18:44	YX1	TAL HOU

Client Sample ID: NFP-MW51-29-30-08192019

Lab Sample ID: 600-190481-6

Date Collected: 08/19/19 13:50

Matrix: Solid

Date Received: 08/20/19 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272587	08/21/19 15:30	AP	TAL HOU

Client Sample ID: NFP-MW51-29-30-08192019

Lab Sample ID: 600-190481-6

Date Collected: 08/19/19 13:50

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 96.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			1.04 g	5 mL	272848	08/24/19 13:00	KLV	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272844	08/24/19 20:10	WS1	TAL HOU

Client Sample ID: NFP-MW51-39-40-08192019

Lab Sample ID: 600-190481-7

Date Collected: 08/19/19 14:00

Matrix: Solid

Date Received: 08/20/19 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272587	08/21/19 15:30	AP	TAL HOU

Client Sample ID: NFP-MW51-39-40-08192019

Lab Sample ID: 600-190481-7

Date Collected: 08/19/19 14:00

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 89.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.41 g	5 mL	272664	08/20/19 12:30	KLV	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272770	08/23/19 15:12	YX1	TAL HOU

Client Sample ID: NFP-MW51-49-50-08192019

Lab Sample ID: 600-190481-8

Date Collected: 08/19/19 15:00

Matrix: Solid

Date Received: 08/20/19 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272587	08/21/19 15:30	AP	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: CH2M Hill, Inc.

Job ID: 600-190481-1

Project/Site: Kinder Morgan Blanco Field NFP 08/19/19

Client Sample ID: NFP-MW51-49-50-08192019

Lab Sample ID: 600-190481-8

Date Collected: 08/19/19 15:00

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 78.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.46 g	5 mL	273187	08/20/19 12:30	KLK	TAL HOU
Total/NA	Analysis	8260B		1	100 uL	5 mL	273192	08/28/19 21:44	KLK	TAL HOU

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Accreditation/Certification Summary

Client: CH2M Hill, Inc.

Job ID: 600-190481-1

Project/Site: Kinder Morgan Blanco Field NFP 08/19/19

Laboratory: Eurofins TestAmerica, Houston

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State Program	19-040-0	08-04-20
Louisiana	NELAP	01967	06-30-20
Texas	NELAP	T104704223-18-23	10-31-19
USDA	Federal	P330-18-00130	04-30-21
Utah	NELAP	TX000832019-5	07-31-20

Eurofins TestAmerica, Houston

6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record



Environment Testing
TestAmerica

Client Information		Lab PM:		Carrier Tracking No(s):		COC No:	
Client Contact: Jeffrey Minchak Company: CH2M Hill, Inc. Address: 3721 Rutledge Rd. NE Suite B-1 City: Albuquerque State, Zip: NM, 87109 Phone: 505-855-5239(Tel) Email: jeffrey.minchak@jacobs.com Project Name: Kinder Morgan Bloomfield, NM NFP Site: Blanco Rock Place P.7		McDaniel, Bethany A E-Mail: bethany.mcdaniel@testamerica.com		4564 1087 2290		600-70257-19219.1 Page 1 of 1	
Due Date Requested:		TAT Requested (days):		Analysis Requested		Job #:	
PO #:		WD293112		8270C_LL - SemiVolatiles - Target Compound List		Pre	
WO #:		60004617		8260B_LL - Volatiles - Target Compound List		A-	
Project #:		SSOW#:		9040B - pH		B-	
				1010 - Flashpoint		C-	
				8260B_LL - Volatiles - Target Compound List		D-	
				8270C_LL - SemiVolatiles - Target Compound List		E-	
				Perform MS/MSD (Yes or No)		F-	
				Field Filtered Sample (Yes or No)		G-	
				Matrix		H-	
				Sample Type (C=Comp, G=grab)		I-	
				Preservation Code:		J-	
				Sample Date		K-	
				Sample Time		L-	
						M-	
						N-	
						O-	
						P-	
						Q-	
						R-	
						S-	
						T-	
						U-	
						V-	
						W-	
						X-	
						Y-	
						Z-	
						aa	
						ab	
						ac	
						ad	
						ae	
						af	
						ag	
						ah	
						ai	
						aj	
						ak	
						al	
						am	
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TestAmerica Houston

Loc: 600
190481TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Receipt Checkl

JOB NUMBER:

UNPACKED BY:

Date/Time Received:

CLIENT:

CARRIER/DRIVER:

Custody Seal Present:

☒ YES☐ NO

Number of Coolers Received: _____

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
GW	Y / N	Y / N	3.9	678	+0.1	4.0
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice?

☒ YES☐ NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED:

☒ NO☐ YES

Base samples are >pH 12:

☐ YES☐ NO

Acid preserved are <pH 2:

☐ YES☐ NO

pH paper Lot # _____

VOA headspace acceptable (5-6mm):

☒ YES☐ NO☐ NA

YES NO

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?

☒ YES☐ NO

COMMENTS:

Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 600-190481-1

Login Number: 190481

List Source: Eurofins TestAmerica, Houston

List Number: 1

Creator: Crafton, Tommie S

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
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	3.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.



Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

Laboratory Job ID: 600-190487-1

Client Project/Site: Kinder Morgan Blanco Field NFP 08/17/19
Revision: 1

For:

CH2M Hill, Inc.
3721 Rutledge Rd. NE
Suite B-1
Albuquerque, New Mexico 87109

Attn: Aleeca Forsberg

Authorized for release by:

12/10/2020 10:41:52 AM

Steve Stepanski, Project Mgmt. Assistant
(713)690-4444

steve.stepanski@Eurofinset.com

Designee for

Bethany McDaniel, Senior Project Manager
(713)358-2005

bethany.mcdaniel@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.

Client: CH2M Hill, Inc.

Laboratory Job ID: 600-190487-1

Project/Site: Kinder Morgan Blanco Field NFP 08/17/19

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Case Narrative

Client: CH2M Hill, Inc.
Project/Site: Kinder Morgan Blanco Field NFP 08/17/19

Job ID: 600-190487-1

Job ID: 600-190487-1

Laboratory: Eurofins TestAmerica, Houston

Narrative

Job Narrative 600-190487-1

Comments

This report was revised to a Level 2 deliverable per client's request.

Receipt

The samples were received on 8/20/2019 10:33 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were -9.9° C and 3.8° C.

GC/MS VOA

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

General Chemistry

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

Method Summary

Client: CH2M Hill, Inc.

Job ID: 600-190487-1

Project/Site: Kinder Morgan Blanco Field NFP 08/17/19

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
2540B	Percent Moisture	SM20	TAL HOU
5030B	Purge and Trap	SW846	TAL HOU
5035_ASP	Closed System Purge and Trap	SW846	TAL HOU

Protocol References:

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Eurofins TestAmerica, Houston

Sample Summary

Client: CH2M Hill, Inc.

Job ID: 600-190487-1

Project/Site: Kinder Morgan Blanco Field NFP 08/17/19

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-190487-1	NFP-TB04-08172019	Water	08/17/19 09:00	08/20/19 10:33	
600-190487-2	NFP-MW56-41-42-08172019	Solid	08/17/19 09:20	08/20/19 10:33	
600-190487-3	NFP-EB02-08172019	Water	08/17/19 14:30	08/20/19 10:33	
600-190487-4	NFP-MW49-14-15-08172019	Solid	08/17/19 15:05	08/20/19 10:33	
600-190487-5	NFP-MW49-19-20-08172019	Solid	08/17/19 15:15	08/20/19 10:33	
600-190487-6	NFP-MW49-29-30-08172019	Solid	08/17/19 15:25	08/20/19 10:33	
600-190487-7	NFP-MW49-39-40-08172019	Solid	08/17/19 16:10	08/20/19 10:33	
600-190487-8	NFP-MW49-49-50-08172019	Solid	08/17/19 16:40	08/20/19 10:33	
600-190487-9	NFP-MW49-56-57-08172019	Solid	08/17/19 17:45	08/20/19 10:33	

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.
Project/Site: Kinder Morgan Blanco Field NFP 08/17/19

Job ID: 600-190487-1

Client Sample ID: NFP-TB04-08172019

Lab Sample ID: 600-190487-1

Date Collected: 08/17/19 09:00

Matrix: Water

Date Received: 08/20/19 10:33

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			08/20/19 19:10	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			08/20/19 19:10	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			08/20/19 19:10	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			08/20/19 19:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		50 - 134		08/20/19 19:10	1
Dibromofluoromethane	100		62 - 130		08/20/19 19:10	1
Toluene-d8 (Surr)	89		70 - 130		08/20/19 19:10	1
4-Bromofluorobenzene	105		67 - 139		08/20/19 19:10	1

Client Sample ID: NFP-MW56-41-42-08172019

Lab Sample ID: 600-190487-2

Date Collected: 08/17/19 09:20

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 79.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000748	U	0.00594	0.000748	mg/Kg	✱	08/20/19 14:00	08/24/19 20:33	1
Ethylbenzene	0.00121	U	0.00594	0.00121	mg/Kg	✱	08/20/19 14:00	08/24/19 20:33	1
Toluene	0.00164	U	0.00594	0.00164	mg/Kg	✱	08/20/19 14:00	08/24/19 20:33	1
Xylenes, Total	0.00134	U	0.00594	0.00134	mg/Kg	✱	08/20/19 14:00	08/24/19 20:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		61 - 130	08/20/19 14:00	08/24/19 20:33	1
Dibromofluoromethane	85		68 - 140	08/20/19 14:00	08/24/19 20:33	1
Toluene-d8 (Surr)	82		50 - 130	08/20/19 14:00	08/24/19 20:33	1
4-Bromofluorobenzene	109		57 - 140	08/20/19 14:00	08/24/19 20:33	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.1		1.0	1.0	%			08/21/19 15:30	1
Percent Solids	79.9		1.0	1.0	%			08/21/19 15:30	1

Client Sample ID: NFP-EB02-08172019

Lab Sample ID: 600-190487-3

Date Collected: 08/17/19 14:30

Matrix: Water

Date Received: 08/20/19 10:33

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			08/20/19 19:36	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			08/20/19 19:36	1
Toluene	0.000258	J	0.00100	0.000198	mg/L			08/20/19 19:36	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			08/20/19 19:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		50 - 134		08/20/19 19:36	1
Dibromofluoromethane	111		62 - 130		08/20/19 19:36	1
Toluene-d8 (Surr)	89		70 - 130		08/20/19 19:36	1
4-Bromofluorobenzene	102		67 - 139		08/20/19 19:36	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190487-1

Project/Site: Kinder Morgan Blanco Field NFP 08/17/19

Client Sample ID: NFP-MW49-14-15-08172019

Lab Sample ID: 600-190487-4

Date Collected: 08/17/19 15:05

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 95.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000625	U	0.00496	0.000625	mg/Kg	☼	08/20/19 14:00	08/23/19 19:41	1
Ethylbenzene	0.00101	U	0.00496	0.00101	mg/Kg	☼	08/20/19 14:00	08/23/19 19:41	1
Toluene	0.00137	U	0.00496	0.00137	mg/Kg	☼	08/20/19 14:00	08/23/19 19:41	1
Xylenes, Total	0.00112	U	0.00496	0.00112	mg/Kg	☼	08/20/19 14:00	08/23/19 19:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		61 - 130	08/20/19 14:00	08/23/19 19:41	1
Dibromofluoromethane	97		68 - 140	08/20/19 14:00	08/23/19 19:41	1
Toluene-d8 (Surr)	105		50 - 130	08/20/19 14:00	08/23/19 19:41	1
4-Bromofluorobenzene	119		57 - 140	08/20/19 14:00	08/23/19 19:41	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.3		1.0	1.0	%			08/21/19 15:30	1
Percent Solids	95.7		1.0	1.0	%			08/21/19 15:30	1

Client Sample ID: NFP-MW49-19-20-08172019

Lab Sample ID: 600-190487-5

Date Collected: 08/17/19 15:15

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 95.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000612	U	0.00486	0.000612	mg/Kg	☼	08/20/19 14:00	08/23/19 20:10	1
Ethylbenzene	0.000991	U	0.00486	0.000991	mg/Kg	☼	08/20/19 14:00	08/23/19 20:10	1
Toluene	0.00134	U	0.00486	0.00134	mg/Kg	☼	08/20/19 14:00	08/23/19 20:10	1
Xylenes, Total	0.00110	U	0.00486	0.00110	mg/Kg	☼	08/20/19 14:00	08/23/19 20:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		61 - 130	08/20/19 14:00	08/23/19 20:10	1
Dibromofluoromethane	94		68 - 140	08/20/19 14:00	08/23/19 20:10	1
Toluene-d8 (Surr)	107		50 - 130	08/20/19 14:00	08/23/19 20:10	1
4-Bromofluorobenzene	119		57 - 140	08/20/19 14:00	08/23/19 20:10	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	4.3		1.0	1.0	%			08/21/19 15:30	1
Percent Solids	95.7		1.0	1.0	%			08/21/19 15:30	1

Client Sample ID: NFP-MW49-29-30-08172019

Lab Sample ID: 600-190487-6

Date Collected: 08/17/19 15:25

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 89.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000599	U	0.00476	0.000599	mg/Kg	☼	08/20/19 14:00	08/23/19 20:38	1
Ethylbenzene	0.000970	U	0.00476	0.000970	mg/Kg	☼	08/20/19 14:00	08/23/19 20:38	1
Toluene	0.00131	U	0.00476	0.00131	mg/Kg	☼	08/20/19 14:00	08/23/19 20:38	1
Xylenes, Total	0.00107	U	0.00476	0.00107	mg/Kg	☼	08/20/19 14:00	08/23/19 20:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		61 - 130	08/20/19 14:00	08/23/19 20:38	1
Dibromofluoromethane	93		68 - 140	08/20/19 14:00	08/23/19 20:38	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190487-1

Project/Site: Kinder Morgan Blanco Field NFP 08/17/19

Client Sample ID: NFP-MW49-29-30-08172019

Lab Sample ID: 600-190487-6

Date Collected: 08/17/19 15:25

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 89.2

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	107		50 - 130	08/20/19 14:00	08/23/19 20:38	1
4-Bromofluorobenzene	119		57 - 140	08/20/19 14:00	08/23/19 20:38	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.8		1.0	1.0	%			08/21/19 15:30	1
Percent Solids	89.2		1.0	1.0	%			08/21/19 15:30	1

Client Sample ID: NFP-MW49-39-40-08172019

Lab Sample ID: 600-190487-7

Date Collected: 08/17/19 16:10

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 96.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000644	U	0.00511	0.000644	mg/Kg	☼	08/20/19 14:00	08/23/19 21:06	1
Ethylbenzene	0.00104	U	0.00511	0.00104	mg/Kg	☼	08/20/19 14:00	08/23/19 21:06	1
Toluene	0.00141	U	0.00511	0.00141	mg/Kg	☼	08/20/19 14:00	08/23/19 21:06	1
Xylenes, Total	0.00116	U	0.00511	0.00116	mg/Kg	☼	08/20/19 14:00	08/23/19 21:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		61 - 130	08/20/19 14:00	08/23/19 21:06	1
Dibromofluoromethane	95		68 - 140	08/20/19 14:00	08/23/19 21:06	1
Toluene-d8 (Surr)	107		50 - 130	08/20/19 14:00	08/23/19 21:06	1
4-Bromofluorobenzene	120		57 - 140	08/20/19 14:00	08/23/19 21:06	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.9		1.0	1.0	%			08/21/19 15:30	1
Percent Solids	96.1		1.0	1.0	%			08/21/19 15:30	1

Client Sample ID: NFP-MW49-49-50-08172019

Lab Sample ID: 600-190487-8

Date Collected: 08/17/19 16:40

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 86.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000634	U	0.00503	0.000634	mg/Kg	☼	08/20/19 14:00	08/23/19 21:34	1
Ethylbenzene	0.00103	U	0.00503	0.00103	mg/Kg	☼	08/20/19 14:00	08/23/19 21:34	1
Toluene	0.00139	U	0.00503	0.00139	mg/Kg	☼	08/20/19 14:00	08/23/19 21:34	1
Xylenes, Total	0.00114	U	0.00503	0.00114	mg/Kg	☼	08/20/19 14:00	08/23/19 21:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		61 - 130	08/20/19 14:00	08/23/19 21:34	1
Dibromofluoromethane	92		68 - 140	08/20/19 14:00	08/23/19 21:34	1
Toluene-d8 (Surr)	107		50 - 130	08/20/19 14:00	08/23/19 21:34	1
4-Bromofluorobenzene	119		57 - 140	08/20/19 14:00	08/23/19 21:34	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.3		1.0	1.0	%			08/21/19 15:30	1
Percent Solids	86.7		1.0	1.0	%			08/21/19 15:30	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190487-1

Project/Site: Kinder Morgan Blanco Field NFP 08/17/19

Client Sample ID: NFP-MW49-56-57-08172019

Lab Sample ID: 600-190487-9

Date Collected: 08/17/19 17:45

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 93.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000626	U	0.00497	0.000626	mg/Kg	☼	08/20/19 14:00	08/23/19 22:02	1
Ethylbenzene	0.00101	U	0.00497	0.00101	mg/Kg	☼	08/20/19 14:00	08/23/19 22:02	1
Toluene	0.00137	U	0.00497	0.00137	mg/Kg	☼	08/20/19 14:00	08/23/19 22:02	1
Xylenes, Total	0.00112	U	0.00497	0.00112	mg/Kg	☼	08/20/19 14:00	08/23/19 22:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		61 - 130	08/20/19 14:00	08/23/19 22:02	1
Dibromofluoromethane	94		68 - 140	08/20/19 14:00	08/23/19 22:02	1
Toluene-d8 (Surr)	107		50 - 130	08/20/19 14:00	08/23/19 22:02	1
4-Bromofluorobenzene	118		57 - 140	08/20/19 14:00	08/23/19 22:02	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	6.8		1.0	1.0	%	-		08/21/19 15:30	1
Percent Solids	93.2		1.0	1.0	%			08/21/19 15:30	1

Eurofins TestAmerica, Houston

Definitions/Glossary

Client: CH2M Hill, Inc.

Job ID: 600-190487-1

Project/Site: Kinder Morgan Blanco Field NFP 08/17/19

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

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)

Surrogate Summary

Client: CH2M Hill, Inc.

Job ID: 600-190487-1

Project/Site: Kinder Morgan Blanco Field NFP 08/17/19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-190487-2	NFP-MW56-41-42-08172019	89	85	82	109
600-190487-4	NFP-MW49-14-15-08172019	101	97	105	119
600-190487-5	NFP-MW49-19-20-08172019	96	94	107	119
600-190487-6	NFP-MW49-29-30-08172019	96	93	107	119
600-190487-7	NFP-MW49-39-40-08172019	96	95	107	120
600-190487-8	NFP-MW49-49-50-08172019	96	92	107	119
600-190487-9	NFP-MW49-56-57-08172019	96	94	107	118
LCS 600-272770/3	Lab Control Sample	93	104	112	116
LCS 600-272844/3	Lab Control Sample	77	83	81	110
LCSD 600-272770/4	Lab Control Sample Dup	90	102	108	112
LCSD 600-272844/4	Lab Control Sample Dup	74	82	82	107
MB 600-272770/6	Method Blank	97	96	106	117
MB 600-272844/6	Method Blank	71	78	82	104

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (50-134)	DBFM (62-130)	TOL (70-130)	BFB (67-139)
600-190487-1	NFP-TB04-08172019	102	100	89	105
600-190487-3	NFP-EB02-08172019	107	111	89	102
LCS 600-272371/3	Lab Control Sample	110	111	96	105
LCSD 600-272371/4	Lab Control Sample Dup	104	111	97	106
MB 600-272371/15	Method Blank	110	109	86	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190487-1

Project/Site: Kinder Morgan Blanco Field NFP 08/17/19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-272371/15

Matrix: Water

Analysis Batch: 272371

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			08/20/19 14:51	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			08/20/19 14:51	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			08/20/19 14:51	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			08/20/19 14:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		50 - 134		08/20/19 14:51	1
Dibromofluoromethane	109		62 - 130		08/20/19 14:51	1
Toluene-d8 (Surr)	86		70 - 130		08/20/19 14:51	1
4-Bromofluorobenzene	101		67 - 139		08/20/19 14:51	1

Lab Sample ID: LCS 600-272371/3

Matrix: Water

Analysis Batch: 272371

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.01251		mg/L		125	70 - 130
Ethylbenzene	0.0100	0.01165		mg/L		117	70 - 130
Toluene	0.0100	0.01167		mg/L		117	70 - 130
Xylenes, Total	0.0200	0.02372		mg/L		119	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	110		50 - 134
Dibromofluoromethane	111		62 - 130
Toluene-d8 (Surr)	96		70 - 130
4-Bromofluorobenzene	105		67 - 139

Lab Sample ID: LCSD 600-272371/4

Matrix: Water

Analysis Batch: 272371

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
Benzene	0.0100	0.01193		mg/L		119	70 - 130	5	20
Ethylbenzene	0.0100	0.01138		mg/L		114	70 - 130	2	20
Toluene	0.0100	0.01113		mg/L		111	70 - 130	5	20
Xylenes, Total	0.0200	0.02240		mg/L		112	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		50 - 134
Dibromofluoromethane	111		62 - 130
Toluene-d8 (Surr)	97		70 - 130
4-Bromofluorobenzene	106		67 - 139

Eurofins TestAmerica, Houston

QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190487-1

Project/Site: Kinder Morgan Blanco Field NFP 08/17/19

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

Lab Sample ID: MB 600-272770/6

Matrix: Solid

Analysis Batch: 272770

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			08/23/19 14:07	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			08/23/19 14:07	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			08/23/19 14:07	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			08/23/19 14:07	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		61 - 130		08/23/19 14:07	1
Dibromofluoromethane	96		68 - 140		08/23/19 14:07	1
Toluene-d8 (Surr)	106		50 - 130		08/23/19 14:07	1
4-Bromofluorobenzene	117		57 - 140		08/23/19 14:07	1

Lab Sample ID: LCS 600-272770/3

Matrix: Solid

Analysis Batch: 272770

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.06398		mg/Kg		128	70 - 131
Ethylbenzene	0.0500	0.06142		mg/Kg		123	66 - 130
Toluene	0.0500	0.06201		mg/Kg		124	67 - 130
Xylenes, Total	0.100	0.1203		mg/Kg		120	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		61 - 130
Dibromofluoromethane	104		68 - 140
Toluene-d8 (Surr)	112		50 - 130
4-Bromofluorobenzene	116		57 - 140

Lab Sample ID: LCSD 600-272770/4

Matrix: Solid

Analysis Batch: 272770

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
Benzene	0.0500	0.05674		mg/Kg		113	70 - 131	12	30
Ethylbenzene	0.0500	0.05513		mg/Kg		110	66 - 130	11	30
Toluene	0.0500	0.05477		mg/Kg		110	67 - 130	12	30
Xylenes, Total	0.100	0.1090		mg/Kg		109	63 - 130	10	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	90		61 - 130
Dibromofluoromethane	102		68 - 140
Toluene-d8 (Surr)	108		50 - 130
4-Bromofluorobenzene	112		57 - 140

Eurofins TestAmerica, Houston

QC Sample Results

Client: CH2M Hill, Inc.
Project/Site: Kinder Morgan Blanco Field NFP 08/17/19

Job ID: 600-190487-1

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

Lab Sample ID: MB 600-272844/6

Matrix: Solid

Analysis Batch: 272844

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			08/24/19 14:16	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			08/24/19 14:16	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			08/24/19 14:16	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			08/24/19 14:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	71		61 - 130		08/24/19 14:16	1
Dibromofluoromethane	78		68 - 140		08/24/19 14:16	1
Toluene-d8 (Surr)	82		50 - 130		08/24/19 14:16	1
4-Bromofluorobenzene	104		57 - 140		08/24/19 14:16	1

Lab Sample ID: LCS 600-272844/3

Matrix: Solid

Analysis Batch: 272844

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.05620		mg/Kg		112	70 - 131
Ethylbenzene	0.0500	0.04722		mg/Kg		94	66 - 130
Toluene	0.0500	0.04879		mg/Kg		98	67 - 130
Xylenes, Total	0.100	0.09642		mg/Kg		96	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	77		61 - 130
Dibromofluoromethane	83		68 - 140
Toluene-d8 (Surr)	81		50 - 130
4-Bromofluorobenzene	110		57 - 140

Lab Sample ID: LCSD 600-272844/4

Matrix: Solid

Analysis Batch: 272844

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
Benzene	0.0500	0.05821		mg/Kg		116	70 - 131	4	30
Ethylbenzene	0.0500	0.04814		mg/Kg		96	66 - 130	2	30
Toluene	0.0500	0.04951		mg/Kg		99	67 - 130	1	30
Xylenes, Total	0.100	0.09765		mg/Kg		98	63 - 130	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	74		61 - 130
Dibromofluoromethane	82		68 - 140
Toluene-d8 (Surr)	82		50 - 130
4-Bromofluorobenzene	107		57 - 140

Eurofins TestAmerica, Houston

QC Sample Results

Client: CH2M Hill, Inc.
Project/Site: Kinder Morgan Blanco Field NFP 08/17/19

Job ID: 600-190487-1

Method: 2540B - Percent Moisture

Lab Sample ID: 600-190487-7 DU				Client Sample ID: NFP-MW49-39-40-08172019			
Matrix: Solid				Prep Type: Total/NA			
Analysis Batch: 272587							
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD Limit
Percent Moisture	3.9		3.9		%		2 20
Percent Solids	96.1		96.1		%		0.07 20

QC Association Summary

Client: CH2M Hill, Inc.

Job ID: 600-190487-1

Project/Site: Kinder Morgan Blanco Field NFP 08/17/19

GC/MS VOA

Analysis Batch: 272371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190487-1	NFP-TB04-08172019	Total/NA	Water	8260B	
600-190487-3	NFP-EB02-08172019	Total/NA	Water	8260B	
MB 600-272371/15	Method Blank	Total/NA	Water	8260B	
LCS 600-272371/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-272371/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 272770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190487-4	NFP-MW49-14-15-08172019	Total/NA	Solid	8260B	272786
600-190487-5	NFP-MW49-19-20-08172019	Total/NA	Solid	8260B	272786
600-190487-6	NFP-MW49-29-30-08172019	Total/NA	Solid	8260B	272786
600-190487-7	NFP-MW49-39-40-08172019	Total/NA	Solid	8260B	272786
600-190487-8	NFP-MW49-49-50-08172019	Total/NA	Solid	8260B	272786
600-190487-9	NFP-MW49-56-57-08172019	Total/NA	Solid	8260B	272786
MB 600-272770/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-272770/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-272770/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

Prep Batch: 272786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190487-2	NFP-MW56-41-42-08172019	Total/NA	Solid	5035_ASP	
600-190487-4	NFP-MW49-14-15-08172019	Total/NA	Solid	5035_ASP	
600-190487-5	NFP-MW49-19-20-08172019	Total/NA	Solid	5035_ASP	
600-190487-6	NFP-MW49-29-30-08172019	Total/NA	Solid	5035_ASP	
600-190487-7	NFP-MW49-39-40-08172019	Total/NA	Solid	5035_ASP	
600-190487-8	NFP-MW49-49-50-08172019	Total/NA	Solid	5035_ASP	
600-190487-9	NFP-MW49-56-57-08172019	Total/NA	Solid	5035_ASP	

Analysis Batch: 272844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190487-2	NFP-MW56-41-42-08172019	Total/NA	Solid	8260B	272786
MB 600-272844/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-272844/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-272844/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

General Chemistry

Analysis Batch: 272587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190487-2	NFP-MW56-41-42-08172019	Total/NA	Solid	2540B	
600-190487-4	NFP-MW49-14-15-08172019	Total/NA	Solid	2540B	
600-190487-5	NFP-MW49-19-20-08172019	Total/NA	Solid	2540B	
600-190487-6	NFP-MW49-29-30-08172019	Total/NA	Solid	2540B	
600-190487-7	NFP-MW49-39-40-08172019	Total/NA	Solid	2540B	
600-190487-8	NFP-MW49-49-50-08172019	Total/NA	Solid	2540B	
600-190487-9	NFP-MW49-56-57-08172019	Total/NA	Solid	2540B	
600-190487-7 DU	NFP-MW49-39-40-08172019	Total/NA	Solid	2540B	

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Lab Chronicle

Client: CH2M Hill, Inc.
Project/Site: Kinder Morgan Blanco Field NFP 08/17/19

Job ID: 600-190487-1

Client Sample ID: NFP-TB04-08172019

Lab Sample ID: 600-190487-1

Date Collected: 08/17/19 09:00

Matrix: Water

Date Received: 08/20/19 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	272371	08/20/19 19:10	WS1	TAL HOU

Client Sample ID: NFP-MW56-41-42-08172019

Lab Sample ID: 600-190487-2

Date Collected: 08/17/19 09:20

Matrix: Solid

Date Received: 08/20/19 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272587	08/21/19 15:30	AP	TAL HOU

Client Sample ID: NFP-MW56-41-42-08172019

Lab Sample ID: 600-190487-2

Date Collected: 08/17/19 09:20

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 79.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.27 g	5 mL	272786	08/20/19 14:00	KLV	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272844	08/24/19 20:33	WS1	TAL HOU

Client Sample ID: NFP-EB02-08172019

Lab Sample ID: 600-190487-3

Date Collected: 08/17/19 14:30

Matrix: Water

Date Received: 08/20/19 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	272371	08/20/19 19:36	WS1	TAL HOU

Client Sample ID: NFP-MW49-14-15-08172019

Lab Sample ID: 600-190487-4

Date Collected: 08/17/19 15:05

Matrix: Solid

Date Received: 08/20/19 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272587	08/21/19 15:30	AP	TAL HOU

Client Sample ID: NFP-MW49-14-15-08172019

Lab Sample ID: 600-190487-4

Date Collected: 08/17/19 15:05

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 95.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.26 g	5 mL	272786	08/20/19 14:00	KLV	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272770	08/23/19 19:41	YX1	TAL HOU

Client Sample ID: NFP-MW49-19-20-08172019

Lab Sample ID: 600-190487-5

Date Collected: 08/17/19 15:15

Matrix: Solid

Date Received: 08/20/19 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272587	08/21/19 15:30	AP	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: CH2M Hill, Inc.
Project/Site: Kinder Morgan Blanco Field NFP 08/17/19

Job ID: 600-190487-1

Client Sample ID: NFP-MW49-19-20-08172019

Lab Sample ID: 600-190487-5

Date Collected: 08/17/19 15:15

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 95.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.38 g	5 mL	272786	08/20/19 14:00	KLK	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272770	08/23/19 20:10	YX1	TAL HOU

Client Sample ID: NFP-MW49-29-30-08172019

Lab Sample ID: 600-190487-6

Date Collected: 08/17/19 15:25

Matrix: Solid

Date Received: 08/20/19 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272587	08/21/19 15:30	AP	TAL HOU

Client Sample ID: NFP-MW49-29-30-08172019

Lab Sample ID: 600-190487-6

Date Collected: 08/17/19 15:25

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 89.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.89 g	5 mL	272786	08/20/19 14:00	KLK	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272770	08/23/19 20:38	YX1	TAL HOU

Client Sample ID: NFP-MW49-39-40-08172019

Lab Sample ID: 600-190487-7

Date Collected: 08/17/19 16:10

Matrix: Solid

Date Received: 08/20/19 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272587	08/21/19 15:30	AP	TAL HOU

Client Sample ID: NFP-MW49-39-40-08172019

Lab Sample ID: 600-190487-7

Date Collected: 08/17/19 16:10

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 96.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.09 g	5 mL	272786	08/20/19 14:00	KLK	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272770	08/23/19 21:06	YX1	TAL HOU

Client Sample ID: NFP-MW49-49-50-08172019

Lab Sample ID: 600-190487-8

Date Collected: 08/17/19 16:40

Matrix: Solid

Date Received: 08/20/19 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272587	08/21/19 15:30	AP	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: CH2M Hill, Inc.
Project/Site: Kinder Morgan Blanco Field NFP 08/17/19

Job ID: 600-190487-1

Client Sample ID: NFP-MW49-49-50-08172019

Lab Sample ID: 600-190487-8

Date Collected: 08/17/19 16:40

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 86.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.73 g	5 mL	272786	08/20/19 14:00	KLK	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272770	08/23/19 21:34	YX1	TAL HOU

Client Sample ID: NFP-MW49-56-57-08172019

Lab Sample ID: 600-190487-9

Date Collected: 08/17/19 17:45

Matrix: Solid

Date Received: 08/20/19 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272587	08/21/19 15:30	AP	TAL HOU

Client Sample ID: NFP-MW49-56-57-08172019

Lab Sample ID: 600-190487-9

Date Collected: 08/17/19 17:45

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 93.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.4 g	5 mL	272786	08/20/19 14:00	KLK	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272770	08/23/19 22:02	YX1	TAL HOU

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Eurofins TestAmerica, Houston

Accreditation/Certification Summary

Client: CH2M Hill, Inc.

Job ID: 600-190487-1

Project/Site: Kinder Morgan Blanco Field NFP 08/17/19

Laboratory: Eurofins TestAmerica, Houston

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State Program	19-040-0	08-04-20
Louisiana	NELAP	01967	06-30-20
Texas	NELAP	T104704223-18-23	10-31-19
USDA	Federal	P330-18-00130	04-30-21
Utah	NELAP	TX000832019-5	07-31-20

Eurofins TestAmerica, Houston

Eurofins TestAmerica, Houston

6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record



Environment Testing
TestAmerica

Client Information Client Contact: Jeffrey Minchak Company: CH2M Hill, Inc. Address: 3721 Rutledge Rd. NE, Suite B-1 City: Albuquerque State, Zip: NM, 87109 Phone: 505-855-5239 (Tel) Email: jeffrey.minchak@jacobs.com Project Name: Kinder Morgan Bloomfield, NM NFP Site: Blanca Rock Place Pit		Sampler: A. Tuckwell Phone: 607-329-7247 Lab PM: McDaniel, Bethany A E-Mail: bethany.mcdaniel@testamericainc.com		Carrier Tracking No(s): COC No: 600-70257-19219.1 Page: Page 1 of 1 Job #:																																																																																																																																																																														
Analysis Requested Due Date Requested: TAT Requested (days): PO #: WD293112 WO #: Project #: 80004617 SOW#:																																																																																																																																																																																		
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Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV, Other (specify)																																																																																																																																																																																		
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For Months																																																																																																																																																																																		
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Cooler Temperature(s) °C and Other Remarks:																																																																																																																																																																																		



600-190487 Chain of Custody

Ver: 01/16/2019

TestAmerica Houston

Loc: 600

Sample Receipt **190487**
TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

JOB NUMBER:

487
[Signature]

CLIENT:

CH2M Hill
FedEx

UNPACKED BY:

CARRIER/DRIVER:

Custody Seal Present:

☒ YES☐ NO

Number of Coolers Received:

1

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
BW	<u>Y</u> / N	<u>Y</u> / N	<u>3.7</u>	<u>678</u>	<u>+0.1</u>	<u>3.8</u>
	Y / N	Y / N	<u>-10.0</u>	<u>1</u>	<u>1</u>	<u>-9.9</u>
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice?

☒ YES☐ NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED:

☒ NO☐ YES

Base samples are > pH 12:

☐ YES☐ NO

Acid preserved are < pH 2:

☐ YES☐ NO

pH paper Lot #

VOA headspace acceptable (5-6mm):

☐ YES☐ NO☐ NA

	YES	NO
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	☒	☐

COMMENTS:
<u>wake vials on top of samples</u>
<u>and not frozen. Soil samples on the dry</u>
<u>ice and frozen</u>
<u>[Signature]</u>
<u>8/20/19</u>

Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 600-190487-1

Login Number: 190487

List Source: Eurofins TestAmerica, Houston

List Number: 1

Creator: Crafton, Tommie S

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
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	3.8 Water vials on top/-9.9 soil jars on the dry ice
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.



Environment Testing
America

ANALYTICAL REPORT

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

Laboratory Job ID: 600-190504-1

Client Project/Site: Kinder Morgan Blanco Field NFP 08/18/19
Revision: 1

For:

CH2M Hill, Inc.
3721 Rutledge Rd. NE
Suite B-1
Albuquerque, New Mexico 87109

Attn: Aleeca Forsberg

Authorized for release by:

12/10/2020 10:43:54 AM

Steve Stepanski, Project Mgmt. Assistant
(713)690-4444

steve.stepanski@Eurofinset.com

Designee for

Bethany McDaniel, Senior Project Manager
(713)358-2005

bethany.mcdaniel@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.

Client: CH2M Hill, Inc.

Laboratory Job ID: 600-190504-1

Project/Site: Kinder Morgan Blanco Field NFP 08/18/19

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Case Narrative

Client: CH2M Hill, Inc.
Project/Site: Kinder Morgan Blanco Field NFP 08/18/19

Job ID: 600-190504-1

Job ID: 600-190504-1

Laboratory: Eurofins TestAmerica, Houston

Narrative

Job Narrative 600-190504-1

Comments

This report was revised to a Level 2 deliverable per client's request.

Receipt

The samples were received on 8/20/2019 10:33 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were -9.9° C and 3.8° C.

GC/MS VOA

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

General Chemistry

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

Method Summary

Client: CH2M Hill, Inc.

Job ID: 600-190504-1

Project/Site: Kinder Morgan Blanco Field NFP 08/18/19

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
2540B	Percent Moisture	SM20	TAL HOU
5030B	Purge and Trap	SW846	TAL HOU
5035_ASP	Closed System Purge and Trap	SW846	TAL HOU

Protocol References:

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: CH2M Hill, Inc.

Job ID: 600-190504-1

Project/Site: Kinder Morgan Blanco Field NFP 08/18/19

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-190504-1	NFP-EB03-08182019	Water	08/18/19 12:00	08/20/19 10:33	
600-190504-2	NFP-MW50-12-13-08182019	Solid	08/18/19 13:45	08/20/19 10:33	
600-190504-3	NFP-MW50-19-20-08182019	Solid	08/18/19 13:55	08/20/19 10:33	
600-190504-4	NFP-MW50-29-30-08182019	Solid	08/18/19 14:15	08/20/19 10:33	
600-190504-5	NFP-MW50-39-40-08182019	Solid	08/18/19 15:00	08/20/19 10:33	
600-190504-6	NFP-MW50-49-50-08182019	Solid	08/18/19 15:10	08/20/19 10:33	
600-190504-7	NFP-MW50-57-58--08182019	Solid	08/18/19 16:30	08/20/19 10:33	

Client Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190504-1

Project/Site: Kinder Morgan Blanco Field NFP 08/18/19

Client Sample ID: NFP-EB03-08182019

Lab Sample ID: 600-190504-1

Date Collected: 08/18/19 12:00

Matrix: Water

Date Received: 08/20/19 10:33

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			08/21/19 11:50	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			08/21/19 11:50	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			08/21/19 11:50	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			08/21/19 11:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		50 - 134		08/21/19 11:50	1
Dibromofluoromethane	105		62 - 130		08/21/19 11:50	1
Toluene-d8 (Surr)	90		70 - 130		08/21/19 11:50	1
4-Bromofluorobenzene	106		67 - 139		08/21/19 11:50	1

Client Sample ID: NFP-MW50-12-13-08182019

Lab Sample ID: 600-190504-2

Date Collected: 08/18/19 13:45

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 91.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000653	U	0.00519	0.000653	mg/Kg	☼	08/20/19 14:00	08/24/19 20:56	1
Ethylbenzene	0.00106	U	0.00519	0.00106	mg/Kg	☼	08/20/19 14:00	08/24/19 20:56	1
Toluene	0.00143	U	0.00519	0.00143	mg/Kg	☼	08/20/19 14:00	08/24/19 20:56	1
Xylenes, Total	0.00117	U	0.00519	0.00117	mg/Kg	☼	08/20/19 14:00	08/24/19 20:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		61 - 130	08/20/19 14:00	08/24/19 20:56	1
Dibromofluoromethane	83		68 - 140	08/20/19 14:00	08/24/19 20:56	1
Toluene-d8 (Surr)	82		50 - 130	08/20/19 14:00	08/24/19 20:56	1
4-Bromofluorobenzene	109		57 - 140	08/20/19 14:00	08/24/19 20:56	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.4		1.0	1.0	%			08/21/19 15:30	1
Percent Solids	91.6		1.0	1.0	%			08/21/19 15:30	1

Client Sample ID: NFP-MW50-19-20-08182019

Lab Sample ID: 600-190504-3

Date Collected: 08/18/19 13:55

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 93.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000680	U	0.00540	0.000680	mg/Kg	☼	08/20/19 14:00	08/24/19 21:20	1
Ethylbenzene	0.00110	U	0.00540	0.00110	mg/Kg	☼	08/20/19 14:00	08/24/19 21:20	1
Toluene	0.00149	U	0.00540	0.00149	mg/Kg	☼	08/20/19 14:00	08/24/19 21:20	1
Xylenes, Total	0.00122	U	0.00540	0.00122	mg/Kg	☼	08/20/19 14:00	08/24/19 21:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		61 - 130	08/20/19 14:00	08/24/19 21:20	1
Dibromofluoromethane	83		68 - 140	08/20/19 14:00	08/24/19 21:20	1
Toluene-d8 (Surr)	82		50 - 130	08/20/19 14:00	08/24/19 21:20	1
4-Bromofluorobenzene	108		57 - 140	08/20/19 14:00	08/24/19 21:20	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190504-1

Project/Site: Kinder Morgan Blanco Field NFP 08/18/19

Client Sample ID: NFP-MW50-19-20-08182019

Lab Sample ID: 600-190504-3

Date Collected: 08/18/19 13:55

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 93.2

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	6.8		1.0	1.0	%			08/21/19 15:30	1
Percent Solids	93.2		1.0	1.0	%			08/21/19 15:30	1

Client Sample ID: NFP-MW50-29-30-08182019

Lab Sample ID: 600-190504-4

Date Collected: 08/18/19 14:15

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 97.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000675	U	0.00535	0.000675	mg/Kg	☼	08/20/19 14:00	08/24/19 21:43	1
Ethylbenzene	0.00109	U	0.00535	0.00109	mg/Kg	☼	08/20/19 14:00	08/24/19 21:43	1
Toluene	0.00148	U	0.00535	0.00148	mg/Kg	☼	08/20/19 14:00	08/24/19 21:43	1
Xylenes, Total	0.00121	U	0.00535	0.00121	mg/Kg	☼	08/20/19 14:00	08/24/19 21:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	78		61 - 130	08/20/19 14:00	08/24/19 21:43	1
Dibromofluoromethane	81		68 - 140	08/20/19 14:00	08/24/19 21:43	1
Toluene-d8 (Surr)	81		50 - 130	08/20/19 14:00	08/24/19 21:43	1
4-Bromofluorobenzene	104		57 - 140	08/20/19 14:00	08/24/19 21:43	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	2.5		1.0	1.0	%			08/21/19 15:30	1
Percent Solids	97.5		1.0	1.0	%			08/21/19 15:30	1

Client Sample ID: NFP-MW50-39-40-08182019

Lab Sample ID: 600-190504-5

Date Collected: 08/18/19 15:00

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 87.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000725	U	0.00575	0.000725	mg/Kg	☼	08/20/19 14:00	08/24/19 22:06	1
Ethylbenzene	0.00117	U	0.00575	0.00117	mg/Kg	☼	08/20/19 14:00	08/24/19 22:06	1
Toluene	0.00159	U	0.00575	0.00159	mg/Kg	☼	08/20/19 14:00	08/24/19 22:06	1
Xylenes, Total	0.00130	U	0.00575	0.00130	mg/Kg	☼	08/20/19 14:00	08/24/19 22:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		61 - 130	08/20/19 14:00	08/24/19 22:06	1
Dibromofluoromethane	82		68 - 140	08/20/19 14:00	08/24/19 22:06	1
Toluene-d8 (Surr)	80		50 - 130	08/20/19 14:00	08/24/19 22:06	1
4-Bromofluorobenzene	106		57 - 140	08/20/19 14:00	08/24/19 22:06	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12.9		1.0	1.0	%			08/21/19 15:30	1
Percent Solids	87.1		1.0	1.0	%			08/21/19 15:30	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190504-1

Project/Site: Kinder Morgan Blanco Field NFP 08/18/19

Client Sample ID: NFP-MW50-49-50-08182019

Lab Sample ID: 600-190504-6

Date Collected: 08/18/19 15:10

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 94.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000705	U	0.00560	0.000705	mg/Kg	☼	08/20/19 14:00	08/26/19 17:31	1
Ethylbenzene	0.00114	U	0.00560	0.00114	mg/Kg	☼	08/20/19 14:00	08/26/19 17:31	1
Toluene	0.00154	U	0.00560	0.00154	mg/Kg	☼	08/20/19 14:00	08/26/19 17:31	1
Xylenes, Total	0.00126	U	0.00560	0.00126	mg/Kg	☼	08/20/19 14:00	08/26/19 17:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		61 - 130	08/20/19 14:00	08/26/19 17:31	1
Dibromofluoromethane	83		68 - 140	08/20/19 14:00	08/26/19 17:31	1
Toluene-d8 (Surr)	82		50 - 130	08/20/19 14:00	08/26/19 17:31	1
4-Bromofluorobenzene	106		57 - 140	08/20/19 14:00	08/26/19 17:31	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.8		1.0	1.0	%	—		08/21/19 15:30	1
Percent Solids	94.2		1.0	1.0	%	—		08/21/19 15:30	1

Client Sample ID: NFP-MW50-57-58--08182019

Lab Sample ID: 600-190504-7

Date Collected: 08/18/19 16:30

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 93.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000669	U	0.00531	0.000669	mg/Kg	☼	08/20/19 14:00	08/24/19 22:53	1
Ethylbenzene	0.00108	U	0.00531	0.00108	mg/Kg	☼	08/20/19 14:00	08/24/19 22:53	1
Toluene	0.00147	U	0.00531	0.00147	mg/Kg	☼	08/20/19 14:00	08/24/19 22:53	1
Xylenes, Total	0.00120	U	0.00531	0.00120	mg/Kg	☼	08/20/19 14:00	08/24/19 22:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		61 - 130	08/20/19 14:00	08/24/19 22:53	1
Dibromofluoromethane	86		68 - 140	08/20/19 14:00	08/24/19 22:53	1
Toluene-d8 (Surr)	82		50 - 130	08/20/19 14:00	08/24/19 22:53	1
4-Bromofluorobenzene	107		57 - 140	08/20/19 14:00	08/24/19 22:53	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	6.6		1.0	1.0	%	—		08/21/19 15:30	1
Percent Solids	93.4		1.0	1.0	%	—		08/21/19 15:30	1

Eurofins TestAmerica, Houston

Definitions/Glossary

Client: CH2M Hill, Inc.

Job ID: 600-190504-1

Project/Site: Kinder Morgan Blanco Field NFP 08/18/19

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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)

Surrogate Summary

Client: CH2M Hill, Inc.

Job ID: 600-190504-1

Project/Site: Kinder Morgan Blanco Field NFP 08/18/19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-190504-2	NFP-MW50-12-13-08182019	84	83	82	109
600-190504-3	NFP-MW50-19-20-08182019	83	83	82	108
600-190504-4	NFP-MW50-29-30-08182019	78	81	81	104
600-190504-5	NFP-MW50-39-40-08182019	79	82	80	106
600-190504-6	NFP-MW50-49-50-08182019	91	83	82	106
600-190504-7	NFP-MW50-57-58--08182019	85	86	82	107
LCS 600-272844/3	Lab Control Sample	77	83	81	110
LCS 600-272879/3	Lab Control Sample	81	89	82	108
LCSD 600-272844/4	Lab Control Sample Dup	74	82	82	107
LCSD 600-272879/4	Lab Control Sample Dup	78	85	83	110
MB 600-272844/6	Method Blank	71	78	82	104
MB 600-272879/6	Method Blank	91	86	81	109

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (50-134)	DBFM (62-130)	TOL (70-130)	BFB (67-139)
600-190504-1	NFP-EB03-08182019	103	105	90	106
LCS 600-272495/3	Lab Control Sample	103	106	91	100
LCSD 600-272495/4	Lab Control Sample Dup	106	108	98	99
MB 600-272495/6	Method Blank	99	104	94	108

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190504-1

Project/Site: Kinder Morgan Blanco Field NFP 08/18/19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-272495/6

Matrix: Water

Analysis Batch: 272495

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			08/21/19 10:59	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			08/21/19 10:59	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			08/21/19 10:59	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			08/21/19 10:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		50 - 134		08/21/19 10:59	1
Dibromofluoromethane	104		62 - 130		08/21/19 10:59	1
Toluene-d8 (Surr)	94		70 - 130		08/21/19 10:59	1
4-Bromofluorobenzene	108		67 - 139		08/21/19 10:59	1

Lab Sample ID: LCS 600-272495/3

Matrix: Water

Analysis Batch: 272495

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.01211		mg/L		121	70 - 130
Ethylbenzene	0.0100	0.01213		mg/L		121	70 - 130
Toluene	0.0100	0.01142		mg/L		114	70 - 130
Xylenes, Total	0.0200	0.02292		mg/L		115	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		50 - 134
Dibromofluoromethane	106		62 - 130
Toluene-d8 (Surr)	91		70 - 130
4-Bromofluorobenzene	100		67 - 139

Lab Sample ID: LCSD 600-272495/4

Matrix: Water

Analysis Batch: 272495

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
Benzene	0.0100	0.01249		mg/L		125	70 - 130	3	20
Ethylbenzene	0.0100	0.01272		mg/L		127	70 - 130	5	20
Toluene	0.0100	0.01163		mg/L		116	70 - 130	2	20
Xylenes, Total	0.0200	0.02419		mg/L		121	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		50 - 134
Dibromofluoromethane	108		62 - 130
Toluene-d8 (Surr)	98		70 - 130
4-Bromofluorobenzene	99		67 - 139

Eurofins TestAmerica, Houston

QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190504-1

Project/Site: Kinder Morgan Blanco Field NFP 08/18/19

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

Lab Sample ID: MB 600-272844/6

Matrix: Solid

Analysis Batch: 272844

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			08/24/19 14:16	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			08/24/19 14:16	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			08/24/19 14:16	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			08/24/19 14:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	71		61 - 130		08/24/19 14:16	1
Dibromofluoromethane	78		68 - 140		08/24/19 14:16	1
Toluene-d8 (Surr)	82		50 - 130		08/24/19 14:16	1
4-Bromofluorobenzene	104		57 - 140		08/24/19 14:16	1

Lab Sample ID: LCS 600-272844/3

Matrix: Solid

Analysis Batch: 272844

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.05620		mg/Kg		112	70 - 131
Ethylbenzene	0.0500	0.04722		mg/Kg		94	66 - 130
Toluene	0.0500	0.04879		mg/Kg		98	67 - 130
Xylenes, Total	0.100	0.09642		mg/Kg		96	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	77		61 - 130
Dibromofluoromethane	83		68 - 140
Toluene-d8 (Surr)	81		50 - 130
4-Bromofluorobenzene	110		57 - 140

Lab Sample ID: LCSD 600-272844/4

Matrix: Solid

Analysis Batch: 272844

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
Benzene	0.0500	0.05821		mg/Kg		116	70 - 131	4	30
Ethylbenzene	0.0500	0.04814		mg/Kg		96	66 - 130	2	30
Toluene	0.0500	0.04951		mg/Kg		99	67 - 130	1	30
Xylenes, Total	0.100	0.09765		mg/Kg		98	63 - 130	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	74		61 - 130
Dibromofluoromethane	82		68 - 140
Toluene-d8 (Surr)	82		50 - 130
4-Bromofluorobenzene	107		57 - 140

Eurofins TestAmerica, Houston

QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190504-1

Project/Site: Kinder Morgan Blanco Field NFP 08/18/19

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

Lab Sample ID: MB 600-272879/6

Matrix: Solid

Analysis Batch: 272879

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			08/26/19 10:48	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			08/26/19 10:48	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			08/26/19 10:48	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			08/26/19 10:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		61 - 130		08/26/19 10:48	1
Dibromofluoromethane	86		68 - 140		08/26/19 10:48	1
Toluene-d8 (Surr)	81		50 - 130		08/26/19 10:48	1
4-Bromofluorobenzene	109		57 - 140		08/26/19 10:48	1

Lab Sample ID: LCS 600-272879/3

Matrix: Solid

Analysis Batch: 272879

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.05286		mg/Kg		106	70 - 131
Ethylbenzene	0.0500	0.04321		mg/Kg		86	66 - 130
Toluene	0.0500	0.04408		mg/Kg		88	67 - 130
Xylenes, Total	0.100	0.08948		mg/Kg		89	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	81		61 - 130
Dibromofluoromethane	89		68 - 140
Toluene-d8 (Surr)	82		50 - 130
4-Bromofluorobenzene	108		57 - 140

Lab Sample ID: LCSD 600-272879/4

Matrix: Solid

Analysis Batch: 272879

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
Benzene	0.0500	0.05103		mg/Kg		102	70 - 131	4	30
Ethylbenzene	0.0500	0.04243		mg/Kg		85	66 - 130	2	30
Toluene	0.0500	0.04272		mg/Kg		85	67 - 130	3	30
Xylenes, Total	0.100	0.08643		mg/Kg		86	63 - 130	3	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	78		61 - 130
Dibromofluoromethane	85		68 - 140
Toluene-d8 (Surr)	83		50 - 130
4-Bromofluorobenzene	110		57 - 140

Eurofins TestAmerica, Houston

QC Association Summary

Client: CH2M Hill, Inc.

Job ID: 600-190504-1

Project/Site: Kinder Morgan Blanco Field NFP 08/18/19

GC/MS VOA

Analysis Batch: 272495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190504-1	NFP-EB03-08182019	Total/NA	Water	8260B	
MB 600-272495/6	Method Blank	Total/NA	Water	8260B	
LCS 600-272495/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-272495/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 272844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190504-2	NFP-MW50-12-13-08182019	Total/NA	Solid	8260B	272849
600-190504-3	NFP-MW50-19-20-08182019	Total/NA	Solid	8260B	272849
600-190504-4	NFP-MW50-29-30-08182019	Total/NA	Solid	8260B	272849
600-190504-5	NFP-MW50-39-40-08182019	Total/NA	Solid	8260B	272849
600-190504-7	NFP-MW50-57-58--08182019	Total/NA	Solid	8260B	272849
MB 600-272844/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-272844/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-272844/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

Prep Batch: 272849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190504-2	NFP-MW50-12-13-08182019	Total/NA	Solid	5035_ASP	
600-190504-3	NFP-MW50-19-20-08182019	Total/NA	Solid	5035_ASP	
600-190504-4	NFP-MW50-29-30-08182019	Total/NA	Solid	5035_ASP	
600-190504-5	NFP-MW50-39-40-08182019	Total/NA	Solid	5035_ASP	
600-190504-6	NFP-MW50-49-50-08182019	Total/NA	Solid	5035_ASP	
600-190504-7	NFP-MW50-57-58--08182019	Total/NA	Solid	5035_ASP	

Analysis Batch: 272879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190504-6	NFP-MW50-49-50-08182019	Total/NA	Solid	8260B	272849
MB 600-272879/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-272879/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-272879/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

General Chemistry

Analysis Batch: 272587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190504-2	NFP-MW50-12-13-08182019	Total/NA	Solid	2540B	
600-190504-3	NFP-MW50-19-20-08182019	Total/NA	Solid	2540B	
600-190504-4	NFP-MW50-29-30-08182019	Total/NA	Solid	2540B	
600-190504-5	NFP-MW50-39-40-08182019	Total/NA	Solid	2540B	
600-190504-6	NFP-MW50-49-50-08182019	Total/NA	Solid	2540B	
600-190504-7	NFP-MW50-57-58--08182019	Total/NA	Solid	2540B	

Eurofins TestAmerica, Houston

Lab Chronicle

Client: CH2M Hill, Inc.

Job ID: 600-190504-1

Project/Site: Kinder Morgan Blanco Field NFP 08/18/19

Client Sample ID: NFP-EB03-08182019

Lab Sample ID: 600-190504-1

Date Collected: 08/18/19 12:00

Matrix: Water

Date Received: 08/20/19 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	272495	08/21/19 11:50	WS1	TAL HOU

Client Sample ID: NFP-MW50-12-13-08182019

Lab Sample ID: 600-190504-2

Date Collected: 08/18/19 13:45

Matrix: Solid

Date Received: 08/20/19 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272587	08/21/19 15:30	AP	TAL HOU

Client Sample ID: NFP-MW50-12-13-08182019

Lab Sample ID: 600-190504-2

Date Collected: 08/18/19 13:45

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 91.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.26 g	5 mL	272849	08/20/19 14:00	KLV	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272844	08/24/19 20:56	WS1	TAL HOU

Client Sample ID: NFP-MW50-19-20-08182019

Lab Sample ID: 600-190504-3

Date Collected: 08/18/19 13:55

Matrix: Solid

Date Received: 08/20/19 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272587	08/21/19 15:30	AP	TAL HOU

Client Sample ID: NFP-MW50-19-20-08182019

Lab Sample ID: 600-190504-3

Date Collected: 08/18/19 13:55

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 93.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			4.97 g	5 mL	272849	08/20/19 14:00	KLV	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272844	08/24/19 21:20	WS1	TAL HOU

Client Sample ID: NFP-MW50-29-30-08182019

Lab Sample ID: 600-190504-4

Date Collected: 08/18/19 14:15

Matrix: Solid

Date Received: 08/20/19 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272587	08/21/19 15:30	AP	TAL HOU

Client Sample ID: NFP-MW50-29-30-08182019

Lab Sample ID: 600-190504-4

Date Collected: 08/18/19 14:15

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 97.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			4.79 g	5 mL	272849	08/20/19 14:00	KLV	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272844	08/24/19 21:43	WS1	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: CH2M Hill, Inc.

Job ID: 600-190504-1

Project/Site: Kinder Morgan Blanco Field NFP 08/18/19

Client Sample ID: NFP-MW50-39-40-08182019

Lab Sample ID: 600-190504-5

Date Collected: 08/18/19 15:00

Matrix: Solid

Date Received: 08/20/19 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272587	08/21/19 15:30	AP	TAL HOU

Client Sample ID: NFP-MW50-39-40-08182019

Lab Sample ID: 600-190504-5

Date Collected: 08/18/19 15:00

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			4.99 g	5 mL	272849	08/20/19 14:00	KLK	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272844	08/24/19 22:06	WS1	TAL HOU

Client Sample ID: NFP-MW50-49-50-08182019

Lab Sample ID: 600-190504-6

Date Collected: 08/18/19 15:10

Matrix: Solid

Date Received: 08/20/19 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272587	08/21/19 15:30	AP	TAL HOU

Client Sample ID: NFP-MW50-49-50-08182019

Lab Sample ID: 600-190504-6

Date Collected: 08/18/19 15:10

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 94.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			4.742 g	5 mL	272849	08/20/19 14:00	KLK	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272879	08/26/19 17:31	WS1	TAL HOU

Client Sample ID: NFP-MW50-57-58--08182019

Lab Sample ID: 600-190504-7

Date Collected: 08/18/19 16:30

Matrix: Solid

Date Received: 08/20/19 10:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272587	08/21/19 15:30	AP	TAL HOU

Client Sample ID: NFP-MW50-57-58--08182019

Lab Sample ID: 600-190504-7

Date Collected: 08/18/19 16:30

Matrix: Solid

Date Received: 08/20/19 10:33

Percent Solids: 93.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.04 g	5 mL	272849	08/20/19 14:00	KLK	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272844	08/24/19 22:53	WS1	TAL HOU

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Eurofins TestAmerica, Houston

Accreditation/Certification Summary

Client: CH2M Hill, Inc.

Job ID: 600-190504-1

Project/Site: Kinder Morgan Blanco Field NFP 08/18/19

Laboratory: Eurofins TestAmerica, Houston

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State Program	19-040-0	08-04-20
Louisiana	NELAP	01967	06-30-20
Texas	NELAP	T104704223-18-23	10-31-19
USDA	Federal	P330-18-00130	04-30-21
Utah	NELAP	TX000832019-5	07-31-20

5310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646



Chain of Custody Record

Environment Testing
TestAmerica

[illegible]

TestAmerica Houston

Loc: 600

Sample Receipt Cr 190504

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

received:

JOB NUMBER:

CLIENT:

UNPACKED BY:

CARRIER/DRIVER:

Custody Seal Present:

☒ YES☐ NO

Number of Coolers Received:

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
BW	Y / N	Y / N	3.7	678	+0.1	3.8
	Y / N	Y / N	-10.0	1	1	-9.9 dry ice
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				8/20/19
	Y / N	Y / N				ST
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice?

☒ YES☐ NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED:

☒ NO☐ YES

Base samples are > pH 12:

☐ YES☐ NO

Acid preserved are < pH 2:

☐ YES☐ NO

pH paper Lot #

VOA headspace acceptable (5-6mm):

☐ YES☐ NO☐ NA

YES NO

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?

COMMENTS:	Water
	Vials on top of samples not frozen
	Soil samples frozen under dry ice
	8/20/19

Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 600-190504-1

Login Number: 190504

List Source: Eurofins TestAmerica, Houston

List Number: 1

Creator: Crafton, Tommie S

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
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	3.8-water samples, -9.9-soil samples on dry ice
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.



Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

Laboratory Job ID: 600-190551-1

Client Project/Site: Kinder Morgan Blanco Field NFP 08/20/19
Revision: 1

For:

CH2M Hill, Inc.
3721 Rutledge Rd. NE
Suite B-1
Albuquerque, New Mexico 87109

Attn: Aleeca Forsberg

Authorized for release by:

12/10/2020 10:45:21 AM

Steve Stepanski, Project Mgmt. Assistant
(713)690-4444

steve.stepanski@Eurofinset.com

Designee for

Bethany McDaniel, Senior Project Manager
(713)358-2005

bethany.mcdaniel@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.

Client: CH2M Hill, Inc.

Laboratory Job ID: 600-190551-1

Project/Site: Kinder Morgan Blanco Field NFP 08/20/19

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Case Narrative

Client: CH2M Hill, Inc.
Project/Site: Kinder Morgan Blanco Field NFP 08/20/19

Job ID: 600-190551-1

Job ID: 600-190551-1

Laboratory: Eurofins TestAmerica, Houston

Narrative

Job Narrative 600-190551-1

Comments

This report was revised to a Level 2 deliverable per client's request.

Receipt

The samples were received on 8/21/2019 10:27 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.4° C.

GC/MS VOA

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

General Chemistry

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

Method Summary

Client: CH2M Hill, Inc.

Job ID: 600-190551-1

Project/Site: Kinder Morgan Blanco Field NFP 08/20/19

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
2540B	Percent Moisture	SM20	TAL HOU
5030B	Purge and Trap	SW846	TAL HOU
5035_ASP	Closed System Purge and Trap	SW846	TAL HOU

Protocol References:

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: CH2M Hill, Inc.

Job ID: 600-190551-1

Project/Site: Kinder Morgan Blanco Field NFP 08/20/19

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-190551-1	NFP-TB06-08202019	Water	08/20/19 09:00	08/21/19 10:27	
600-190551-2	NFP-EB05-08202019	Water	08/20/19 14:00	08/21/19 10:27	
600-190551-3	NFP-MW54-10-11-08202019	Solid	08/20/19 14:40	08/21/19 10:27	
600-190551-4	NFP-MW54-19-20-08202019	Solid	08/20/19 14:50	08/21/19 10:27	
600-190551-5	NFP-MW54-19-20-08202019-2	Solid	08/20/19 14:50	08/21/19 10:27	
600-190551-6	NFP-MW54-29-30-08202019	Solid	08/20/19 15:07	08/21/19 10:27	
600-190551-7	NFP-MW54-39-40-08202019	Solid	08/20/19 16:05	08/21/19 10:27	

Client Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190551-1

Project/Site: Kinder Morgan Blanco Field NFP 08/20/19

Client Sample ID: NFP-TB06-08202019

Lab Sample ID: 600-190551-1

Date Collected: 08/20/19 09:00

Matrix: Water

Date Received: 08/21/19 10:27

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			08/21/19 17:18	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			08/21/19 17:18	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			08/21/19 17:18	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			08/21/19 17:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		50 - 134		08/21/19 17:18	1
Dibromofluoromethane	100		62 - 130		08/21/19 17:18	1
Toluene-d8 (Surr)	93		70 - 130		08/21/19 17:18	1
4-Bromofluorobenzene	107		67 - 139		08/21/19 17:18	1

Client Sample ID: NFP-EB05-08202019

Lab Sample ID: 600-190551-2

Date Collected: 08/20/19 14:00

Matrix: Water

Date Received: 08/21/19 10:27

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			08/21/19 17:45	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			08/21/19 17:45	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			08/21/19 17:45	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			08/21/19 17:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		50 - 134		08/21/19 17:45	1
Dibromofluoromethane	108		62 - 130		08/21/19 17:45	1
Toluene-d8 (Surr)	93		70 - 130		08/21/19 17:45	1
4-Bromofluorobenzene	102		67 - 139		08/21/19 17:45	1

Client Sample ID: NFP-MW54-10-11-08202019

Lab Sample ID: 600-190551-3

Date Collected: 08/20/19 14:40

Matrix: Solid

Date Received: 08/21/19 10:27

Percent Solids: 88.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000644	U	0.00511	0.000644	mg/Kg	☼	08/21/19 12:56	08/24/19 17:25	1
Ethylbenzene	0.00104	U	0.00511	0.00104	mg/Kg	☼	08/21/19 12:56	08/24/19 17:25	1
Toluene	0.00141	U	0.00511	0.00141	mg/Kg	☼	08/21/19 12:56	08/24/19 17:25	1
Xylenes, Total	0.00115	U	0.00511	0.00115	mg/Kg	☼	08/21/19 12:56	08/24/19 17:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77		61 - 130	08/21/19 12:56	08/24/19 17:25	1
Dibromofluoromethane	79		68 - 140	08/21/19 12:56	08/24/19 17:25	1
Toluene-d8 (Surr)	84		50 - 130	08/21/19 12:56	08/24/19 17:25	1
4-Bromofluorobenzene	107		57 - 140	08/21/19 12:56	08/24/19 17:25	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.8		1.0	1.0	%			08/22/19 14:37	1
Percent Solids	88.2		1.0	1.0	%			08/22/19 14:37	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190551-1

Project/Site: Kinder Morgan Blanco Field NFP 08/20/19

Client Sample ID: NFP-MW54-19-20-08202019

Lab Sample ID: 600-190551-4

Date Collected: 08/20/19 14:50

Matrix: Solid

Date Received: 08/21/19 10:27

Percent Solids: 87.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000594	U	0.00472	0.000594	mg/Kg	☼	08/21/19 12:56	08/24/19 17:48	1
Ethylbenzene	0.000962	U	0.00472	0.000962	mg/Kg	☼	08/21/19 12:56	08/24/19 17:48	1
Toluene	0.00130	U	0.00472	0.00130	mg/Kg	☼	08/21/19 12:56	08/24/19 17:48	1
Xylenes, Total	0.00107	U	0.00472	0.00107	mg/Kg	☼	08/21/19 12:56	08/24/19 17:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		61 - 130	08/21/19 12:56	08/24/19 17:48	1
Dibromofluoromethane	80		68 - 140	08/21/19 12:56	08/24/19 17:48	1
Toluene-d8 (Surr)	81		50 - 130	08/21/19 12:56	08/24/19 17:48	1
4-Bromofluorobenzene	105		57 - 140	08/21/19 12:56	08/24/19 17:48	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12.1		1.0	1.0	%			08/22/19 14:37	1
Percent Solids	87.9		1.0	1.0	%			08/22/19 14:37	1

Client Sample ID: NFP-MW54-19-20-08202019-2

Lab Sample ID: 600-190551-5

Date Collected: 08/20/19 14:50

Matrix: Solid

Date Received: 08/21/19 10:27

Percent Solids: 87.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000617	U	0.00489	0.000617	mg/Kg	☼	08/21/19 12:56	08/24/19 18:12	1
Ethylbenzene	0.000998	U	0.00489	0.000998	mg/Kg	☼	08/21/19 12:56	08/24/19 18:12	1
Toluene	0.00135	U	0.00489	0.00135	mg/Kg	☼	08/21/19 12:56	08/24/19 18:12	1
Xylenes, Total	0.00111	U	0.00489	0.00111	mg/Kg	☼	08/21/19 12:56	08/24/19 18:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		61 - 130	08/21/19 12:56	08/24/19 18:12	1
Dibromofluoromethane	81		68 - 140	08/21/19 12:56	08/24/19 18:12	1
Toluene-d8 (Surr)	84		50 - 130	08/21/19 12:56	08/24/19 18:12	1
4-Bromofluorobenzene	107		57 - 140	08/21/19 12:56	08/24/19 18:12	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12.1		1.0	1.0	%			08/22/19 14:37	1
Percent Solids	87.9		1.0	1.0	%			08/22/19 14:37	1

Client Sample ID: NFP-MW54-29-30-08202019

Lab Sample ID: 600-190551-6

Date Collected: 08/20/19 15:07

Matrix: Solid

Date Received: 08/21/19 10:27

Percent Solids: 89.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000642	U	0.00510	0.000642	mg/Kg	☼	08/21/19 12:56	08/24/19 18:36	1
Ethylbenzene	0.00104	U	0.00510	0.00104	mg/Kg	☼	08/21/19 12:56	08/24/19 18:36	1
Toluene	0.00141	U	0.00510	0.00141	mg/Kg	☼	08/21/19 12:56	08/24/19 18:36	1
Xylenes, Total	0.00115	U	0.00510	0.00115	mg/Kg	☼	08/21/19 12:56	08/24/19 18:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		61 - 130	08/21/19 12:56	08/24/19 18:36	1
Dibromofluoromethane	83		68 - 140	08/21/19 12:56	08/24/19 18:36	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190551-1

Project/Site: Kinder Morgan Blanco Field NFP 08/20/19

Client Sample ID: NFP-MW54-29-30-08202019

Lab Sample ID: 600-190551-6

Date Collected: 08/20/19 15:07

Matrix: Solid

Date Received: 08/21/19 10:27

Percent Solids: 89.2

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	83		50 - 130	08/21/19 12:56	08/24/19 18:36	1
4-Bromofluorobenzene	108		57 - 140	08/21/19 12:56	08/24/19 18:36	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.8		1.0	1.0	%			08/22/19 14:37	1
Percent Solids	89.2		1.0	1.0	%			08/22/19 14:37	1

Client Sample ID: NFP-MW54-39-40-08202019

Lab Sample ID: 600-190551-7

Date Collected: 08/20/19 16:05

Matrix: Solid

Date Received: 08/21/19 10:27

Percent Solids: 92.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000580	U	0.00460	0.000580	mg/Kg	☼	08/21/19 12:56	08/24/19 18:59	1
Ethylbenzene	0.000939	U	0.00460	0.000939	mg/Kg	☼	08/21/19 12:56	08/24/19 18:59	1
Toluene	0.00127	U	0.00460	0.00127	mg/Kg	☼	08/21/19 12:56	08/24/19 18:59	1
Xylenes, Total	0.00104	U	0.00460	0.00104	mg/Kg	☼	08/21/19 12:56	08/24/19 18:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		61 - 130	08/21/19 12:56	08/24/19 18:59	1
Dibromofluoromethane	81		68 - 140	08/21/19 12:56	08/24/19 18:59	1
Toluene-d8 (Surr)	84		50 - 130	08/21/19 12:56	08/24/19 18:59	1
4-Bromofluorobenzene	114		57 - 140	08/21/19 12:56	08/24/19 18:59	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.1		1.0	1.0	%			08/22/19 14:37	1
Percent Solids	92.9		1.0	1.0	%			08/22/19 14:37	1

Eurofins TestAmerica, Houston

Definitions/Glossary

Client: CH2M Hill, Inc.

Job ID: 600-190551-1

Project/Site: Kinder Morgan Blanco Field NFP 08/20/19

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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)

Surrogate Summary

Client: CH2M Hill, Inc.

Job ID: 600-190551-1

Project/Site: Kinder Morgan Blanco Field NFP 08/20/19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-190551-3	NFP-MW54-10-11-08202019	77	79	84	107
600-190551-3 MS	NFP-MW54-10-11-08202019	88	86	78	103
600-190551-3 MSD	NFP-MW54-10-11-08202019	84	83	79	100
600-190551-4	NFP-MW54-19-20-08202019	79	80	81	105
600-190551-5	NFP-MW54-19-20-08202019-2	80	81	84	107
600-190551-6	NFP-MW54-29-30-08202019	83	83	83	108
600-190551-7	NFP-MW54-39-40-08202019	84	81	84	114
LCS 600-272844/3	Lab Control Sample	77	83	81	110
LCSD 600-272844/4	Lab Control Sample Dup	74	82	82	107
MB 600-272844/6	Method Blank	71	78	82	104

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (50-134)	DBFM (62-130)	TOL (70-130)	BFB (67-139)
600-190551-1	NFP-TB06-08202019	103	100	93	107
600-190551-2	NFP-EB05-08202019	107	108	93	102
LCS 600-272495/3	Lab Control Sample	103	106	91	100
LCSD 600-272495/4	Lab Control Sample Dup	106	108	98	99
MB 600-272495/6	Method Blank	99	104	94	108

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190551-1

Project/Site: Kinder Morgan Blanco Field NFP 08/20/19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-272495/6

Matrix: Water

Analysis Batch: 272495

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			08/21/19 10:59	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			08/21/19 10:59	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			08/21/19 10:59	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			08/21/19 10:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		50 - 134		08/21/19 10:59	1
Dibromofluoromethane	104		62 - 130		08/21/19 10:59	1
Toluene-d8 (Surr)	94		70 - 130		08/21/19 10:59	1
4-Bromofluorobenzene	108		67 - 139		08/21/19 10:59	1

Lab Sample ID: LCS 600-272495/3

Matrix: Water

Analysis Batch: 272495

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.01211		mg/L		121	70 - 130
Ethylbenzene	0.0100	0.01213		mg/L		121	70 - 130
Toluene	0.0100	0.01142		mg/L		114	70 - 130
Xylenes, Total	0.0200	0.02292		mg/L		115	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		50 - 134
Dibromofluoromethane	106		62 - 130
Toluene-d8 (Surr)	91		70 - 130
4-Bromofluorobenzene	100		67 - 139

Lab Sample ID: LCSD 600-272495/4

Matrix: Water

Analysis Batch: 272495

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
Benzene	0.0100	0.01249		mg/L		125	70 - 130	3	20
Ethylbenzene	0.0100	0.01272		mg/L		127	70 - 130	5	20
Toluene	0.0100	0.01163		mg/L		116	70 - 130	2	20
Xylenes, Total	0.0200	0.02419		mg/L		121	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		50 - 134
Dibromofluoromethane	108		62 - 130
Toluene-d8 (Surr)	98		70 - 130
4-Bromofluorobenzene	99		67 - 139

Eurofins TestAmerica, Houston

QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190551-1

Project/Site: Kinder Morgan Blanco Field NFP 08/20/19

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

Lab Sample ID: MB 600-272844/6

Matrix: Solid

Analysis Batch: 272844

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			08/24/19 14:16	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			08/24/19 14:16	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			08/24/19 14:16	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			08/24/19 14:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	71		61 - 130		08/24/19 14:16	1
Dibromofluoromethane	78		68 - 140		08/24/19 14:16	1
Toluene-d8 (Surr)	82		50 - 130		08/24/19 14:16	1
4-Bromofluorobenzene	104		57 - 140		08/24/19 14:16	1

Lab Sample ID: LCS 600-272844/3

Matrix: Solid

Analysis Batch: 272844

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.05620		mg/Kg		112	70 - 131
Ethylbenzene	0.0500	0.04722		mg/Kg		94	66 - 130
Toluene	0.0500	0.04879		mg/Kg		98	67 - 130
Xylenes, Total	0.100	0.09642		mg/Kg		96	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	77		61 - 130
Dibromofluoromethane	83		68 - 140
Toluene-d8 (Surr)	81		50 - 130
4-Bromofluorobenzene	110		57 - 140

Lab Sample ID: LCSD 600-272844/4

Matrix: Solid

Analysis Batch: 272844

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
Benzene	0.0500	0.05821		mg/Kg		116	70 - 131	4	30
Ethylbenzene	0.0500	0.04814		mg/Kg		96	66 - 130	2	30
Toluene	0.0500	0.04951		mg/Kg		99	67 - 130	1	30
Xylenes, Total	0.100	0.09765		mg/Kg		98	63 - 130	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	74		61 - 130
Dibromofluoromethane	82		68 - 140
Toluene-d8 (Surr)	82		50 - 130
4-Bromofluorobenzene	107		57 - 140

Eurofins TestAmerica, Houston

QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190551-1

Project/Site: Kinder Morgan Blanco Field NFP 08/20/19

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

Lab Sample ID: 600-190551-3 MS

Matrix: Solid

Analysis Batch: 272844

Client Sample ID: NFP-MW54-10-11-08202019

Prep Type: Total/NA

Prep Batch: 272850

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.000644	U	0.0510	0.05131		mg/Kg	☼	101	70 - 131
Ethylbenzene	0.00104	U	0.0510	0.04033		mg/Kg	☼	79	66 - 130
Toluene	0.00141	U	0.0510	0.04149		mg/Kg	☼	81	67 - 130
Xylenes, Total	0.00115	U	0.102	0.08401		mg/Kg	☼	82	63 - 130

Surrogate	MS %Recovery	MS Qualifier	MS Limits
1,2-Dichloroethane-d4 (Surr)	88		61 - 130
Dibromofluoromethane	86		68 - 140
Toluene-d8 (Surr)	78		50 - 130
4-Bromofluorobenzene	103		57 - 140

Lab Sample ID: 600-190551-3 MSD

Matrix: Solid

Analysis Batch: 272844

Client Sample ID: NFP-MW54-10-11-08202019

Prep Type: Total/NA

Prep Batch: 272850

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.000644	U	0.0494	0.05133		mg/Kg	☼	104	70 - 131	0	30
Ethylbenzene	0.00104	U	0.0494	0.04167		mg/Kg	☼	84	66 - 130	3	30
Toluene	0.00141	U	0.0494	0.04220		mg/Kg	☼	85	67 - 130	2	30
Xylenes, Total	0.00115	U	0.0988	0.08484		mg/Kg	☼	86	63 - 130	1	30

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
1,2-Dichloroethane-d4 (Surr)	84		61 - 130
Dibromofluoromethane	83		68 - 140
Toluene-d8 (Surr)	79		50 - 130
4-Bromofluorobenzene	100		57 - 140

Method: 2540B - Percent Moisture

Lab Sample ID: 600-190551-5 DU

Matrix: Solid

Analysis Batch: 272698

Client Sample ID: NFP-MW54-19-20-08202019-2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	12.1		12.0		%		0.7	20
Percent Solids	87.9		88.0		%		0.1	20

Eurofins TestAmerica, Houston

QC Association Summary

Client: CH2M Hill, Inc.

Job ID: 600-190551-1

Project/Site: Kinder Morgan Blanco Field NFP 08/20/19

GC/MS VOA

Analysis Batch: 272495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190551-1	NFP-TB06-08202019	Total/NA	Water	8260B	
600-190551-2	NFP-EB05-08202019	Total/NA	Water	8260B	
MB 600-272495/6	Method Blank	Total/NA	Water	8260B	
LCS 600-272495/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-272495/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 272844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190551-3	NFP-MW54-10-11-08202019	Total/NA	Solid	8260B	272850
600-190551-4	NFP-MW54-19-20-08202019	Total/NA	Solid	8260B	272850
600-190551-5	NFP-MW54-19-20-08202019-2	Total/NA	Solid	8260B	272850
600-190551-6	NFP-MW54-29-30-08202019	Total/NA	Solid	8260B	272850
600-190551-7	NFP-MW54-39-40-08202019	Total/NA	Solid	8260B	272850
MB 600-272844/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-272844/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-272844/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
600-190551-3 MS	NFP-MW54-10-11-08202019	Total/NA	Solid	8260B	272850
600-190551-3 MSD	NFP-MW54-10-11-08202019	Total/NA	Solid	8260B	272850

Prep Batch: 272850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190551-3	NFP-MW54-10-11-08202019	Total/NA	Solid	5035_ASP	
600-190551-4	NFP-MW54-19-20-08202019	Total/NA	Solid	5035_ASP	
600-190551-5	NFP-MW54-19-20-08202019-2	Total/NA	Solid	5035_ASP	
600-190551-6	NFP-MW54-29-30-08202019	Total/NA	Solid	5035_ASP	
600-190551-7	NFP-MW54-39-40-08202019	Total/NA	Solid	5035_ASP	
600-190551-3 MS	NFP-MW54-10-11-08202019	Total/NA	Solid	5035_ASP	
600-190551-3 MSD	NFP-MW54-10-11-08202019	Total/NA	Solid	5035_ASP	

General Chemistry

Analysis Batch: 272698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190551-3	NFP-MW54-10-11-08202019	Total/NA	Solid	2540B	
600-190551-4	NFP-MW54-19-20-08202019	Total/NA	Solid	2540B	
600-190551-5	NFP-MW54-19-20-08202019-2	Total/NA	Solid	2540B	
600-190551-6	NFP-MW54-29-30-08202019	Total/NA	Solid	2540B	
600-190551-7	NFP-MW54-39-40-08202019	Total/NA	Solid	2540B	
600-190551-3 MS	NFP-MW54-10-11-08202019	Total/NA	Solid	2540B	
600-190551-3 MSD	NFP-MW54-10-11-08202019	Total/NA	Solid	2540B	
600-190551-5 DU	NFP-MW54-19-20-08202019-2	Total/NA	Solid	2540B	

Eurofins TestAmerica, Houston

Lab Chronicle

Client: CH2M Hill, Inc.

Job ID: 600-190551-1

Project/Site: Kinder Morgan Blanco Field NFP 08/20/19

Client Sample ID: NFP-TB06-08202019**Lab Sample ID: 600-190551-1****Date Collected: 08/20/19 09:00****Matrix: Water****Date Received: 08/21/19 10:27**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	272495	08/21/19 17:18	WS1	TAL HOU

Client Sample ID: NFP-EB05-08202019**Lab Sample ID: 600-190551-2****Date Collected: 08/20/19 14:00****Matrix: Water****Date Received: 08/21/19 10:27**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	272495	08/21/19 17:45	WS1	TAL HOU

Client Sample ID: NFP-MW54-10-11-08202019**Lab Sample ID: 600-190551-3****Date Collected: 08/20/19 14:40****Matrix: Solid****Date Received: 08/21/19 10:27**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272698	08/22/19 14:37	AP	TAL HOU

Client Sample ID: NFP-MW54-10-11-08202019**Lab Sample ID: 600-190551-3****Date Collected: 08/20/19 14:40****Matrix: Solid****Date Received: 08/21/19 10:27****Percent Solids: 88.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.55 g	5 mL	272850	08/21/19 12:56	KLV	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272844	08/24/19 17:25	WS1	TAL HOU

Client Sample ID: NFP-MW54-19-20-08202019**Lab Sample ID: 600-190551-4****Date Collected: 08/20/19 14:50****Matrix: Solid****Date Received: 08/21/19 10:27**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272698	08/22/19 14:37	AP	TAL HOU

Client Sample ID: NFP-MW54-19-20-08202019**Lab Sample ID: 600-190551-4****Date Collected: 08/20/19 14:50****Matrix: Solid****Date Received: 08/21/19 10:27****Percent Solids: 87.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			6.03 g	5 mL	272850	08/21/19 12:56	KLV	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272844	08/24/19 17:48	WS1	TAL HOU

Client Sample ID: NFP-MW54-19-20-08202019-2**Lab Sample ID: 600-190551-5****Date Collected: 08/20/19 14:50****Matrix: Solid****Date Received: 08/21/19 10:27**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272698	08/22/19 14:37	AP	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: CH2M Hill, Inc.

Job ID: 600-190551-1

Project/Site: Kinder Morgan Blanco Field NFP 08/20/19

Client Sample ID: NFP-MW54-19-20-08202019-2

Lab Sample ID: 600-190551-5

Date Collected: 08/20/19 14:50

Matrix: Solid

Date Received: 08/21/19 10:27

Percent Solids: 87.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.81 g	5 mL	272850	08/21/19 12:56	KLV	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272844	08/24/19 18:12	WS1	TAL HOU

Client Sample ID: NFP-MW54-29-30-08202019

Lab Sample ID: 600-190551-6

Date Collected: 08/20/19 15:07

Matrix: Solid

Date Received: 08/21/19 10:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272698	08/22/19 14:37	AP	TAL HOU

Client Sample ID: NFP-MW54-29-30-08202019

Lab Sample ID: 600-190551-6

Date Collected: 08/20/19 15:07

Matrix: Solid

Date Received: 08/21/19 10:27

Percent Solids: 89.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.5 g	5 mL	272850	08/21/19 12:56	KLV	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272844	08/24/19 18:36	WS1	TAL HOU

Client Sample ID: NFP-MW54-39-40-08202019

Lab Sample ID: 600-190551-7

Date Collected: 08/20/19 16:05

Matrix: Solid

Date Received: 08/21/19 10:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272698	08/22/19 14:37	AP	TAL HOU

Client Sample ID: NFP-MW54-39-40-08202019

Lab Sample ID: 600-190551-7

Date Collected: 08/20/19 16:05

Matrix: Solid

Date Received: 08/21/19 10:27

Percent Solids: 92.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.85 g	5 mL	272850	08/21/19 12:56	KLV	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	272844	08/24/19 18:59	WS1	TAL HOU

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Eurofins TestAmerica, Houston

Accreditation/Certification Summary

Client: CH2M Hill, Inc.

Job ID: 600-190551-1

Project/Site: Kinder Morgan Blanco Field NFP 08/20/19

Laboratory: Eurofins TestAmerica, Houston

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State Program	19-040-0	08-04-20
Louisiana	NELAP	01967	06-30-20
Oklahoma	State Program	2018-052	08-31-19 *
Texas	NELAP	T104704223-18-23	10-31-19
USDA	Federal	P330-18-00130	04-30-21
Utah	NELAP	TX000832019-5	07-31-20

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

Eurofins TestAmerica, Houston

Eurofins TestAmerica, Houston

6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

Environment Testing
TestAmerica

Client Information		Sampler: <u>A. Turchak</u>		Lab PM: <u>McDaniel, Bethany A</u>		Carrier Tracking No(s): <u>W04 2409 1451</u>		COC No: <u>600-70257-19219.1</u>	
Client Contact: <u>Jeffrey Minchak</u>		Phone: <u>607-329-7247</u>		E-Mail: <u>bethany.mcdaniel@testamericainc.com</u>		Page: <u>1 of 1</u>		Page: <u>1 of 1</u>	
Company: <u>CH2M Hill, Inc.</u>		Due Date Requested:		Analysis Requested		Job #:		Preservation Codes:	
Address: <u>3721 Rutledge Rd. NE Suite B-1</u>		City: <u>Albuquerque</u>		State: <u>ZIP: <u>87109</u></u>		Phone: <u>505-855-5239 (Tel)</u>		Email: <u>jeffrey.minchak@ch2mhill.com</u>	
Project Name: <u>Kinder Morgan Bloomfield, NM NFP</u>		Project #: <u>60004617</u>		SSOW#: <u>SSOW#:</u>		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)	
Site: <u>Bruce North Face Plot</u>		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Matrix (Water, Soil, Sediment, Organic, Inorganic, etc.)		Preservation Code:		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of containers	
Special Instruction		Sample Type		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
NFP-TBDC-08202019		8/20/19		0900		G		Water	
NFP-EB05-08202019		8/20/19		1400		G		Water	
NFP-MUS4-10-11-08202019		8/20/19		1440		G		S	
NFP-MUS4-19-20-08202019		8/20/19		1450		G		S	
NFP-MUS4-19-20-08202019-2		8/20/19		1450		G		S	
NFP-MUS4-24-30-08202019		8/20/19		1507		G		S	
NFP-MUS4-31-40-08202019		8/20/19		1605		G		S	
600-190551 Chain of Custody		Barcode		Barcode		Barcode		Barcode	
Deliverable Requested: I, II, III, IV, Other (specify)		Poison B		Unknown		Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:		Special Instructions/QC Requirements:	
Relinquished by: <u>[Signature]</u>		Date/Time: <u>8/20/19 1650</u>		Company: <u>Jacobs</u>		Received by: <u>[Signature]</u>		Date/Time: <u>8/21/19 1027 TH</u>	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: <u>Yes</u>		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Date/Time:		Company:	

Ref: Dep: MS/MSD

Date: 06Aug19

Mgt: 50.00 LBS

TRK: 4840 2907 1451

SHIPPING: 0.00

SPECIAL: 0.00

HANDLING: 0.00

TOTAL: 0.00

Rev. 3; 07/01/2014

HS-SA-WI-013

ST
8/21/19
COMMENTS:

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	☒ YES	☐ NO
---	---	-----------------------------

VOA headspace acceptable (5-6mm): ☒ NA ☐ YES ☐ NO

pH paper Lot # _____

Base samples are > pH 12: ☐ YES ☐ NO Acid preserved are < pH 2: ☐ YES ☐ NOLABORATORY PRESERVATION OF SAMPLES REQUIRED: ☒ NO ☐ YESSamples received on ice? ☒ YES ☐ NO

CF = correction factor

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
BW	Y / N	Y / N	3.3	678	10.1	3.4
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

Custody Seal Present: ☒ YES ☐ NO Number of Coolers Received: 1

UNPACKED BY: ST CARRIER/DRIVER: FedEx

JOB NUMBER: 190551 CLIENT: CHAM Hill

Date/Time Received: 19 AUG 21 10:27

Sample Receipt Checklist

TestAmerica Houston

190551

Loc: 600

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

edex
TRK# 4840 2907 1451
WED - 21 AUG 10:30A
PRIORITY OVERNIGHT
77040 IAH TX-US
XH LKSA



600-190551 Waybill



Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 600-190551-1

Login Number: 190551

List Source: Eurofins TestAmerica, Houston

List Number: 1

Creator: Torres, Sandra

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
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	3.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.



Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

Laboratory Job ID: 600-190733-1

Client Project/Site: Kinder Morgan Blanco Field NFP 08/22/19
Revision: 1

For:

CH2M Hill, Inc.
3721 Rutledge Rd. NE
Suite B-1
Albuquerque, New Mexico 87109

Attn: Aleeca Forsberg

Authorized for release by:

12/10/2020 11:02:06 AM

Steve Stepanski, Project Mgmt. Assistant
(713)690-4444

steve.stepanski@Eurofinset.com

Designee for

Bethany McDaniel, Senior Project Manager
(713)358-2005

bethany.mcdaniel@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.

Client: CH2M Hill, Inc.

Laboratory Job ID: 600-190733-1

Project/Site: Kinder Morgan Blanco Field NFP 08/22/19

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Case Narrative

Client: CH2M Hill, Inc.
Project/Site: Kinder Morgan Blanco Field NFP 08/22/19

Job ID: 600-190733-1

Job ID: 600-190733-1

Laboratory: Eurofins TestAmerica, Houston

Narrative

Job Narrative 600-190733-1

Comments

This report was revised to a Level 2 deliverable per client's request.

Receipt

The samples were received on 8/23/2019 9:48 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.2° C.

GC/MS VOA

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

General Chemistry

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

Method Summary

Client: CH2M Hill, Inc.

Job ID: 600-190733-1

Project/Site: Kinder Morgan Blanco Field NFP 08/22/19

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
2540B	Percent Moisture	SM20	TAL HOU
5030B	Purge and Trap	SW846	TAL HOU
5030B	Purge-and-Trap for Aqueous Samples/Unpreserved	SW846	TAL HOU
5035_ASP	Closed System Purge and Trap	SW846	TAL HOU

Protocol References:

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: CH2M Hill, Inc.

Job ID: 600-190733-1

Project/Site: Kinder Morgan Blanco Field NFP 08/22/19

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-190733-1	NFP - TB07 - 08222019	Water	08/22/19 11:00	08/23/19 09:48	
600-190733-2	NFP - EB06 - 08222019	Water	08/22/19 11:15	08/23/19 09:48	
600-190733-3	NFP - MW53 -9-10- 08222019	Solid	08/22/19 12:05	08/23/19 09:48	
600-190733-4	NFP - MW53 -9-10- 08222019 -2	Solid	08/22/19 12:05	08/23/19 09:48	
600-190733-5	NFP - MW53 -19-20- 08222019	Solid	08/22/19 12:25	08/23/19 09:48	
600-190733-6	NFP - MW53 -29-30- 08222019	Solid	08/22/19 12:35	08/23/19 09:48	
600-190733-7	NFP - MW53 -32-33- 08222019	Solid	08/22/19 13:30	08/23/19 09:48	

Client Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190733-1

Project/Site: Kinder Morgan Blanco Field NFP 08/22/19

Client Sample ID: NFP - TB07 - 08222019

Lab Sample ID: 600-190733-1

Date Collected: 08/22/19 11:00

Matrix: Water

Date Received: 08/23/19 09:48

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			08/26/19 14:53	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			08/26/19 14:53	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			08/26/19 14:53	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			08/26/19 14:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		50 - 134		08/26/19 14:53	1
Dibromofluoromethane	89		62 - 130		08/26/19 14:53	1
Toluene-d8 (Surr)	100		70 - 130		08/26/19 14:53	1
4-Bromofluorobenzene	117		67 - 139		08/26/19 14:53	1

Client Sample ID: NFP - EB06 - 08222019

Lab Sample ID: 600-190733-2

Date Collected: 08/22/19 11:15

Matrix: Water

Date Received: 08/23/19 09:48

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			08/26/19 15:25	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			08/26/19 15:25	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			08/26/19 15:25	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			08/26/19 15:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		50 - 134		08/26/19 15:25	1
Dibromofluoromethane	89		62 - 130		08/26/19 15:25	1
Toluene-d8 (Surr)	96		70 - 130		08/26/19 15:25	1
4-Bromofluorobenzene	113		67 - 139		08/26/19 15:25	1

Client Sample ID: NFP - MW53 -9-10- 08222019

Lab Sample ID: 600-190733-3

Date Collected: 08/22/19 12:05

Matrix: Solid

Date Received: 08/23/19 09:48

Percent Solids: 84.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000633	U	0.00502	0.000633	mg/Kg	☼	08/23/19 18:15	08/27/19 15:14	1
Ethylbenzene	0.00102	U	0.00502	0.00102	mg/Kg	☼	08/23/19 18:15	08/27/19 15:14	1
Toluene	0.00139	U	0.00502	0.00139	mg/Kg	☼	08/23/19 18:15	08/27/19 15:14	1
Xylenes, Total	0.00114	U	0.00502	0.00114	mg/Kg	☼	08/23/19 18:15	08/27/19 15:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	73		61 - 130	08/23/19 18:15	08/27/19 15:14	1
Dibromofluoromethane	84		68 - 140	08/23/19 18:15	08/27/19 15:14	1
Toluene-d8 (Surr)	83		50 - 130	08/23/19 18:15	08/27/19 15:14	1
4-Bromofluorobenzene	103		57 - 140	08/23/19 18:15	08/27/19 15:14	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.8		1.0	1.0	%			08/26/19 15:21	1
Percent Solids	84.2		1.0	1.0	%			08/26/19 15:21	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190733-1

Project/Site: Kinder Morgan Blanco Field NFP 08/22/19

Client Sample ID: NFP - MW53 -9-10- 08222019 -2

Lab Sample ID: 600-190733-4

Date Collected: 08/22/19 12:05

Matrix: Solid

Date Received: 08/23/19 09:48

Percent Solids: 93.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000584	U	0.00463	0.000584	mg/Kg	☼	08/23/19 18:15	08/29/19 20:21	1
Ethylbenzene	0.000945	U	0.00463	0.000945	mg/Kg	☼	08/23/19 18:15	08/29/19 20:21	1
Toluene	0.00128	U	0.00463	0.00128	mg/Kg	☼	08/23/19 18:15	08/29/19 20:21	1
Xylenes, Total	0.00105	U	0.00463	0.00105	mg/Kg	☼	08/23/19 18:15	08/29/19 20:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		61 - 130	08/23/19 18:15	08/29/19 20:21	1
Dibromofluoromethane	96		68 - 140	08/23/19 18:15	08/29/19 20:21	1
Toluene-d8 (Surr)	94		50 - 130	08/23/19 18:15	08/29/19 20:21	1
4-Bromofluorobenzene	89		57 - 140	08/23/19 18:15	08/29/19 20:21	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	6.5		1.0	1.0	%			08/26/19 15:21	1
Percent Solids	93.5		1.0	1.0	%			08/26/19 15:21	1

Client Sample ID: NFP - MW53 -19-20- 08222019

Lab Sample ID: 600-190733-5

Date Collected: 08/22/19 12:25

Matrix: Solid

Date Received: 08/23/19 09:48

Percent Solids: 90.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000647	U	0.00514	0.000647	mg/Kg	☼	08/23/19 18:15	08/27/19 16:05	1
Ethylbenzene	0.00105	U	0.00514	0.00105	mg/Kg	☼	08/23/19 18:15	08/27/19 16:05	1
Toluene	0.00142	U	0.00514	0.00142	mg/Kg	☼	08/23/19 18:15	08/27/19 16:05	1
Xylenes, Total	0.00116	U	0.00514	0.00116	mg/Kg	☼	08/23/19 18:15	08/27/19 16:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	73		61 - 130	08/23/19 18:15	08/27/19 16:05	1
Dibromofluoromethane	84		68 - 140	08/23/19 18:15	08/27/19 16:05	1
Toluene-d8 (Surr)	86		50 - 130	08/23/19 18:15	08/27/19 16:05	1
4-Bromofluorobenzene	103		57 - 140	08/23/19 18:15	08/27/19 16:05	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.5		1.0	1.0	%			08/26/19 15:21	1
Percent Solids	90.5		1.0	1.0	%			08/26/19 15:21	1

Client Sample ID: NFP - MW53 -29-30- 08222019

Lab Sample ID: 600-190733-6

Date Collected: 08/22/19 12:35

Matrix: Solid

Date Received: 08/23/19 09:48

Percent Solids: 89.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000597	U	0.00474	0.000597	mg/Kg	☼	08/23/19 18:15	08/27/19 16:30	1
Ethylbenzene	0.000967	U	0.00474	0.000967	mg/Kg	☼	08/23/19 18:15	08/27/19 16:30	1
Toluene	0.00131	U	0.00474	0.00131	mg/Kg	☼	08/23/19 18:15	08/27/19 16:30	1
Xylenes, Total	0.00107	U	0.00474	0.00107	mg/Kg	☼	08/23/19 18:15	08/27/19 16:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	73		61 - 130	08/23/19 18:15	08/27/19 16:30	1
Dibromofluoromethane	80		68 - 140	08/23/19 18:15	08/27/19 16:30	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190733-1

Project/Site: Kinder Morgan Blanco Field NFP 08/22/19

Client Sample ID: NFP - MW53 -29-30- 08222019

Lab Sample ID: 600-190733-6

Date Collected: 08/22/19 12:35

Matrix: Solid

Date Received: 08/23/19 09:48

Percent Solids: 89.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	80		50 - 130	08/23/19 18:15	08/27/19 16:30	1
4-Bromofluorobenzene	102		57 - 140	08/23/19 18:15	08/27/19 16:30	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.5		1.0	1.0	%			08/26/19 15:21	1
Percent Solids	89.5		1.0	1.0	%			08/26/19 15:21	1

Client Sample ID: NFP - MW53 -32-33- 08222019

Lab Sample ID: 600-190733-7

Date Collected: 08/22/19 13:30

Matrix: Solid

Date Received: 08/23/19 09:48

Percent Solids: 90.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000673	U	0.00534	0.000673	mg/Kg	☼	08/23/19 18:15	08/27/19 16:54	1
Ethylbenzene	0.00109	U	0.00534	0.00109	mg/Kg	☼	08/23/19 18:15	08/27/19 16:54	1
Toluene	0.00147	U	0.00534	0.00147	mg/Kg	☼	08/23/19 18:15	08/27/19 16:54	1
Xylenes, Total	0.00121	U	0.00534	0.00121	mg/Kg	☼	08/23/19 18:15	08/27/19 16:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	70		61 - 130	08/23/19 18:15	08/27/19 16:54	1
Dibromofluoromethane	80		68 - 140	08/23/19 18:15	08/27/19 16:54	1
Toluene-d8 (Surr)	85		50 - 130	08/23/19 18:15	08/27/19 16:54	1
4-Bromofluorobenzene	106		57 - 140	08/23/19 18:15	08/27/19 16:54	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.2		1.0	1.0	%			08/26/19 15:21	1
Percent Solids	90.8		1.0	1.0	%			08/26/19 15:21	1

Eurofins TestAmerica, Houston

Definitions/Glossary

Client: CH2M Hill, Inc.

Job ID: 600-190733-1

Project/Site: Kinder Morgan Blanco Field NFP 08/22/19

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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)

Surrogate Summary

Client: CH2M Hill, Inc.

Job ID: 600-190733-1

Project/Site: Kinder Morgan Blanco Field NFP 08/22/19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-190733-3	NFP - MW53 -9-10- 08222019	73	84	83	103
600-190733-4	NFP - MW53 -9-10- 08222019	91	96	94	89
600-190733-5	NFP - MW53 -19-20- 08222019	73	84	86	103
600-190733-6	NFP - MW53 -29-30- 08222019	73	80	80	102
600-190733-7	NFP - MW53 -32-33- 08222019	70	80	85	106
LCS 600-273018/3	Lab Control Sample	67	84	85	103
LCS 600-273347/3	Lab Control Sample	85	93	93	93
LCSD 600-273018/4	Lab Control Sample Dup	66	85	88	106
LCSD 600-273347/4	Lab Control Sample Dup	82	93	96	92
MB 600-273018/6	Method Blank	76	83	84	101
MB 600-273347/6	Method Blank	99	96	91	92
Surrogate Legend					
DCA = 1,2-Dichloroethane-d4 (Surr)					
DBFM = Dibromofluoromethane					
TOL = Toluene-d8 (Surr)					
BFB = 4-Bromofluorobenzene					

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (50-134)	DBFM (62-130)	TOL (70-130)	BFB (67-139)
600-190733-1	NFP - TB07 - 08222019	94	89	100	117
600-190733-2	NFP - EB06 - 08222019	90	89	96	113
LCS 600-272915/3	Lab Control Sample	87	91	100	111
LCSD 600-272915/4	Lab Control Sample Dup	88	89	99	112
MB 600-272915/6	Method Blank	92	88	99	117
Surrogate Legend					
DCA = 1,2-Dichloroethane-d4 (Surr)					
DBFM = Dibromofluoromethane					
TOL = Toluene-d8 (Surr)					
BFB = 4-Bromofluorobenzene					

QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190733-1

Project/Site: Kinder Morgan Blanco Field NFP 08/22/19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-272915/6

Matrix: Water

Analysis Batch: 272915

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			08/26/19 14:20	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			08/26/19 14:20	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			08/26/19 14:20	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			08/26/19 14:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		50 - 134		08/26/19 14:20	1
Dibromofluoromethane	88		62 - 130		08/26/19 14:20	1
Toluene-d8 (Surr)	99		70 - 130		08/26/19 14:20	1
4-Bromofluorobenzene	117		67 - 139		08/26/19 14:20	1

Lab Sample ID: LCS 600-272915/3

Matrix: Water

Analysis Batch: 272915

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.01078		mg/L		108	70 - 130
Ethylbenzene	0.0100	0.01029		mg/L		103	70 - 130
Toluene	0.0100	0.01047		mg/L		105	70 - 130
Xylenes, Total	0.0200	0.02083		mg/L		104	70 - 130
o-Xylene	0.0100	0.01023		mg/L		102	70 - 130
m-Xylene & p-Xylene	0.0100	0.01060		mg/L		106	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	87		50 - 134
Dibromofluoromethane	91		62 - 130
Toluene-d8 (Surr)	100		70 - 130
4-Bromofluorobenzene	111		67 - 139

Lab Sample ID: LCSD 600-272915/4

Matrix: Water

Analysis Batch: 272915

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
Benzene	0.0100	0.01063		mg/L		106	70 - 130	1	20
Ethylbenzene	0.0100	0.01034		mg/L		103	70 - 130	0	20
Toluene	0.0100	0.01031		mg/L		103	70 - 130	2	20
Xylenes, Total	0.0200	0.02088		mg/L		104	70 - 130	0	20
o-Xylene	0.0100	0.01027		mg/L		103	70 - 130	0	20
m-Xylene & p-Xylene	0.0100	0.01061		mg/L		106	70 - 130	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	88		50 - 134
Dibromofluoromethane	89		62 - 130
Toluene-d8 (Surr)	99		70 - 130
4-Bromofluorobenzene	112		67 - 139

Eurofins TestAmerica, Houston

QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190733-1

Project/Site: Kinder Morgan Blanco Field NFP 08/22/19

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

Lab Sample ID: MB 600-273018/6

Matrix: Solid

Analysis Batch: 273018

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			08/27/19 10:40	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			08/27/19 10:40	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			08/27/19 10:40	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			08/27/19 10:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	76		61 - 130		08/27/19 10:40	1
Dibromofluoromethane	83		68 - 140		08/27/19 10:40	1
Toluene-d8 (Surr)	84		50 - 130		08/27/19 10:40	1
4-Bromofluorobenzene	101		57 - 140		08/27/19 10:40	1

Lab Sample ID: LCS 600-273018/3

Matrix: Solid

Analysis Batch: 273018

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.05343		mg/Kg		107	70 - 131
Ethylbenzene	0.0500	0.04865		mg/Kg		97	66 - 130
Toluene	0.0500	0.04820		mg/Kg		96	67 - 130
Xylenes, Total	0.100	0.09511		mg/Kg		95	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	67		61 - 130
Dibromofluoromethane	84		68 - 140
Toluene-d8 (Surr)	85		50 - 130
4-Bromofluorobenzene	103		57 - 140

Lab Sample ID: LCSD 600-273018/4

Matrix: Solid

Analysis Batch: 273018

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
Benzene	0.0500	0.05905		mg/Kg		118	70 - 131	10	30
Ethylbenzene	0.0500	0.05494		mg/Kg		110	66 - 130	12	30
Toluene	0.0500	0.05428		mg/Kg		109	67 - 130	12	30
Xylenes, Total	0.100	0.1069		mg/Kg		107	63 - 130	12	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	66		61 - 130
Dibromofluoromethane	85		68 - 140
Toluene-d8 (Surr)	88		50 - 130
4-Bromofluorobenzene	106		57 - 140

Eurofins TestAmerica, Houston

QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190733-1

Project/Site: Kinder Morgan Blanco Field NFP 08/22/19

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

Lab Sample ID: MB 600-273347/6

Matrix: Solid

Analysis Batch: 273347

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			08/29/19 17:02	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			08/29/19 17:02	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			08/29/19 17:02	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			08/29/19 17:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		61 - 130		08/29/19 17:02	1
Dibromofluoromethane	96		68 - 140		08/29/19 17:02	1
Toluene-d8 (Surr)	91		50 - 130		08/29/19 17:02	1
4-Bromofluorobenzene	92		57 - 140		08/29/19 17:02	1

Lab Sample ID: LCS 600-273347/3

Matrix: Solid

Analysis Batch: 273347

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.05728		mg/Kg		115	70 - 131
Ethylbenzene	0.0500	0.05332		mg/Kg		107	66 - 130
Toluene	0.0500	0.05346		mg/Kg		107	67 - 130
Xylenes, Total	0.100	0.1075		mg/Kg		108	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	85		61 - 130
Dibromofluoromethane	93		68 - 140
Toluene-d8 (Surr)	93		50 - 130
4-Bromofluorobenzene	93		57 - 140

Lab Sample ID: LCSD 600-273347/4

Matrix: Solid

Analysis Batch: 273347

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
Benzene	0.0500	0.05225		mg/Kg		105	70 - 131	9	30
Ethylbenzene	0.0500	0.04870		mg/Kg		97	66 - 130	9	30
Toluene	0.0500	0.04969		mg/Kg		99	67 - 130	7	30
Xylenes, Total	0.100	0.09848		mg/Kg		98	63 - 130	9	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	82		61 - 130
Dibromofluoromethane	93		68 - 140
Toluene-d8 (Surr)	96		50 - 130
4-Bromofluorobenzene	92		57 - 140

Eurofins TestAmerica, Houston

QC Association Summary

Client: CH2M Hill, Inc.

Job ID: 600-190733-1

Project/Site: Kinder Morgan Blanco Field NFP 08/22/19

GC/MS VOA

Analysis Batch: 272915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190733-1	NFP - TB07 - 08222019	Total/NA	Water	8260B	
600-190733-2	NFP - EB06 - 08222019	Total/NA	Water	8260B	
MB 600-272915/6	Method Blank	Total/NA	Water	8260B	
LCS 600-272915/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-272915/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Prep Batch: 272971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190733-3	NFP - MW53 -9-10- 08222019	Total/NA	Solid	5035_ASP	
600-190733-4	NFP - MW53 -9-10- 08222019 -2	Total/NA	Solid	5035_ASP	
600-190733-5	NFP - MW53 -19-20- 08222019	Total/NA	Solid	5035_ASP	
600-190733-6	NFP - MW53 -29-30- 08222019	Total/NA	Solid	5035_ASP	
600-190733-7	NFP - MW53 -32-33- 08222019	Total/NA	Solid	5035_ASP	

Analysis Batch: 273018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190733-3	NFP - MW53 -9-10- 08222019	Total/NA	Solid	8260B	272971
600-190733-5	NFP - MW53 -19-20- 08222019	Total/NA	Solid	8260B	272971
600-190733-6	NFP - MW53 -29-30- 08222019	Total/NA	Solid	8260B	272971
600-190733-7	NFP - MW53 -32-33- 08222019	Total/NA	Solid	8260B	272971
MB 600-273018/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-273018/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-273018/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

Analysis Batch: 273347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190733-4	NFP - MW53 -9-10- 08222019 -2	Total/NA	Solid	8260B	272971
MB 600-273347/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-273347/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-273347/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

General Chemistry

Analysis Batch: 272969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190733-3	NFP - MW53 -9-10- 08222019	Total/NA	Solid	2540B	
600-190733-4	NFP - MW53 -9-10- 08222019 -2	Total/NA	Solid	2540B	
600-190733-5	NFP - MW53 -19-20- 08222019	Total/NA	Solid	2540B	
600-190733-6	NFP - MW53 -29-30- 08222019	Total/NA	Solid	2540B	
600-190733-7	NFP - MW53 -32-33- 08222019	Total/NA	Solid	2540B	

Eurofins TestAmerica, Houston

Lab Chronicle

Client: CH2M Hill, Inc.

Job ID: 600-190733-1

Project/Site: Kinder Morgan Blanco Field NFP 08/22/19

Client Sample ID: NFP - TB07 - 08222019

Lab Sample ID: 600-190733-1

Date Collected: 08/22/19 11:00

Matrix: Water

Date Received: 08/23/19 09:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	272915	08/26/19 14:53	YX1	TAL HOU

Client Sample ID: NFP - EB06 - 08222019

Lab Sample ID: 600-190733-2

Date Collected: 08/22/19 11:15

Matrix: Water

Date Received: 08/23/19 09:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	272915	08/26/19 15:25	YX1	TAL HOU

Client Sample ID: NFP - MW53 -9-10- 08222019

Lab Sample ID: 600-190733-3

Date Collected: 08/22/19 12:05

Matrix: Solid

Date Received: 08/23/19 09:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272969	08/26/19 15:21	AP	TAL HOU

Client Sample ID: NFP - MW53 -9-10- 08222019

Lab Sample ID: 600-190733-3

Date Collected: 08/22/19 12:05

Matrix: Solid

Date Received: 08/23/19 09:48

Percent Solids: 84.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.91 g	5 mL	272971	08/23/19 18:15	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	273018	08/27/19 15:14	WS1	TAL HOU

Client Sample ID: NFP - MW53 -9-10- 08222019 -2

Lab Sample ID: 600-190733-4

Date Collected: 08/22/19 12:05

Matrix: Solid

Date Received: 08/23/19 09:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272969	08/26/19 15:21	AP	TAL HOU

Client Sample ID: NFP - MW53 -9-10- 08222019 -2

Lab Sample ID: 600-190733-4

Date Collected: 08/22/19 12:05

Matrix: Solid

Date Received: 08/23/19 09:48

Percent Solids: 93.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.77 g	5 mL	272971	08/23/19 18:15	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	273347	08/29/19 20:21	WS1	TAL HOU

Client Sample ID: NFP - MW53 -19-20- 08222019

Lab Sample ID: 600-190733-5

Date Collected: 08/22/19 12:25

Matrix: Solid

Date Received: 08/23/19 09:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272969	08/26/19 15:21	AP	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: CH2M Hill, Inc.

Job ID: 600-190733-1

Project/Site: Kinder Morgan Blanco Field NFP 08/22/19

Client Sample ID: NFP - MW53 -19-20- 08222019

Lab Sample ID: 600-190733-5

Date Collected: 08/22/19 12:25

Matrix: Solid

Date Received: 08/23/19 09:48

Percent Solids: 90.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.38 g	5 mL	272971	08/23/19 18:15	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	273018	08/27/19 16:05	WS1	TAL HOU

Client Sample ID: NFP - MW53 -29-30- 08222019

Lab Sample ID: 600-190733-6

Date Collected: 08/22/19 12:35

Matrix: Solid

Date Received: 08/23/19 09:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272969	08/26/19 15:21	AP	TAL HOU

Client Sample ID: NFP - MW53 -29-30- 08222019

Lab Sample ID: 600-190733-6

Date Collected: 08/22/19 12:35

Matrix: Solid

Date Received: 08/23/19 09:48

Percent Solids: 89.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.89 g	5 mL	272971	08/23/19 18:15	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	273018	08/27/19 16:30	WS1	TAL HOU

Client Sample ID: NFP - MW53 -32-33- 08222019

Lab Sample ID: 600-190733-7

Date Collected: 08/22/19 13:30

Matrix: Solid

Date Received: 08/23/19 09:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			272969	08/26/19 15:21	AP	TAL HOU

Client Sample ID: NFP - MW53 -32-33- 08222019

Lab Sample ID: 600-190733-7

Date Collected: 08/22/19 13:30

Matrix: Solid

Date Received: 08/23/19 09:48

Percent Solids: 90.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.16 g	5 mL	272971	08/23/19 18:15	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	273018	08/27/19 16:54	WS1	TAL HOU

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Eurofins TestAmerica, Houston

Accreditation/Certification Summary

Client: CH2M Hill, Inc.

Job ID: 600-190733-1

Project/Site: Kinder Morgan Blanco Field NFP 08/22/19

Laboratory: Eurofins TestAmerica, Houston

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State Program	19-040-0	08-04-20
Louisiana	NELAP	01967	06-30-20
Texas	NELAP	T104704223-18-23	10-31-19
USDA	Federal	P330-18-00130	04-30-21
Utah	NELAP	TX000832019-5	07-31-20

Eurofins TestAmerica, Houston

6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record



Environment Testing
TestAmerica

Ref:
Dep:

Date: 06Aug19
Wgt: 50.00 LBS

SHIPPING:
SPECIAL:
HANDLING:
TOTAL:

0.00
0.00
0.00
0.00

DV:

0.00

Svcs: PRIORITY OVERNIGHT Master 4840 2907 1451
TRACK: 4840 2907 1462

Client Information		Lab PM:		Carrier Tracking No(s):		COC No:	
Sample: <u>A. Tuckase</u> Phone: <u>607-329-7247</u>		McDaniel, Bethany A E-Mail: <u>bethany.mcdaniel@testamericainc.com</u>		<u>4840 2907 1462</u>		<u>600-70257-19219.1</u>	
Company: CH2M Hill, Inc.				Page: 1 of 1		Job #:	
Address: 3721 Rutledge Rd. NE Suite B-1 City: Albuquerque State, Zip: NM, 87109 Phone: 505-855-5239(Tel) Email: <u>jeffrey.minchak@jacobs.com</u> Project Name: Kinder Morgan Bloomfield, NM NFP Site: <u>Blanco Bach Flare P.7</u>							
Due Date Requested: TAT Requested (days): PO #: <u>WD293112</u> WO #: Project #: <u>60004617</u> SSOW #:							
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=solid, O=Other, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested
NFP-TBO7-08222019	8/22/19	1100	G	Water			8260B, 7470A, 8260B, 8270C, TCLP
NFP-EB06-08222019	8/22/19	1115	G	Wsolid			8260B, 7470A, 8260B, 8270C, TCLP
NFP-MW53-9-10-08222019	8/22/19	1205	G	S			8260B, 7470A, 8260B, 8270C, TCLP
NFP-MW53-9-10-08222019-2	8/22/19	1205	G	S			8260B, 7470A, 8260B, 8270C, TCLP
NFP-MW53-14-20-08222019	8/22/19	1225	G	S			8260B, 7470A, 8260B, 8270C, TCLP
NFP-MW53-29-30-08222019	8/22/19	1235	G	S			8260B, 7470A, 8260B, 8270C, TCLP
NFP-MW53-32-33-08222019	8/22/19	1330	G	S			8260B, 7470A, 8260B, 8270C, TCLP
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV, Other (specify)							
Empty Kit Relinquished by: _____ Date: _____ Relinquished by: _____ Date/Time: _____ Relinquished by: _____ Date/Time: _____ Relinquished by: _____ Date/Time: _____							
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Month							
Special Instructions/QC Requirements:							
Method of Shipment: _____ Date/Time: _____ Received by: <u>JACOB</u> Company: <u>JACOBS</u> Received by: _____ Date/Time: _____ Received by: _____ Date/Time: _____ Cooler Temperature(s) °C and Other Remarks:							

TestAmerica Houston

Loc: 600
190733

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sample Receipt Checklist

19 AUG 23 9:48

JOB NUMBER: _____

Date/Time Received: _____

CLIENT: CH2M HillUNPACKED BY: YRCARRIER/DRIVER: FedexCustody Seal Present: ☒ YES ☐ NONumber of Coolers Received: 1

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
<u>BKI</u>	Y / N	Y / N	<u>3.1</u>	<u>678</u>	<u>+0.1</u>	<u>3.2</u>
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? ☒ YES ☐ NOLABORATORY PRESERVATION OF SAMPLES REQUIRED: ☒ NO ☐ YESBase samples are >pH 12: ☐ YES ☐ NOAcid preserved are <pH 2: ☐ YES ☐ NO

pH paper Lot # _____

VOA headspace acceptable (5-6mm): ☐ YES ☐ NO ☒ NA

	YES	NO
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	☒	☐

COMMENTS:

YR 8/23/19

Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 600-190733-1

Login Number: 190733

List Source: Eurofins TestAmerica, Houston

List Number: 1

Creator: Rubio, Yuri

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
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	3.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.



Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

Laboratory Job ID: 600-190912-1

Client Project/Site: Kinder Morgan Blanco Field NFP 08/24/19
Revision: 1

For:

CH2M Hill, Inc.
3721 Rutledge Rd. NE
Suite B-1
Albuquerque, New Mexico 87109

Attn: Aleeca Forsberg

Authorized for release by:

12/10/2020 11:03:35 AM

Steve Stepanski, Project Mgmt. Assistant
(713)690-4444

steve.stepanski@Eurofinset.com

Designee for

Bethany McDaniel, Senior Project Manager
(713)358-2005

bethany.mcdaniel@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.

Client: CH2M Hill, Inc.

Laboratory Job ID: 600-190912-1

Project/Site: Kinder Morgan Blanco Field NFP 08/24/19

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Case Narrative

Client: CH2M Hill, Inc.
Project/Site: Kinder Morgan Blanco Field NFP 08/24/19

Job ID: 600-190912-1

Job ID: 600-190912-1

Laboratory: Eurofins TestAmerica, Houston

Narrative

Job Narrative 600-190912-1

Comments

This report was revised to a Level 2 deliverable per client's request.

Receipt

The samples were received on 8/27/2019 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.2° C.

GC/MS VOA

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

General Chemistry

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

Method Summary

Client: CH2M Hill, Inc.

Job ID: 600-190912-1

Project/Site: Kinder Morgan Blanco Field NFP 08/24/19

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
2540B	Percent Moisture	SM20	TAL HOU
5030B	Purge and Trap	SW846	TAL HOU
5030B	Purge-and-Trap for Aqueous Samples/Unpreserved	SW846	TAL HOU
5035_ASP	Closed System Purge and Trap	SW846	TAL HOU

Protocol References:

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: CH2M Hill, Inc.

Job ID: 600-190912-1

Project/Site: Kinder Morgan Blanco Field NFP 08/24/19

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-190912-1	NFP- TBO8 - 08242019	Water	08/24/19 08:00	08/27/19 10:00	
600-190912-2	NFP- EBO7 - 08242019	Water	08/24/19 08:10	08/27/19 10:00	
600-190912-3	NFP - MW52 - 10 - 11 - 08242019	Solid	08/24/19 08:25	08/27/19 10:00	
600-190912-4	NFP - MW52 - 19 - 20 - 08242019	Solid	08/24/19 08:35	08/27/19 10:00	
600-190912-5	NFP - MW52 - 29 - 30 - 08242019	Solid	08/24/19 09:05	08/27/19 10:00	
600-190912-6	NFP - MW52 - 36 - 37 - 08242019	Solid	08/24/19 09:40	08/27/19 10:00	

Client Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190912-1

Project/Site: Kinder Morgan Blanco Field NFP 08/24/19

Client Sample ID: NFP- TBO8 - 08242019

Lab Sample ID: 600-190912-1

Date Collected: 08/24/19 08:00

Matrix: Water

Date Received: 08/27/19 10:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			08/29/19 14:28	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			08/29/19 14:28	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			08/29/19 14:28	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			08/29/19 14:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77		50 - 134		08/29/19 14:28	1
Dibromofluoromethane	81		62 - 130		08/29/19 14:28	1
Toluene-d8 (Surr)	98		70 - 130		08/29/19 14:28	1
4-Bromofluorobenzene	114		67 - 139		08/29/19 14:28	1

Client Sample ID: NFP- EBO7 - 08242019

Lab Sample ID: 600-190912-2

Date Collected: 08/24/19 08:10

Matrix: Water

Date Received: 08/27/19 10:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			08/29/19 14:56	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			08/29/19 14:56	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			08/29/19 14:56	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			08/29/19 14:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	81		50 - 134		08/29/19 14:56	1
Dibromofluoromethane	81		62 - 130		08/29/19 14:56	1
Toluene-d8 (Surr)	99		70 - 130		08/29/19 14:56	1
4-Bromofluorobenzene	113		67 - 139		08/29/19 14:56	1

Client Sample ID: NFP - MW52 - 10 - 11 - 08242019

Lab Sample ID: 600-190912-3

Date Collected: 08/24/19 08:25

Matrix: Solid

Date Received: 08/27/19 10:00

Percent Solids: 94.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000647	U	0.00514	0.000647	mg/Kg	☼	08/27/19 15:05	08/30/19 01:53	1
Ethylbenzene	0.00105	U	0.00514	0.00105	mg/Kg	☼	08/27/19 15:05	08/30/19 01:53	1
Toluene	0.00142	U	0.00514	0.00142	mg/Kg	☼	08/27/19 15:05	08/30/19 01:53	1
Xylenes, Total	0.00116	U	0.00514	0.00116	mg/Kg	☼	08/27/19 15:05	08/30/19 01:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		61 - 130	08/27/19 15:05	08/30/19 01:53	1
Dibromofluoromethane	95		68 - 140	08/27/19 15:05	08/30/19 01:53	1
Toluene-d8 (Surr)	95		50 - 130	08/27/19 15:05	08/30/19 01:53	1
4-Bromofluorobenzene	90		57 - 140	08/27/19 15:05	08/30/19 01:53	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.5		1.0	1.0	%			08/28/19 15:20	1
Percent Solids	94.5		1.0	1.0	%			08/28/19 15:20	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190912-1

Project/Site: Kinder Morgan Blanco Field NFP 08/24/19

Client Sample ID: NFP - MW52 - 19 - 20 - 08242019

Lab Sample ID: 600-190912-4

Date Collected: 08/24/19 08:35

Matrix: Solid

Date Received: 08/27/19 10:00

Percent Solids: 97.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000629	U	0.00499	0.000629	mg/Kg	☼	08/27/19 15:05	08/31/19 11:18	1
Ethylbenzene	0.00102	U	0.00499	0.00102	mg/Kg	☼	08/27/19 15:05	08/31/19 11:18	1
Toluene	0.00138	U	0.00499	0.00138	mg/Kg	☼	08/27/19 15:05	08/31/19 11:18	1
Xylenes, Total	0.00113	U	0.00499	0.00113	mg/Kg	☼	08/27/19 15:05	08/31/19 11:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	81		61 - 130	08/27/19 15:05	08/31/19 11:18	1
Dibromofluoromethane	91		68 - 140	08/27/19 15:05	08/31/19 11:18	1
Toluene-d8 (Surr)	99		50 - 130	08/27/19 15:05	08/31/19 11:18	1
4-Bromofluorobenzene	96		57 - 140	08/27/19 15:05	08/31/19 11:18	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	2.6		1.0	1.0	%			08/28/19 15:20	1
Percent Solids	97.4		1.0	1.0	%			08/28/19 15:20	1

Client Sample ID: NFP - MW52 - 29 - 30 - 08242019

Lab Sample ID: 600-190912-5

Date Collected: 08/24/19 09:05

Matrix: Solid

Date Received: 08/27/19 10:00

Percent Solids: 92.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000671	U	0.00532	0.000671	mg/Kg	☼	08/27/19 15:05	08/30/19 09:03	1
Ethylbenzene	0.00109	U	0.00532	0.00109	mg/Kg	☼	08/27/19 15:05	08/30/19 09:03	1
Toluene	0.00147	U	0.00532	0.00147	mg/Kg	☼	08/27/19 15:05	08/30/19 09:03	1
Xylenes, Total	0.00120	U	0.00532	0.00120	mg/Kg	☼	08/27/19 15:05	08/30/19 09:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		61 - 130	08/27/19 15:05	08/30/19 09:03	1
Dibromofluoromethane	95		68 - 140	08/27/19 15:05	08/30/19 09:03	1
Toluene-d8 (Surr)	90		50 - 130	08/27/19 15:05	08/30/19 09:03	1
4-Bromofluorobenzene	88		57 - 140	08/27/19 15:05	08/30/19 09:03	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.8		1.0	1.0	%			08/28/19 15:20	1
Percent Solids	92.2		1.0	1.0	%			08/28/19 15:20	1

Client Sample ID: NFP - MW52 - 36 - 37 - 08242019

Lab Sample ID: 600-190912-6

Date Collected: 08/24/19 09:40

Matrix: Solid

Date Received: 08/27/19 10:00

Percent Solids: 94.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000641	U	0.00509	0.000641	mg/Kg	☼	08/27/19 15:05	08/31/19 11:45	1
Ethylbenzene	0.00104	U	0.00509	0.00104	mg/Kg	☼	08/27/19 15:05	08/31/19 11:45	1
Toluene	0.00141	U	0.00509	0.00141	mg/Kg	☼	08/27/19 15:05	08/31/19 11:45	1
Xylenes, Total	0.00115	U	0.00509	0.00115	mg/Kg	☼	08/27/19 15:05	08/31/19 11:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		61 - 130	08/27/19 15:05	08/31/19 11:45	1
Dibromofluoromethane	94		68 - 140	08/27/19 15:05	08/31/19 11:45	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190912-1

Project/Site: Kinder Morgan Blanco Field NFP 08/24/19

Client Sample ID: NFP - MW52 - 36 - 37 - 08242019

Lab Sample ID: 600-190912-6

Date Collected: 08/24/19 09:40

Matrix: Solid

Date Received: 08/27/19 10:00

Percent Solids: 94.3

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		50 - 130	08/27/19 15:05	08/31/19 11:45	1
4-Bromofluorobenzene	94		57 - 140	08/27/19 15:05	08/31/19 11:45	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.7		1.0	1.0	%			08/28/19 15:20	1
Percent Solids	94.3		1.0	1.0	%			08/28/19 15:20	1

Definitions/Glossary

Client: CH2M Hill, Inc.

Job ID: 600-190912-1

Project/Site: Kinder Morgan Blanco Field NFP 08/24/19

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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)

Surrogate Summary

Client: CH2M Hill, Inc.

Job ID: 600-190912-1

Project/Site: Kinder Morgan Blanco Field NFP 08/24/19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-190912-3	NFP - MW52 - 10 - 11 - 08242019	87	95	95	90
600-190912-4	NFP - MW52 - 19 - 20 - 08242019	81	91	99	96
600-190912-5	NFP - MW52 - 29 - 30 - 08242019	96	95	90	88
600-190912-5 MS	NFP - MW52 - 29 - 30 - 08242019	85	97	98	82
600-190912-5 MSD	NFP - MW52 - 29 - 30 - 08242019	83	94	98	84
600-190912-6	NFP - MW52 - 36 - 37 - 08242019	83	94	97	94
LCS 600-273347/3	Lab Control Sample	85	93	93	93
LCS 600-273404/3	Lab Control Sample	82	93	97	92
LCS 600-273460/3	Lab Control Sample	85	98	99	90
LCSD 600-273347/4	Lab Control Sample Dup	82	93	96	92
LCSD 600-273404/4	Lab Control Sample Dup	77	91	97	91
LCSD 600-273460/4	Lab Control Sample Dup	86	96	96	90
MB 600-273347/6	Method Blank	99	96	91	92
MB 600-273404/6	Method Blank	99	97	95	90
MB 600-273460/6	Method Blank	103	102	97	94

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (50-134)	DBFM (62-130)	TOL (70-130)	BFB (67-139)
600-190912-1	NFP- TBO8 - 08242019	77	81	98	114
600-190912-2	NFP- EBO7 - 08242019	81	81	99	113
LCS 600-273315/3	Lab Control Sample	77	89	105	111
LCSD 600-273315/4	Lab Control Sample Dup	76	87	106	112
MB 600-273315/6	Method Blank	81	83	100	116

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Eurofins TestAmerica, Houston

QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190912-1

Project/Site: Kinder Morgan Blanco Field NFP 08/24/19

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: 600-190912-5 MS

Client Sample ID: NFP - MW52 - 29 - 30 - 08242019

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 273404

Prep Batch: 273199

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.000671	U	0.0488	0.04542		mg/Kg	☼	93	70 - 131
Ethylbenzene	0.00109	U	0.0488	0.04301		mg/Kg	☼	88	66 - 130
Toluene	0.00147	U	0.0488	0.04438		mg/Kg	☼	91	67 - 130
Xylenes, Total	0.00120	U	0.0977	0.08652		mg/Kg	☼	89	63 - 130

Surrogate	MS %Recovery	MS Qualifier	MS Limits
1,2-Dichloroethane-d4 (Surr)	85		61 - 130
Dibromofluoromethane	97		68 - 140
Toluene-d8 (Surr)	98		50 - 130
4-Bromofluorobenzene	82		57 - 140

Lab Sample ID: 600-190912-5 MSD

Client Sample ID: NFP - MW52 - 29 - 30 - 08242019

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 273404

Prep Batch: 273199

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.000671	U	0.0531	0.04204		mg/Kg	☼	79	70 - 131	8	30
Ethylbenzene	0.00109	U	0.0531	0.03846		mg/Kg	☼	72	66 - 130	11	30
Toluene	0.00147	U	0.0531	0.04154		mg/Kg	☼	78	67 - 130	7	30
Xylenes, Total	0.00120	U	0.106	0.07793		mg/Kg	☼	73	63 - 130	10	30

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
1,2-Dichloroethane-d4 (Surr)	83		61 - 130
Dibromofluoromethane	94		68 - 140
Toluene-d8 (Surr)	98		50 - 130
4-Bromofluorobenzene	84		57 - 140

Lab Sample ID: MB 600-273315/6

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 273315

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			08/29/19 14:00	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			08/29/19 14:00	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			08/29/19 14:00	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			08/29/19 14:00	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	81		50 - 134		08/29/19 14:00	1
Dibromofluoromethane	83		62 - 130		08/29/19 14:00	1
Toluene-d8 (Surr)	100		70 - 130		08/29/19 14:00	1
4-Bromofluorobenzene	116		67 - 139		08/29/19 14:00	1

Eurofins TestAmerica, Houston

QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190912-1

Project/Site: Kinder Morgan Blanco Field NFP 08/24/19

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

Lab Sample ID: LCS 600-273315/3

Matrix: Water

Analysis Batch: 273315

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.01118		mg/L		112	70 - 130
Ethylbenzene	0.0100	0.01142		mg/L		114	70 - 130
Toluene	0.0100	0.01163		mg/L		116	70 - 130
Xylenes, Total	0.0200	0.02296		mg/L		115	70 - 130
o-Xylene	0.0100	0.01140		mg/L		114	70 - 130
m-Xylene & p-Xylene	0.0100	0.01156		mg/L		116	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	77		50 - 134
Dibromofluoromethane	89		62 - 130
Toluene-d8 (Surr)	105		70 - 130
4-Bromofluorobenzene	111		67 - 139

Lab Sample ID: LCSD 600-273315/4

Matrix: Water

Analysis Batch: 273315

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
Benzene	0.0100	0.01049		mg/L		105	70 - 130	6	20
Ethylbenzene	0.0100	0.01077		mg/L		108	70 - 130	6	20
Toluene	0.0100	0.01095		mg/L		109	70 - 130	6	20
Xylenes, Total	0.0200	0.02165		mg/L		108	70 - 130	6	20
o-Xylene	0.0100	0.01073		mg/L		107	70 - 130	6	20
m-Xylene & p-Xylene	0.0100	0.01092		mg/L		109	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	76		50 - 134
Dibromofluoromethane	87		62 - 130
Toluene-d8 (Surr)	106		70 - 130
4-Bromofluorobenzene	112		67 - 139

Lab Sample ID: MB 600-273347/6

Matrix: Solid

Analysis Batch: 273347

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			08/29/19 17:02	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			08/29/19 17:02	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			08/29/19 17:02	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			08/29/19 17:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		61 - 130		08/29/19 17:02	1
Dibromofluoromethane	96		68 - 140		08/29/19 17:02	1
Toluene-d8 (Surr)	91		50 - 130		08/29/19 17:02	1
4-Bromofluorobenzene	92		57 - 140		08/29/19 17:02	1

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QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190912-1

Project/Site: Kinder Morgan Blanco Field NFP 08/24/19

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

Lab Sample ID: LCS 600-273347/3

Matrix: Solid

Analysis Batch: 273347

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.05728		mg/Kg		115	70 - 131
Ethylbenzene	0.0500	0.05332		mg/Kg		107	66 - 130
Toluene	0.0500	0.05346		mg/Kg		107	67 - 130
Xylenes, Total	0.100	0.1075		mg/Kg		108	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	85		61 - 130
Dibromofluoromethane	93		68 - 140
Toluene-d8 (Surr)	93		50 - 130
4-Bromofluorobenzene	93		57 - 140

Lab Sample ID: LCSD 600-273347/4

Matrix: Solid

Analysis Batch: 273347

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
Benzene	0.0500	0.05225		mg/Kg		105	70 - 131	9	30
Ethylbenzene	0.0500	0.04870		mg/Kg		97	66 - 130	9	30
Toluene	0.0500	0.04969		mg/Kg		99	67 - 130	7	30
Xylenes, Total	0.100	0.09848		mg/Kg		98	63 - 130	9	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	82		61 - 130
Dibromofluoromethane	93		68 - 140
Toluene-d8 (Surr)	96		50 - 130
4-Bromofluorobenzene	92		57 - 140

Lab Sample ID: MB 600-273404/6

Matrix: Solid

Analysis Batch: 273404

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			08/30/19 08:40	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			08/30/19 08:40	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			08/30/19 08:40	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			08/30/19 08:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		61 - 130		08/30/19 08:40	1
Dibromofluoromethane	97		68 - 140		08/30/19 08:40	1
Toluene-d8 (Surr)	95		50 - 130		08/30/19 08:40	1
4-Bromofluorobenzene	90		57 - 140		08/30/19 08:40	1

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QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190912-1

Project/Site: Kinder Morgan Blanco Field NFP 08/24/19

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

Lab Sample ID: LCS 600-273404/3

Matrix: Solid

Analysis Batch: 273404

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.05009		mg/Kg		100	70 - 131
Ethylbenzene	0.0500	0.04758		mg/Kg		95	66 - 130
Toluene	0.0500	0.04746		mg/Kg		95	67 - 130
Xylenes, Total	0.100	0.09547		mg/Kg		95	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	82		61 - 130
Dibromofluoromethane	93		68 - 140
Toluene-d8 (Surr)	97		50 - 130
4-Bromofluorobenzene	92		57 - 140

Lab Sample ID: LCSD 600-273404/4

Matrix: Solid

Analysis Batch: 273404

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
Benzene	0.0500	0.04974		mg/Kg		99	70 - 131	1	30
Ethylbenzene	0.0500	0.04911		mg/Kg		98	66 - 130	3	30
Toluene	0.0500	0.04877		mg/Kg		98	67 - 130	3	30
Xylenes, Total	0.100	0.09845		mg/Kg		98	63 - 130	3	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	77		61 - 130
Dibromofluoromethane	91		68 - 140
Toluene-d8 (Surr)	97		50 - 130
4-Bromofluorobenzene	91		57 - 140

Lab Sample ID: MB 600-273460/6

Matrix: Solid

Analysis Batch: 273460

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			08/31/19 10:52	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			08/31/19 10:52	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			08/31/19 10:52	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			08/31/19 10:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		61 - 130		08/31/19 10:52	1
Dibromofluoromethane	102		68 - 140		08/31/19 10:52	1
Toluene-d8 (Surr)	97		50 - 130		08/31/19 10:52	1
4-Bromofluorobenzene	94		57 - 140		08/31/19 10:52	1

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QC Sample Results

Client: CH2M Hill, Inc.

Job ID: 600-190912-1

Project/Site: Kinder Morgan Blanco Field NFP 08/24/19

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

Lab Sample ID: LCS 600-273460/3

Matrix: Solid

Analysis Batch: 273460

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.05500		mg/Kg		110	70 - 131
Ethylbenzene	0.0500	0.05181		mg/Kg		104	66 - 130
Toluene	0.0500	0.05363		mg/Kg		107	67 - 130
Xylenes, Total	0.100	0.1013		mg/Kg		101	63 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	85		61 - 130
Dibromofluoromethane	98		68 - 140
Toluene-d8 (Surr)	99		50 - 130
4-Bromofluorobenzene	90		57 - 140

Lab Sample ID: LCSD 600-273460/4

Matrix: Solid

Analysis Batch: 273460

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
Benzene	0.0500	0.05128		mg/Kg		103	70 - 131	7	30
Ethylbenzene	0.0500	0.04858		mg/Kg		97	66 - 130	6	30
Toluene	0.0500	0.04887		mg/Kg		98	67 - 130	9	30
Xylenes, Total	0.100	0.09723		mg/Kg		97	63 - 130	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	86		61 - 130
Dibromofluoromethane	96		68 - 140
Toluene-d8 (Surr)	96		50 - 130
4-Bromofluorobenzene	90		57 - 140

Eurofins TestAmerica, Houston

QC Association Summary

Client: CH2M Hill, Inc.

Job ID: 600-190912-1

Project/Site: Kinder Morgan Blanco Field NFP 08/24/19

GC/MS VOA

Prep Batch: 273199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190912-3	NFP - MW52 - 10 - 11 - 08242019	Total/NA	Solid	5035_ASP	
600-190912-4	NFP - MW52 - 19 - 20 - 08242019	Total/NA	Solid	5035_ASP	
600-190912-5	NFP - MW52 - 29 - 30 - 08242019	Total/NA	Solid	5035_ASP	
600-190912-6	NFP - MW52 - 36 - 37 - 08242019	Total/NA	Solid	5035_ASP	
600-190912-5 MS	NFP - MW52 - 29 - 30 - 08242019	Total/NA	Solid	5035_ASP	
600-190912-5 MSD	NFP - MW52 - 29 - 30 - 08242019	Total/NA	Solid	5035_ASP	

Analysis Batch: 273315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190912-1	NFP- TBO8 - 08242019	Total/NA	Water	8260B	
600-190912-2	NFP- EBO7 - 08242019	Total/NA	Water	8260B	
MB 600-273315/6	Method Blank	Total/NA	Water	8260B	
LCS 600-273315/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-273315/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 273347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190912-3	NFP - MW52 - 10 - 11 - 08242019	Total/NA	Solid	8260B	273199
MB 600-273347/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-273347/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-273347/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

Analysis Batch: 273404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190912-5	NFP - MW52 - 29 - 30 - 08242019	Total/NA	Solid	8260B	273199
MB 600-273404/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-273404/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-273404/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
600-190912-5 MS	NFP - MW52 - 29 - 30 - 08242019	Total/NA	Solid	8260B	273199
600-190912-5 MSD	NFP - MW52 - 29 - 30 - 08242019	Total/NA	Solid	8260B	273199

Analysis Batch: 273460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190912-4	NFP - MW52 - 19 - 20 - 08242019	Total/NA	Solid	8260B	273199
600-190912-6	NFP - MW52 - 36 - 37 - 08242019	Total/NA	Solid	8260B	273199
MB 600-273460/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-273460/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-273460/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

General Chemistry

Analysis Batch: 273237

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-190912-3	NFP - MW52 - 10 - 11 - 08242019	Total/NA	Solid	2540B	
600-190912-4	NFP - MW52 - 19 - 20 - 08242019	Total/NA	Solid	2540B	
600-190912-5	NFP - MW52 - 29 - 30 - 08242019	Total/NA	Solid	2540B	
600-190912-6	NFP - MW52 - 36 - 37 - 08242019	Total/NA	Solid	2540B	
600-190912-5 MS	NFP - MW52 - 29 - 30 - 08242019	Total/NA	Solid	2540B	
600-190912-5 MSD	NFP - MW52 - 29 - 30 - 08242019	Total/NA	Solid	2540B	

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Lab Chronicle

Client: CH2M Hill, Inc.

Job ID: 600-190912-1

Project/Site: Kinder Morgan Blanco Field NFP 08/24/19

Client Sample ID: NFP- TBO8 - 08242019

Lab Sample ID: 600-190912-1

Date Collected: 08/24/19 08:00

Matrix: Water

Date Received: 08/27/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	273315	08/29/19 14:28	YX1	TAL HOU

Client Sample ID: NFP- EBO7 - 08242019

Lab Sample ID: 600-190912-2

Date Collected: 08/24/19 08:10

Matrix: Water

Date Received: 08/27/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	273315	08/29/19 14:56	YX1	TAL HOU

Client Sample ID: NFP - MW52 - 10 - 11 - 08242019

Lab Sample ID: 600-190912-3

Date Collected: 08/24/19 08:25

Matrix: Solid

Date Received: 08/27/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			273237	08/28/19 15:20	AP	TAL HOU

Client Sample ID: NFP - MW52 - 10 - 11 - 08242019

Lab Sample ID: 600-190912-3

Date Collected: 08/24/19 08:25

Matrix: Solid

Date Received: 08/27/19 10:00

Percent Solids: 94.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.15 g	5 mL	273199	08/27/19 15:05	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	273347	08/30/19 01:53	WS1	TAL HOU

Client Sample ID: NFP - MW52 - 19 - 20 - 08242019

Lab Sample ID: 600-190912-4

Date Collected: 08/24/19 08:35

Matrix: Solid

Date Received: 08/27/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			273237	08/28/19 15:20	AP	TAL HOU

Client Sample ID: NFP - MW52 - 19 - 20 - 08242019

Lab Sample ID: 600-190912-4

Date Collected: 08/24/19 08:35

Matrix: Solid

Date Received: 08/27/19 10:00

Percent Solids: 97.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.14 g	5 mL	273199	08/27/19 15:05	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	273460	08/31/19 11:18	WS1	TAL HOU

Client Sample ID: NFP - MW52 - 29 - 30 - 08242019

Lab Sample ID: 600-190912-5

Date Collected: 08/24/19 09:05

Matrix: Solid

Date Received: 08/27/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			273237	08/28/19 15:20	AP	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: CH2M Hill, Inc.

Job ID: 600-190912-1

Project/Site: Kinder Morgan Blanco Field NFP 08/24/19

Client Sample ID: NFP - MW52 - 29 - 30 - 08242019

Lab Sample ID: 600-190912-5

Date Collected: 08/24/19 09:05

Matrix: Solid

Date Received: 08/27/19 10:00

Percent Solids: 92.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.09 g	5 mL	273199	08/27/19 15:05	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	273404	08/30/19 09:03	WS1	TAL HOU

Client Sample ID: NFP - MW52 - 36 - 37 - 08242019

Lab Sample ID: 600-190912-6

Date Collected: 08/24/19 09:40

Matrix: Solid

Date Received: 08/27/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1			273237	08/28/19 15:20	AP	TAL HOU

Client Sample ID: NFP - MW52 - 36 - 37 - 08242019

Lab Sample ID: 600-190912-6

Date Collected: 08/24/19 09:40

Matrix: Solid

Date Received: 08/27/19 10:00

Percent Solids: 94.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035_ASP			5.21 g	5 mL	273199	08/27/19 15:05	WS1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	273460	08/31/19 11:45	WS1	TAL HOU

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Accreditation/Certification Summary

Client: CH2M Hill, Inc.

Job ID: 600-190912-1

Project/Site: Kinder Morgan Blanco Field NFP 08/24/19

Laboratory: Eurofins TestAmerica, Houston

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State Program	19-040-0	08-04-20
Louisiana	NELAP	01967	06-30-20
Texas	NELAP	T104704223-18-23	10-31-19
USDA	Federal	P330-18-00130	04-30-21
Utah	NELAP	TX000832019-5	07-31-20

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record



Environment Testing
TestAmerica

Client Information		Sampler: <u>A. Tuckase</u>		Lab PM: <u>McDaniel, Bethany A</u>		Carrier Tracking No(s): <u>7760 0862 5369</u>		COC No: <u>600-70257-19219.1</u>	
Client Contact: <u>Jeffrey Minchak</u>		Phone: <u>600-7324-7247</u>		E-Mail: <u>bethany.mcdaniel@testamericainc.com</u>		Page 1 of 1		Job #:	
Company: <u>CH2M Hill, Inc.</u>		Address: <u>3721 Rutledge Rd. NE Suite B-1</u>		City: <u>Albuquerque</u>		State: <u>NM</u>		Zip: <u>87109</u>	
Phone: <u>505-855-5239(Tel)</u>		PO #: <u>WD293112</u>		WO #: <u>6004617</u>		Project #: <u>6004617</u>		SSOW#:	
Email: <u>jeffrey.minchak@jacobs.com</u>		Project Name: <u>Kindler Morgan Bloomfield, NM NEP</u>		Site: <u>Blairstown North Plaza Pit</u>		Sample Identification		Sample Date	
Sample Type (C=Comp, G=grab)		Sample Time		Sample Date		Sample Time		Sample Date	
Matrix (Water, Solid, On-water, BT-Tissue, AAR)		Preservation Code:		Sample Date		Sample Time		Sample Date	
NFP-TB06-08242019		G		0800		0814		0814	
NFP-EB07-08242019		G		0810		0814		0814	
NFP-MW52-10-11-08242019		G		0825		0814		0814	
NFP-MW52-14-20-08242019		G		0835		0814		0814	
NFP-MW52-24-30-08242019		G		0905		0814		0814	
NFP-MW52-30-37-08242019		G		0940		0814		0814	
600-190912 Chain of Custody		Barcode		Barcode		Barcode		Barcode	
Possible Hazard Identification		Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological ☐		Deliverable Requested: I, II, III, IV, Other (specify)		Empty Kit Relinquished by:		Date:	
Relinquished by: <u>[Signature]</u>		Date/Time: <u>8/26/19 1600</u>		Company: <u>Jacobs</u>		Received by: <u>[Signature]</u>		Date/Time: <u>8/27/19 1000</u>	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: <u>Δ Yes Δ No</u>		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Special Instructions/QC Requirements:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Return To Client ☐ Disposal By Lab ☐ Archive For ☐ Months		Method of Shipment:		Time:		Time:		Time:	
Total Number of containers		Analysis Requested		Analysis Requested		Analysis Requested		Analysis Requested	
A - HCL		M - Hexane		N - None		O - AsNaO2		P - Na2O4S	
B - NaOH		C - Zn Acetate		D - Nitric Acid		E - NaHSO4		F - MeOH	
G - Anchor		H - Ascorbic Acid		I - Ice		J - DI Water		K - EDTA	
L - EDA		Other:		T - TSP Dodecahydrate		U - Acetone		V - MCAA	
W - pH 4-5		Z - other (specify)		Special Instructions/Note:		Dry Ice			

Ver: 01/16/2019

Rev. 4A: 08/26/2019

HS-SA-WI-013

COMMENTS:
dry ice
8/27/19

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	☐ YES ☒ NO
---	---

pH paper Lot # _____ VOA headspace acceptable (5-6mm): ☒ YES ☐ NO ☐ NATX1005 samples frozen upon receipt: ☒ YES DATE & TIME PUT IN FREEZER: 8/27/19 1505Base samples are > pH 12: ☐ YES ☐ NO Acid preserved are < pH 2: ☐ YES ☐ NOLABORATORY PRESERVATION OF SAMPLES REQUIRED: ☒ NO ☐ YESSamples received on ice? ☒ YES ☐ NO

CF = correction factor

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
W18	Y / N	X / N	5.1	(0.1)	5.2	
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

Custody Seal Present: ☐ YES ☒ NO Number of Coolers Received: _____

UNPACKED BY: _____ CARRIER/DRIVER: FDOTX

JOB NUMBER: _____ CLIENT: CHAM HILL

Date/Time Received: _____

19 AUG 27 10:00

Sample Receipt Checklist

Eurofins TestAmerica Houston

Eurofins TestAmerica
Environment Testing

eurofins

190912
Loc: 600

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



XH LKSA

Fedex
TRK# 4840 2907 1495

TUE - 27 AUG 10:30A
PRIORITY OVERNIGHT

77040 IAH TX-US

0221

600-190912 Waybill



Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 600-190912-1

Login Number: 190912

List Source: Eurofins TestAmerica, Houston

List Number: 1

Creator: Rubio, Yuri

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
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	5.2/ dry ice
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 29757

CONDITIONS

Operator: El Paso Natural Gas Company, L.L.C 1001 Louisiana Street Houston, TX 77002	OGRID: 7046
	Action Number: 29757
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Accepted for the record. See app ID 94607 for most updated status.	10/26/2022