

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver

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Arvada, CO 80002

Tel: (303)736-0100

TestAmerica Job ID: 280-52988-1

Client Project/Site: ATWOOD, CO

For:

Colorado Oil&Gas Conservation Commision

1120 Lincoln St.

Suite 801

Denver, Colorado 80203

Attn: Mr. John Noto



Authorized for release by:

3/26/2014 11:34:14 AM

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The test results in this report meet all 2003 NELAC and 2009 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.

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Case Narrative

Client: Colorado Oil&Gas Conservation Commission
Project/Site: ATWOOD, CO

TestAmerica Job ID: 280-52988-1

Job ID: 280-52988-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Colorado Oil&Gas Conservation Commission

Project: ATWOOD, CO

Report Number: 280-52988-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received at the TestAmerica Denver laboratory on March 12, 2014. The samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.7°C.

GASOLINE RANGE ORGANICS (GRO)

Samples ATWOOD S001 (280-52988-1), ATWOOD S002 (280-52988-2) and ATWOOD S003 (280-52988-3) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO.

No difficulties were encountered during the GRO analysis.

All quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS

Samples ATWOOD S001 (280-52988-1), ATWOOD S002 (280-52988-2) and ATWOOD S003 (280-52988-3) were analyzed for diesel range organics in accordance with EPA SW-846 Method 8015B - DRO.

Samples ATWOOD S001 (280-52988-1) and ATWOOD S002 (280-52988-2) could not be concentrated to the final method required volume of 1.0mL due to the nature of the sample matrix. In addition these samples required a 10X dilution prior to analysis. The reporting limits have been adjusted accordingly. The surrogate o-Terphenyl was diluted below reportable limits.

No other difficulties were encountered during the DRO analysis.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS

Samples ATWOOD S001 (280-52988-1), ATWOOD S002 (280-52988-2) and ATWOOD S003 (280-52988-3) were analyzed for percent solids in accordance with EPA SW846 3550C.

No difficulties were encountered during the % solids analysis.

All quality control parameters were within the acceptance limits.

Case Narrative

Client: Colorado Oil&Gas Conservation Commision
Project/Site: ATWOOD, CO

TestAmerica Job ID: 280-52988-1

Job ID: 280-52988-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

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Definitions/Glossary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: ATWOOD, CO

TestAmerica Job ID: 280-52988-1

Qualifiers

GC 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.

GC Semi VOA

Qualifier	Qualifier Description
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
X	Surrogate is outside 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
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Detection Summary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: ATWOOD, CO

TestAmerica Job ID: 280-52988-1

Client Sample ID: ATWOOD S001

Lab Sample ID: 280-52988-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Gasoline Range Organics (GRO)	38		1.5	0.40	mg/Kg	1	☼	8015B	Total/NA
-C6-C10									
DRO (C10-C28)	84000		890	150	mg/Kg	10	☼	8015B	Total/NA
Motor Oil (C20-C38)	120000		2700	870	mg/Kg	10	☼	8015B	Total/NA

Client Sample ID: ATWOOD S002

Lab Sample ID: 280-52988-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Gasoline Range Organics (GRO)	12		1.3	0.36	mg/Kg	1	☼	8015B	Total/NA
-C6-C10									
DRO (C10-C28)	120000		1300	220	mg/Kg	10	☼	8015B	Total/NA
Motor Oil (C20-C38)	180000		3900	1300	mg/Kg	10	☼	8015B	Total/NA

Client Sample ID: ATWOOD S003

Lab Sample ID: 280-52988-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Gasoline Range Organics (GRO)	0.46	J	1.3	0.36	mg/Kg	1	☼	8015B	Total/NA
-C6-C10									
DRO (C10-C28)	200		4.4	0.74	mg/Kg	1	☼	8015B	Total/NA
Motor Oil (C20-C38)	520		13	4.3	mg/Kg	1	☼	8015B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Method Summary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: ATWOOD, CO

TestAmerica Job ID: 280-52988-1

Method	Method Description	Protocol	Laboratory
8015B	Gasoline Range Organics - (GC)	SW846	TAL DEN
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL DEN
Moisture	Percent Moisture	EPA	TAL DEN

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: ATWOOD, CO

TestAmerica Job ID: 280-52988-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-52988-1	ATWOOD S001	Solid	03/11/14 10:45	03/12/14 13:50
280-52988-2	ATWOOD S002	Solid	03/11/14 10:50	03/12/14 13:50
280-52988-3	ATWOOD S003	Solid	03/11/14 10:55	03/12/14 13:50

Client Sample Results

Client: Colorado Oil&Gas Conservation Commision
Project/Site: ATWOOD, CO

TestAmerica Job ID: 280-52988-1

Method: 8015B - Gasoline Range Organics - (GC)

Client Sample ID: ATWOOD S001

Date Collected: 03/11/14 10:45

Date Received: 03/12/14 13:50

Lab Sample ID: 280-52988-1

Matrix: Solid

Percent Solids: 80.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	38		1.5	0.40	mg/Kg	☼	03/13/14 10:41	03/13/14 16:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	104		77 - 123				03/13/14 10:41	03/13/14 16:21	1

Client Sample ID: ATWOOD S002

Date Collected: 03/11/14 10:50

Date Received: 03/12/14 13:50

Lab Sample ID: 280-52988-2

Matrix: Solid

Percent Solids: 88.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	12		1.3	0.36	mg/Kg	☼	03/13/14 10:41	03/13/14 14:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	120		77 - 123				03/13/14 10:41	03/13/14 14:18	1

Client Sample ID: ATWOOD S003

Date Collected: 03/11/14 10:55

Date Received: 03/12/14 13:50

Lab Sample ID: 280-52988-3

Matrix: Solid

Percent Solids: 87.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	0.46	J	1.3	0.36	mg/Kg	☼	03/13/14 10:41	03/13/14 14:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	96		77 - 123				03/13/14 10:41	03/13/14 14:48	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: ATWOOD S001

Date Collected: 03/11/14 10:45

Date Received: 03/12/14 13:50

Lab Sample ID: 280-52988-1

Matrix: Solid

Percent Solids: 80.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	84000		890	150	mg/Kg	☼	03/19/14 19:35	03/22/14 01:49	10
Motor Oil (C20-C38)	120000		2700	870	mg/Kg	☼	03/19/14 19:35	03/22/14 01:49	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	0	D X	49 - 115				03/19/14 19:35	03/22/14 01:49	10

Client Sample ID: ATWOOD S002

Date Collected: 03/11/14 10:50

Date Received: 03/12/14 13:50

Lab Sample ID: 280-52988-2

Matrix: Solid

Percent Solids: 88.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	120000		1300	220	mg/Kg	☼	03/19/14 19:35	03/22/14 02:17	10
Motor Oil (C20-C38)	180000		3900	1300	mg/Kg	☼	03/19/14 19:35	03/22/14 02:17	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	0	D X	49 - 115				03/19/14 19:35	03/22/14 02:17	10

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Client Sample Results

Client: Colorado Oil&Gas Conservation Commision
Project/Site: ATWOOD, CO

TestAmerica Job ID: 280-52988-1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: ATWOOD S003

Date Collected: 03/11/14 10:55

Date Received: 03/12/14 13:50

Lab Sample ID: 280-52988-3

Matrix: Solid

Percent Solids: 87.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	200		4.4	0.74	mg/Kg	☼	03/19/14 19:35	03/22/14 02:46	1
Motor Oil (C20-C38)	520		13	4.3	mg/Kg	☼	03/19/14 19:35	03/22/14 02:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	65		49 - 115				03/19/14 19:35	03/22/14 02:46	1

General Chemistry

Client Sample ID: ATWOOD S001

Date Collected: 03/11/14 10:45

Date Received: 03/12/14 13:50

Lab Sample ID: 280-52988-1

Matrix: Solid

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19		0.10	0.10	%	—		03/17/14 14:32	1

Client Sample ID: ATWOOD S002

Date Collected: 03/11/14 10:50

Date Received: 03/12/14 13:50

Lab Sample ID: 280-52988-2

Matrix: Solid

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11		0.10	0.10	%	—		03/17/14 14:32	1

Client Sample ID: ATWOOD S003

Date Collected: 03/11/14 10:55

Date Received: 03/12/14 13:50

Lab Sample ID: 280-52988-3

Matrix: Solid

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13		0.10	0.10	%	—		03/17/14 14:32	1

TestAmerica Denver

QC Association Summary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: ATWOOD, CO

TestAmerica Job ID: 280-52988-1

GC VOA

Prep Batch: 216705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-52988-1	ATWOOD S001	Total/NA	Solid	5030B	
280-52988-2	ATWOOD S002	Total/NA	Solid	5030B	
280-52988-3	ATWOOD S003	Total/NA	Solid	5030B	
280-52988-3 MS	ATWOOD S003	Total/NA	Solid	5030B	
280-52988-3 MSD	ATWOOD S003	Total/NA	Solid	5030B	
LCS 280-216705/2-A	Lab Control Sample	Total/NA	Solid	5030B	
MB 280-216705/1-A	Method Blank	Total/NA	Solid	5030B	

Analysis Batch: 216719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-52988-1	ATWOOD S001	Total/NA	Solid	8015B	216705
280-52988-2	ATWOOD S002	Total/NA	Solid	8015B	216705
280-52988-3	ATWOOD S003	Total/NA	Solid	8015B	216705
280-52988-3 MS	ATWOOD S003	Total/NA	Solid	8015B	216705
280-52988-3 MSD	ATWOOD S003	Total/NA	Solid	8015B	216705
LCS 280-216705/2-A	Lab Control Sample	Total/NA	Solid	8015B	216705
MB 280-216705/1-A	Method Blank	Total/NA	Solid	8015B	216705

GC Semi VOA

Prep Batch: 217517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-52988-1	ATWOOD S001	Total/NA	Solid	3546	
280-52988-2	ATWOOD S002	Total/NA	Solid	3546	
280-52988-3	ATWOOD S003	Total/NA	Solid	3546	
280-53076-A-4-B MS	Matrix Spike	Total/NA	Solid	3546	
280-53076-A-4-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	
280-53133-A-2-B MS	Matrix Spike	Total/NA	Solid	3546	
280-53133-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	
LCS 280-217517/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 280-217517/3-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-217517/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 217865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-52988-1	ATWOOD S001	Total/NA	Solid	8015B	217517
280-52988-2	ATWOOD S002	Total/NA	Solid	8015B	217517
280-52988-3	ATWOOD S003	Total/NA	Solid	8015B	217517
280-53076-A-4-B MS	Matrix Spike	Total/NA	Solid	8015B	217517
280-53076-A-4-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	217517
280-53133-A-2-B MS	Matrix Spike	Total/NA	Solid	8015B	217517
280-53133-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	217517
LCS 280-217517/2-A	Lab Control Sample	Total/NA	Solid	8015B	217517
LCS 280-217517/3-A	Lab Control Sample	Total/NA	Solid	8015B	217517
MB 280-217517/1-A	Method Blank	Total/NA	Solid	8015B	217517

TestAmerica Denver

QC Association Summary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: ATWOOD, CO

TestAmerica Job ID: 280-52988-1

General Chemistry

Analysis Batch: 217138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-52988-1	ATWOOD S001	Total/NA	Solid	Moisture	
280-52988-2	ATWOOD S002	Total/NA	Solid	Moisture	
280-52988-3	ATWOOD S003	Total/NA	Solid	Moisture	

QC Sample Results

Client: Colorado Oil&Gas Conservation Commision
Project/Site: ATWOOD, CO

TestAmerica Job ID: 280-52988-1

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 280-216705/1-A

Matrix: Solid

Analysis Batch: 216719

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 216705

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		1.2	0.33	mg/Kg		03/13/14 10:41	03/13/14 12:18	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	105		77 - 123				03/13/14 10:41	03/13/14 12:18	1

Lab Sample ID: LCS 280-216705/2-A

Matrix: Solid

Analysis Batch: 216719

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 216705

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C6-C10			5.50	6.51		mg/Kg		118	85 - 153
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
a,a,a-Trifluorotoluene	106		77 - 123						

Lab Sample ID: 280-52988-3 MS

Matrix: Solid

Analysis Batch: 216719

Client Sample ID: ATWOOD S003

Prep Type: Total/NA

Prep Batch: 216705

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C6-C10	0.46	J	6.23	6.70		mg/Kg	☼	100	85 - 153
Surrogate	MS %Recovery	MS Qualifier	Limits						
a,a,a-Trifluorotoluene	96		77 - 123						

Lab Sample ID: 280-52988-3 MSD

Matrix: Solid

Analysis Batch: 216719

Client Sample ID: ATWOOD S003

Prep Type: Total/NA

Prep Batch: 216705

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C6-C10	0.46	J	6.14	6.41		mg/Kg	☼	97	85 - 153	4	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
a,a,a-Trifluorotoluene	94		77 - 123								

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 280-217517/1-A

Matrix: Solid

Analysis Batch: 217865

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 217517

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		4.0	0.68	mg/Kg		03/19/14 19:35	03/21/14 16:44	1
Motor Oil (C20-C38)	ND		12	3.9	mg/Kg		03/19/14 19:35	03/21/14 16:44	1

TestAmerica Denver

QC Sample Results

Client: Colorado Oil&Gas Conservation Commision
Project/Site: ATWOOD, CO

TestAmerica Job ID: 280-52988-1

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 280-217517/1-A

Matrix: Solid

Analysis Batch: 217865

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 217517

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	75		49 - 115	03/19/14 19:35	03/21/14 16:44	1

Lab Sample ID: LCS 280-217517/2-A

Matrix: Solid

Analysis Batch: 217865

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 217517

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28)	66.6	59.7		mg/Kg		90	53 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	81		49 - 115

Lab Sample ID: LCS 280-217517/3-A

Matrix: Solid

Analysis Batch: 217865

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 217517

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Motor Oil (C20-C38)	167	147		mg/Kg		88	57 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	88		49 - 115

Lab Sample ID: 280-53076-A-4-B MS

Matrix: Solid

Analysis Batch: 217865

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 217517

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28)	ND		70.0	56.0		mg/Kg	☼	80	56 - 115

Surrogate	MS %Recovery	MS Qualifier	Limits
o-Terphenyl	74		49 - 115

Lab Sample ID: 280-53076-A-4-C MSD

Matrix: Solid

Analysis Batch: 217865

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 217517

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
DRO (C10-C28)	ND		68.9	54.7		mg/Kg	☼	79	56 - 115	2	23

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o-Terphenyl	72		49 - 115

TestAmerica Denver

QC Sample Results

Client: Colorado Oil&Gas Conservation Commission
Project/Site: ATWOOD, CO

TestAmerica Job ID: 280-52988-1

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 280-53133-A-2-B MS

Matrix: Solid

Analysis Batch: 217865

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 217517

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Motor Oil (C20-C38)	ND		161	145		mg/Kg		90	57 - 115
Surrogate	MS %Recovery	MS Qualifier	Limits						
o-Terphenyl	66		49 - 115						

Lab Sample ID: 280-53133-A-2-C MSD

Matrix: Solid

Analysis Batch: 217865

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 217517

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Motor Oil (C20-C38)	ND		153	137		mg/Kg		89	57 - 115	6	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
o-Terphenyl	68		49 - 115								

Lab Chronicle

Client: Colorado Oil&Gas Conservation Commision
Project/Site: ATWOOD, CO

TestAmerica Job ID: 280-52988-1

Client Sample ID: ATWOOD S001

Date Collected: 03/11/14 10:45

Date Received: 03/12/14 13:50

Lab Sample ID: 280-52988-1

Matrix: Solid

Percent Solids: 80.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			10.15 g	10 mL	216705	03/13/14 10:41	AMB1	TAL DEN
Total/NA	Analysis	8015B		1	10.15 g	10 mL	216719	03/13/14 16:21	AMB1	TAL DEN
Total/NA	Prep	3546			30.0 g	18 mL	217517	03/19/14 19:35	ACF	TAL DEN
Total/NA	Analysis	8015B		10	30.0 g	18 mL	217865	03/22/14 01:49	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			217138	03/17/14 14:32	AFB	TAL DEN

Client Sample ID: ATWOOD S002

Date Collected: 03/11/14 10:50

Date Received: 03/12/14 13:50

Lab Sample ID: 280-52988-2

Matrix: Solid

Percent Solids: 88.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			10.09 g	10 mL	216705	03/13/14 10:41	AMB1	TAL DEN
Total/NA	Analysis	8015B		1	10.09 g	10 mL	216719	03/13/14 14:18	AMB1	TAL DEN
Total/NA	Prep	3546			31.1 g	30 mL	217517	03/19/14 19:35	ACF	TAL DEN
Total/NA	Analysis	8015B		10	31.1 g	30 mL	217865	03/22/14 02:17	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			217138	03/17/14 14:32	AFB	TAL DEN

Client Sample ID: ATWOOD S003

Date Collected: 03/11/14 10:55

Date Received: 03/12/14 13:50

Lab Sample ID: 280-52988-3

Matrix: Solid

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	5030B			10.43 g	10 mL	216705	03/13/14 10:41	AMB1	TAL DEN
Total/NA	Analysis	8015B		1	10.43 g	10 mL	216719	03/13/14 14:48	AMB1	TAL DEN
Total/NA	Prep	3546			31.6 g	1 mL	217517	03/19/14 19:35	ACF	TAL DEN
Total/NA	Analysis	8015B		1	31.6 g	1 mL	217865	03/22/14 02:46	MRB	TAL DEN
Total/NA	Analysis	Moisture		1			217138	03/17/14 14:32	AFB	TAL DEN

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Login Sample Receipt Checklist

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-52988-1

Login Number: 52988

List Source: TestAmerica Denver

List Number: 1

Creator: O'Tormey, Stephanie R

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

