

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver

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Tel: (303)736-0100

TestAmerica Job ID: 280-94601-1

Client Project/Site: Stantec CVX - Rangely, CO

Revision: 1

For:

Stantec Consulting Corp.

2000 South Colorado Blvd

Suite 2-300

Denver, Colorado 80222

Attn: Ms. Bethany Lucente



Authorized for release by:

4/5/2017 3:55:24 PM

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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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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

GC/MS 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
F1	MS and/or MSD Recovery is outside acceptance limits.
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.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

GC 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
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

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
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
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, 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

TestAmerica Denver

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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)

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

Job ID: 280-94601-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Stantec Consulting Corp.
Project: Stantec CVX - Rangely, CO
Report Number: 280-94601-1

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.

REVISION - 4/5/17

Per client request 3/31/17, the ORO originally requested on the chain of custody was removed from the analytical report.

RECEIPT

The sample was received on 3/9/2017 7:35 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.6° C.

The chain of custody was not relinquished by the private courier to the laboratory. The laboratory will proceed with the requested analyses unless instructed otherwise. The client was notified on 3/9/2017.

The chain of custody requests DRO, ORO, and GRO analyses for sample RC4-SOURCE-TRUCK (280-94601-1) by Method 8015B as quoted by TestAmerica. However, the laboratory will perform these analyses by method 8015C as the more current method version is also compatible with the additionally requested silica gel clean-up pre-prep method. The client was notified on 3/9/2017.

The requested 7196A trivalent and hexavalent chromium analyses, and 9050A Electrical Conductivity analyses were performed by TestAmerica's Nashville laboratory.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample RC4-SOURCE-TRUCK (280-94601-1)[10X] required dilution prior to analysis due to the nature of the sample matrix. The reporting limits have been adjusted accordingly.

4-Bromofluorobenzene and Toluene-d8 failed the surrogate recovery criteria high for RC4-SOURCE-TRUCK (280-94601-1), RC4-SOURCE-TRUCKMS (280-94601-1MS), and RC4-SOURCE-TRUCKMSD (280-94601-1MSD). 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. The surrogate recoveries are calculated from diluted samples and in some cases are diluted below reportable limits.

The MS/MSD performed on sample RC4-SOURCE-TRUCK (280-94601-1) exhibited spike recoveries outside QC control limits for several analytes. The associated LCS was in control and demonstrates that operating procedures were in control. No further action was required. No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM)

2-Fluorobiphenyl, Nitrobenzene-d5, Terphenyl-d14, 2-Fluorobiphenyl, Nitrobenzene-d5 and Terphenyl-d14 failed the surrogate recovery criteria high for RC4-SOURCE-TRUCK (280-94601-1), RC4-SOURCE-TRUCKMS (280-94601-1MS), and RC4-SOURCE-TRUCKMSD (280-94601-1MSD). 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. The surrogate recoveries are calculated from diluted samples and in some cases are diluted below reportable limits.

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

Job ID: 280-94601-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

Samples RC4-SOURCE-TRUCK (280-94601-1)[100X] and RC4-SOURCE-TRUCK (280-94601-1)[40X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Anthracene was detected in method blank MB 280-364954/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

The MS/MSD performed on sample RC4-SOURCE-TRUCK (280-94601-1) exhibited spike recoveries and RPD data outside QC control limits for several analytes. The associated LCS was in control and demonstrates that operating procedures were in control. No further action was required.

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

GASOLINE RANGE ORGANICS (GRO)

a,a,a-Trifluorotoluene failed the surrogate recovery criteria high for RC4-SOURCE-TRUCK (280-94601-1), RC4-SOURCE-TRUCKMS (280-94601-1MS), and RC4-SOURCE-TRUCKMSD (280-94601-1MSD). Evidence of matrix interference is present; therefore, corrective action was not performed.

Sample RC4-SOURCE-TRUCK (280-94601-1)[100X] required dilution prior to analysis due to the nature of the sample matrix. The reporting limits have been adjusted accordingly.

The MS/MSD performed on sample RC4-SOURCE-TRUCK (280-94601-1) exhibited spike recoveries outside QC control limits for GRO (C6-C10). The associated LCS/LCSD was in control and demonstrates that operating procedures were in control. No further action was required.

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

DIESEL RANGE ORGANICS - SILICA GEL CLEAN UP

o-Terphenyl failed the surrogate recovery criteria high for RC4-SOURCE-TRUCK (280-94601-1), RC4-SOURCE-TRUCKMS (280-94601-1MS), and RC4-SOURCE-TRUCKMSD (280-94601-1MSD). 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. The surrogate recoveries are calculated from diluted samples and in some cases are diluted below reportable limits.

Sample RC4-SOURCE-TRUCK (280-94601-1)[20X] required dilution prior to analysis due to the nature of the sample matrix. The reporting limits have been adjusted accordingly.

The MS/MSD performed on sample RC4-SOURCE-TRUCK (280-94601-1) exhibited spike recoveries outside QC control limits for DRO (C10-C28). The associated LCS was in control and demonstrates that operating procedures were in control. No further action was required.

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

SODIUM ABSORPTION RATIO

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

TOTAL METALS (ICP)

Copper, Magnesium, Nickel, Barium and Calcium were detected in method blank MB 280-364932/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

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

METALS (ICPMS)

The MS/MSD performed on sample RC4-SOURCE-TRUCK (280-94601-1) exhibited spike recoveries outside QC control limits for Arsenic. The associated LCS was in control and demonstrates that operating procedures were in control. No further action was required.

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

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

Job ID: 280-94601-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

TOTAL MERCURY (CVAA)

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

HEXAVALENT CHROMIUM

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

TRIVALENT CHROMIUM

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

PH

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

ELECTRICAL CONDUCTIVITY

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

PERCENT SOLIDS

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

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

Client Sample ID: RC4-SOURCE-TRUCK

Lab Sample ID: 280-94601-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzene	1.3	J	2.8	0.51	mg/Kg	10	✱		8260B	Total/NA
Ethylbenzene	7.9	F1	2.8	0.38	mg/Kg	10	✱		8260B	Total/NA
Toluene	11		2.8	0.44	mg/Kg	10	✱		8260B	Total/NA
m-Xylene & p-Xylene	38		2.8	0.88	mg/Kg	10	✱		8260B	Total/NA
o-Xylene	15		1.4	0.39	mg/Kg	10	✱		8260B	Total/NA
Xylenes, Total	53		2.8	0.39	mg/Kg	10	✱		8260B	Total/NA
2-Methylnaphthalene	12		0.22	0.014	mg/Kg	40	✱		8270D SIM	Total/NA
Benzo[b]fluoranthene	0.063	J F1 F2	0.22	0.053	mg/Kg	40	✱		8270D SIM	Total/NA
Chrysene	0.81		0.22	0.044	mg/Kg	40	✱		8270D SIM	Total/NA
Fluorene	1.3		0.22	0.021	mg/Kg	40	✱		8270D SIM	Total/NA
Naphthalene	6.0		0.22	0.014	mg/Kg	40	✱		8270D SIM	Total/NA
Phenanthrene	3.5		0.22	0.049	mg/Kg	40	✱		8270D SIM	Total/NA
Pyrene	0.39		0.22	0.049	mg/Kg	40	✱		8270D SIM	Total/NA
1-Methylnaphthalene - DL	11		0.55	0.029	mg/Kg	100	✱		8270D SIM	Total/NA
GRO (C6-C10)	2700		130	36	mg/Kg	100	✱		8015C	Total/NA
DRO (C10-C28)	10000		88	15	mg/Kg	20	✱		8015C	Total/NA
Na	110		1.0	1.0	mg/Kg	1			20B	Soluble
Ca	96		0.20	0.20	mg/Kg	1			20B	Soluble
Mg	29		0.20	0.20	mg/Kg	1			20B	Soluble
Sodium Adsorption Ratio	0.80		0.12	0.12	No Unit	1			20B	Soluble
Barium	240	B	0.82	0.086	mg/Kg	1	✱		6010C	Total/NA
Cadmium	0.51		0.41	0.034	mg/Kg	1	✱		6010C	Total/NA
Chromium	18		1.2	0.048	mg/Kg	1	✱		6010C	Total/NA
Lead	18		0.74	0.26	mg/Kg	1	✱		6010C	Total/NA
Boron	15		8.2	0.81	mg/Kg	1	✱		6010C	Total/NA
Selenium	1.7		1.2	0.71	mg/Kg	1	✱		6010C	Total/NA
Copper	17	B	1.6	0.18	mg/Kg	1	✱		6010C	Total/NA
Nickel	18	B	3.3	0.11	mg/Kg	1	✱		6010C	Total/NA
Zinc	80		2.5	0.33	mg/Kg	1	✱		6010C	Total/NA
Sodium	840		410	49	mg/Kg	1	✱		6010C	Total/NA
Calcium	28000	B	41	12	mg/Kg	1	✱		6010C	Total/NA
Magnesium	12000	B	16	3.1	mg/Kg	1	✱		6010C	Total/NA
Arsenic	7.8		0.58	0.049	mg/Kg	1	✱		6020A	Total/NA
Mercury	0.018	J	0.020	0.0066	mg/Kg	1	✱		7471A	Total/NA
Chromium, hex	7.3	J	7.7	3.1	mg/Kg	1	✱		7196A	Total/NA
Chromium, trivalent	11		5.6	2.2	mg/Kg	1	✱		7196A	Total/NA
pH adj. to 25 deg C	7.9	HF	0.1	0.1	SU	1			9045D	Soluble
Temperature	20.8	HF	1.0	1.0	Degrees C	1			9045D	Soluble
Electrical Conductivity	7.7		0.010	0.010	mmhos/cm	1			9050A	Soluble

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL DEN
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL DEN
8015C	Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	SW846	TAL DEN
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	TAL DEN
20B	Sodium Adsorption Ratio	USDA	TAL DEN
6010C	Metals (ICP)	SW846	TAL DEN
6020A	Metals (ICP/MS)	SW846	TAL DEN
7471A	Mercury (CVAA)	SW846	TAL DEN
7196A	Chromium, Hexavalent	SW846	TAL NSH
7196A	Chromium, Trivalent (Colorimetric)	SW846	TAL NSH
9045D	pH	SW846	TAL DEN
9050A	Specific Conductance	SW846	TAL NSH
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.

USDA = "USDA Agriculture Handbook 60, section 20B".

Laboratory References:

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

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-94601-1	RC4-SOURCE-TRUCK	Solid	03/06/17 15:00	03/09/17 07:35

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

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

Client Sample ID: RC4-SOURCE-TRUCK

Date Collected: 03/06/17 15:00

Date Received: 03/09/17 07:35

Lab Sample ID: 280-94601-1

Matrix: Solid

Percent Solids: 89.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.3	J	2.8	0.51	mg/Kg	☼	03/10/17 12:51	03/13/17 11:42	10
Ethylbenzene	7.9	F1	2.8	0.38	mg/Kg	☼	03/10/17 12:51	03/13/17 11:42	10
Toluene	11		2.8	0.44	mg/Kg	☼	03/10/17 12:51	03/13/17 11:42	10
m-Xylene & p-Xylene	38		2.8	0.88	mg/Kg	☼	03/10/17 12:51	03/13/17 11:42	10
o-Xylene	15		1.4	0.39	mg/Kg	☼	03/10/17 12:51	03/13/17 11:42	10
Xylenes, Total	53		2.8	0.39	mg/Kg	☼	03/10/17 12:51	03/13/17 11:42	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		52 - 135	03/10/17 12:51	03/13/17 11:42	10
Toluene-d8 (Surr)	174	X	65 - 135	03/10/17 12:51	03/13/17 11:42	10
4-Bromofluorobenzene (Surr)	166	X	65 - 135	03/10/17 12:51	03/13/17 11:42	10
Dibromofluoromethane (Surr)	103		65 - 135	03/10/17 12:51	03/13/17 11:42	10

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Client Sample ID: RC4-SOURCE-TRUCK

Date Collected: 03/06/17 15:00

Date Received: 03/09/17 07:35

Lab Sample ID: 280-94601-1

Matrix: Solid

Percent Solids: 89.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	12		0.22	0.014	mg/Kg	☼	03/09/17 13:12	03/13/17 19:22	40
Acenaphthene	ND	F1	0.22	0.0071	mg/Kg	☼	03/09/17 13:12	03/13/17 19:22	40
Acenaphthylene	ND	F1	0.22	0.0075	mg/Kg	☼	03/09/17 13:12	03/13/17 19:22	40
Benzo[a]anthracene	ND		0.22	0.040	mg/Kg	☼	03/09/17 13:12	03/13/17 19:22	40
Benzo[a]pyrene	ND	F1 F2	0.22	0.033	mg/Kg	☼	03/09/17 13:12	03/13/17 19:22	40
Benzo[b]fluoranthene	0.063	J F1 F2	0.22	0.053	mg/Kg	☼	03/09/17 13:12	03/13/17 19:22	40
Benzo[g,h,i]perylene	ND	F2	0.22	0.049	mg/Kg	☼	03/09/17 13:12	03/13/17 19:22	40
Benzo[k]fluoranthene	ND		0.22	0.044	mg/Kg	☼	03/09/17 13:12	03/13/17 19:22	40
Chrysene	0.81		0.22	0.044	mg/Kg	☼	03/09/17 13:12	03/13/17 19:22	40
Dibenz(a,h)anthracene	ND		0.22	0.057	mg/Kg	☼	03/09/17 13:12	03/13/17 19:22	40
Fluoranthene	ND		0.22	0.044	mg/Kg	☼	03/09/17 13:12	03/13/17 19:22	40
Fluorene	1.3		0.22	0.021	mg/Kg	☼	03/09/17 13:12	03/13/17 19:22	40
Indeno[1,2,3-cd]pyrene	ND		0.22	0.049	mg/Kg	☼	03/09/17 13:12	03/13/17 19:22	40
Naphthalene	6.0		0.22	0.014	mg/Kg	☼	03/09/17 13:12	03/13/17 19:22	40
Phenanthrene	3.5		0.22	0.049	mg/Kg	☼	03/09/17 13:12	03/13/17 19:22	40
Pyrene	0.39		0.22	0.049	mg/Kg	☼	03/09/17 13:12	03/13/17 19:22	40
Anthracene	ND	F1	0.22	0.032	mg/Kg	☼	03/09/17 13:12	03/13/17 19:22	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	215	X D	39 - 120	03/09/17 13:12	03/13/17 19:22	40
Nitrobenzene-d5	16327	X D	42 - 120	03/09/17 13:12	03/13/17 19:22	40
Terphenyl-d14	262	X D	35 - 124	03/09/17 13:12	03/13/17 19:22	40

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) - DL

Client Sample ID: RC4-SOURCE-TRUCK

Date Collected: 03/06/17 15:00

Date Received: 03/09/17 07:35

Lab Sample ID: 280-94601-1

Matrix: Solid

Percent Solids: 89.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	11		0.55	0.029	mg/Kg	☼	03/09/17 13:12	03/13/17 20:39	100

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) - DL (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	252	D X	39 - 120	03/09/17 13:12	03/13/17 20:39	100
Nitrobenzene-d5	18330	D X	42 - 120	03/09/17 13:12	03/13/17 20:39	100
Terphenyl-d14	223	D X	35 - 124	03/09/17 13:12	03/13/17 20:39	100

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-SOURCE-TRUCK							Lab Sample ID: 280-94601-1		
Date Collected: 03/06/17 15:00							Matrix: Solid		
Date Received: 03/09/17 07:35							Percent Solids: 89.4		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	2700		130	36	mg/Kg	☼	03/09/17 16:28	03/11/17 13:18	100
Surrogate	%Recovery	Qualifier	Limits						
a,a,a-Trifluorotoluene	4123	X D	77 - 123						
				Prepared	Analyzed	Dil Fac			
				03/09/17 16:28	03/11/17 13:18	100			

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-SOURCE-TRUCK							Lab Sample ID: 280-94601-1		
Date Collected: 03/06/17 15:00							Matrix: Solid		
Date Received: 03/09/17 07:35							Percent Solids: 89.4		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	10000		88	15	mg/Kg	☼	03/09/17 13:35	03/13/17 20:01	20
Surrogate	%Recovery	Qualifier	Limits						
o-Terphenyl (Surr)	846	X D	49 - 115						
				Prepared	Analyzed	Dil Fac			
				03/09/17 13:35	03/13/17 20:01	20			

Method: 20B - Sodium Adsorption Ratio - Soluble

Client Sample ID: RC4-SOURCE-TRUCK							Lab Sample ID: 280-94601-1		
Date Collected: 03/06/17 15:00							Matrix: Solid		
Date Received: 03/09/17 07:35							Percent Solids: 89.4		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	110		1.0	1.0	mg/Kg		03/09/17 11:56	03/14/17 00:04	1
Ca	96		0.20	0.20	mg/Kg		03/09/17 11:56	03/14/17 00:04	1
Mg	29		0.20	0.20	mg/Kg		03/09/17 11:56	03/14/17 00:04	1
Sodium Adsorption Ratio	0.80		0.12	0.12	No Unit		03/09/17 11:56	03/14/17 00:04	1

Method: 6010C - Metals (ICP)

Client Sample ID: RC4-SOURCE-TRUCK							Lab Sample ID: 280-94601-1		
Date Collected: 03/06/17 15:00							Matrix: Solid		
Date Received: 03/09/17 07:35							Percent Solids: 89.4		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	240	B	0.82	0.086	mg/Kg	☼	03/09/17 14:20	03/10/17 18:19	1
Cadmium	0.51		0.41	0.034	mg/Kg	☼	03/09/17 14:20	03/10/17 05:19	1
Chromium	18		1.2	0.048	mg/Kg	☼	03/09/17 14:20	03/10/17 05:19	1
Lead	18		0.74	0.26	mg/Kg	☼	03/09/17 14:20	03/10/17 18:19	1
Boron	15		8.2	0.81	mg/Kg	☼	03/09/17 14:20	03/10/17 05:19	1
Selenium	1.7		1.2	0.71	mg/Kg	☼	03/09/17 14:20	03/10/17 05:19	1
Silver	ND		0.82	0.13	mg/Kg	☼	03/09/17 14:20	03/10/17 05:19	1
Copper	17	B	1.6	0.18	mg/Kg	☼	03/09/17 14:20	03/10/17 05:19	1
Nickel	18	B	3.3	0.11	mg/Kg	☼	03/09/17 14:20	03/10/17 05:19	1
Zinc	80		2.5	0.33	mg/Kg	☼	03/09/17 14:20	03/10/17 05:19	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

Method: 6010C - Metals (ICP) (Continued)

Client Sample ID: RC4-SOURCE-TRUCK

Date Collected: 03/06/17 15:00

Date Received: 03/09/17 07:35

Lab Sample ID: 280-94601-1

Matrix: Solid

Percent Solids: 89.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	840		410	49	mg/Kg	☼	03/09/17 14:20	03/10/17 18:19	1
Calcium	28000	B	41	12	mg/Kg	☼	03/09/17 14:20	03/10/17 18:19	1
Magnesium	12000	B	16	3.1	mg/Kg	☼	03/09/17 14:20	03/10/17 05:19	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: RC4-SOURCE-TRUCK

Date Collected: 03/06/17 15:00

Date Received: 03/09/17 07:35

Lab Sample ID: 280-94601-1

Matrix: Solid

Percent Solids: 89.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.8		0.58	0.049	mg/Kg	☼	03/10/17 14:20	03/14/17 11:42	1

Method: 7471A - Mercury (CVAA)

Client Sample ID: RC4-SOURCE-TRUCK

Date Collected: 03/06/17 15:00

Date Received: 03/09/17 07:35

Lab Sample ID: 280-94601-1

Matrix: Solid

Percent Solids: 89.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018	J	0.020	0.0066	mg/Kg	☼	03/10/17 11:59	03/10/17 19:49	1

General Chemistry

Client Sample ID: RC4-SOURCE-TRUCK

Date Collected: 03/06/17 15:00

Date Received: 03/09/17 07:35

Lab Sample ID: 280-94601-1

Matrix: Solid

Percent Solids: 89.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	7.3	J	7.7	3.1	mg/Kg	☼	03/11/17 09:10	03/11/17 14:49	1
Chromium, trivalent	11		5.6	2.2	mg/Kg	☼		03/11/17 14:49	1
Percent Moisture	10.6		0.1	0.1	%			03/09/17 12:39	1
Percent Solids	89.4		0.1	0.1	%			03/09/17 12:39	1

General Chemistry - Soluble

Client Sample ID: RC4-SOURCE-TRUCK

Date Collected: 03/06/17 15:00

Date Received: 03/09/17 07:35

Lab Sample ID: 280-94601-1

Matrix: Solid

Percent Solids: 89.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.9	HF	0.1	0.1	SU			03/10/17 09:50	1
Temperature	20.8	HF	1.0	1.0	Degrees C			03/10/17 09:50	1
Electrical Conductivity	7.7		0.010	0.010	mmhos/cm		03/13/17 13:35	03/13/17 14:00	1

TestAmerica Denver

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

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 (52-135)	TOL (65-135)	BFB (65-135)	DBFM (65-135)
280-94601-1	RC4-SOURCE-TRUCK	119	174 X	166 X	103
280-94601-1 MS	RC4-SOURCE-TRUCK	122	170 X	154 X	110
280-94601-1 MSD	RC4-SOURCE-TRUCK	109	172 X	139 X	104
Surrogate Legend					
12DCE = 1,2-Dichloroethane-d4 (Surr)					
TOL = Toluene-d8 (Surr)					
BFB = 4-Bromofluorobenzene (Surr)					
DBFM = Dibromofluoromethane (Surr)					

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (39-120)	NBZ (42-120)	TPH (35-124)
280-94601-1	RC4-SOURCE-TRUCK	215 X D	16327 X D	262 X D
280-94601-1 - DL	RC4-SOURCE-TRUCK	252 D X	18330 D X	223 D X
280-94601-1 MS	RC4-SOURCE-TRUCK	193 X D	17163 X D	273 X D
280-94601-1 MSD	RC4-SOURCE-TRUCK	208 X D	17685 X D	253 X D
LCS 280-364954/2-A	Lab Control Sample	80	93	81
MB 280-364954/1-A	Method Blank	84	89	80
Surrogate Legend				
FBP = 2-Fluorobiphenyl				
NBZ = Nitrobenzene-d5				
TPH = Terphenyl-d14				

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TFT1 (77-123)	
280-94601-1	RC4-SOURCE-TRUCK	4123 X D	
280-94601-1 MS	RC4-SOURCE-TRUCK	3111 X D	
280-94601-1 MSD	RC4-SOURCE-TRUCK	3033 X D	
LCS 280-364984/2-A	Lab Control Sample	93	
LCS 280-364984/3-A	Lab Control Sample Dup	90	
MB 280-364984/1-A	Method Blank	92	
Surrogate Legend			
TFT = a,a,a-Trifluorotoluene			

TestAmerica Denver

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTPH1 (49-115)
280-94601-1	RC4-SOURCE-TRUCK	846 X D
280-94601-1 MS	RC4-SOURCE-TRUCK	350 X D
280-94601-1 MSD	RC4-SOURCE-TRUCK	344 X D
LCS 280-364957/2-B	Lab Control Sample	83
MB 280-364957/1-B	Method Blank	79

Surrogate Legend

OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

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

Lab Sample ID: 280-94601-1 MS

Matrix: Solid

Analysis Batch: 365190

Client Sample ID: RC4-SOURCE-TRUCK

Prep Type: Total/NA

Prep Batch: 365096

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Benzene	1.3	J	2.23	3.06		mg/Kg	☼	80	65 - 135
Ethylbenzene	7.9	F1	2.23	8.50	F1	mg/Kg	☼	29	65 - 135
Toluene	11		2.23	11.3	4	mg/Kg	☼	14	65 - 135
m-Xylene & p-Xylene	38		2.23	34.0	4	mg/Kg	☼	-180	65 - 135
o-Xylene	15		2.23	15.1	4	mg/Kg	☼	-1	65 - 135
Xylenes, Total	53		4.46	49.1	4	mg/Kg	☼	-88	65 - 135

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	122		92 - 159
Toluene-d: (Surr)	130	/	T9 - 159
4-BroX ofluoroBennene (Surr)	194	/	T9 - 159
DiBroX ofluoroX ethane (Surr)	110		T9 - 159

Lab Sample ID: 280-94601-1 MSD

Matrix: Solid

Analysis Batch: 365190

Client Sample ID: RC4-SOURCE-TRUCK

Prep Type: Total/NA

Prep Batch: 365096

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	1.3	J	2.25	3.03		mg/Kg	☼	78	65 - 135	1	20
Ethylbenzene	7.9	F1	2.25	9.11	F1	mg/Kg	☼	55	65 - 135	7	20
Toluene	11		2.25	11.1	4	mg/Kg	☼	4	65 - 135	2	20
m-Xylene & p-Xylene	38		2.25	35.9	4	mg/Kg	☼	-93	65 - 135	6	23
o-Xylene	15		2.25	15.8	4	mg/Kg	☼	32	65 - 135	5	20
Xylenes, Total	53		4.49	51.7	4	mg/Kg	☼	-29	65 - 135	5	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	10f		92 - 159
Toluene-d: (Surr)	132	/	T9 - 159
4-BroX ofluoroBennene (Surr)	15f	/	T9 - 159
DiBroX ofluoroX ethane (Surr)	104		T9 - 159

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 280-364954/1-A

Matrix: Solid

Analysis Batch: 365210

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 364954

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		0.0050	0.00031	mg/Kg		03/09/17 13:12	03/13/17 14:39	1
Acenaphthene	ND		0.0050	0.00016	mg/Kg		03/09/17 13:12	03/13/17 14:39	1
Acenaphthylene	ND		0.0050	0.00017	mg/Kg		03/09/17 13:12	03/13/17 14:39	1
Benzo[a]anthracene	ND		0.0050	0.00090	mg/Kg		03/09/17 13:12	03/13/17 14:39	1
Benzo[a]pyrene	ND		0.0050	0.00074	mg/Kg		03/09/17 13:12	03/13/17 14:39	1
Benzo[b]fluoranthene	ND		0.0050	0.0012	mg/Kg		03/09/17 13:12	03/13/17 14:39	1
Benzo[g,h,i]perylene	ND		0.0050	0.0011	mg/Kg		03/09/17 13:12	03/13/17 14:39	1
Benzo[k]fluoranthene	ND		0.0050	0.0010	mg/Kg		03/09/17 13:12	03/13/17 14:39	1
Chrysene	ND		0.0050	0.0010	mg/Kg		03/09/17 13:12	03/13/17 14:39	1

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 280-364954/1-A

Matrix: Solid

Analysis Batch: 365210

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 364954

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		0.0050	0.0013	mg/Kg		03/09/17 13:12	03/13/17 14:39	1
Fluoranthene	ND		0.0050	0.0010	mg/Kg		03/09/17 13:12	03/13/17 14:39	1
Fluorene	ND		0.0050	0.00047	mg/Kg		03/09/17 13:12	03/13/17 14:39	1
Indeno[1,2,3-cd]pyrene	ND		0.0050	0.0011	mg/Kg		03/09/17 13:12	03/13/17 14:39	1
Naphthalene	ND		0.0050	0.00033	mg/Kg		03/09/17 13:12	03/13/17 14:39	1
Phenanthrene	ND		0.0050	0.0011	mg/Kg		03/09/17 13:12	03/13/17 14:39	1
Pyrene	ND		0.0050	0.0011	mg/Kg		03/09/17 13:12	03/13/17 14:39	1
Anthracene	0.000855	J	0.0050	0.00072	mg/Kg		03/09/17 13:12	03/13/17 14:39	1
1-Methylnaphthalene	ND		0.0050	0.00026	mg/Kg		03/09/17 13:12	03/13/17 14:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-bluoroBizenFI	: 4		5f - 120	05p0f p13 15y12	05p15p13 14y5f	1
NitroBenene-d9	: f		42 - 120	05p0f p13 15y12	05p15p13 14y5f	1
TerzhenFI-d14	: 0		59 - 124	05p0f p13 15y12	05p15p13 14y5f	1

Lab Sample ID: LCS 280-364954/2-A

Matrix: Solid

Analysis Batch: 365210

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 364954

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	0.0300	0.0290		mg/Kg		97	35 - 120
Acenaphthylene	0.0300	0.0276		mg/Kg		92	41 - 120
Benzo[a]anthracene	0.0300	0.0317		mg/Kg		106	36 - 120
Benzo[a]pyrene	0.0300	0.0298		mg/Kg		99	20 - 120
Benzo[b]fluoranthene	0.0300	0.0315		mg/Kg		105	37 - 120
Benzo[g,h,i]perylene	0.0300	0.0298		mg/Kg		99	20 - 123
Benzo[k]fluoranthene	0.0300	0.0297		mg/Kg		99	46 - 120
Chrysene	0.0300	0.0337		mg/Kg		112	34 - 120
Dibenz(a,h)anthracene	0.0300	0.0285		mg/Kg		95	20 - 120
Fluoranthene	0.0300	0.0309		mg/Kg		103	45 - 120
Fluorene	0.0300	0.0299		mg/Kg		100	44 - 120
Indeno[1,2,3-cd]pyrene	0.0300	0.0291		mg/Kg		97	20 - 127
Naphthalene	0.0300	0.0325		mg/Kg		108	44 - 120
Phenanthrene	0.0300	0.0302		mg/Kg		101	44 - 120
Pyrene	0.0300	0.0291		mg/Kg		97	43 - 120
Anthracene	0.0300	0.0293		mg/Kg		98	43 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-bluoroBizenFI	: 0		5f - 120
NitroBenene-d9	: f 5		42 - 120
TerzhenFI-d14	: 1		59 - 124

Lab Sample ID: 280-94601-1 MS

Matrix: Solid

Analysis Batch: 365210

Client Sample ID: RC4-SOURCE-TRUCK

Prep Type: Total/NA

Prep Batch: 364954

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	ND	F1	0.0333	1.05	F1	mg/Kg	☼	3155	35 - 120

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 280-94601-1 MS

Matrix: Solid

Analysis Batch: 365210

Client Sample ID: RC4-SOURCE-TRUCK

Prep Type: Total/NA

Prep Batch: 364954

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Acenaphthylene	ND	F1	0.0333	0.424	F1	mg/Kg	✱	1271	41 - 120
Benzo[a]anthracene	ND		0.0333	0.204	J	mg/Kg	✱	NC	36 - 120
Benzo[a]pyrene	ND	F1 F2	0.0333	0.126	J F1	mg/Kg	✱	377	20 - 120
Benzo[b]fluoranthene	0.063	J F1 F2	0.0333	0.174	J F1	mg/Kg	✱	332	37 - 120
Benzo[g,h,i]perylene	ND	F2	0.0333	0.0865	J	mg/Kg	✱	NC	20 - 123
Benzo[k]fluoranthene	ND		0.0333	0.0592	J	mg/Kg	✱	NC	46 - 120
Chrysene	0.81		0.0333	1.00	4	mg/Kg	✱	574	34 - 120
Dibenz(a,h)anthracene	ND		0.0333	0.0650	J	mg/Kg	✱	NC	20 - 120
Fluoranthene	ND		0.0333	0.248		mg/Kg	✱	NC	45 - 120
Fluorene	1.3		0.0333	1.35	4	mg/Kg	✱	255	44 - 120
Indeno[1,2,3-cd]pyrene	ND		0.0333	0.107	J	mg/Kg	✱	NC	20 - 127
Naphthalene	6.0		0.0333	6.37	4	mg/Kg	✱	1115	44 - 120
Phenanthrene	3.5		0.0333	3.99	4	mg/Kg	✱	1460	44 - 120
Pyrene	0.39		0.0333	0.476	4	mg/Kg	✱	257	43 - 120
Anthracene	ND	F1	0.0333	1.01	F1	mg/Kg	✱	3033	43 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
2-fluorobiphenyl	1f 5	/ D	5f - 120
Nitrobenzene-d9	131T 5	/ D	42 - 120
Terphenyl-d14	235	/ D	59 - 124

Lab Sample ID: 280-94601-1 MSD

Matrix: Solid

Analysis Batch: 365210

Client Sample ID: RC4-SOURCE-TRUCK

Prep Type: Total/NA

Prep Batch: 364954

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	ND	F1	0.0333	1.10	F1	mg/Kg	✱	3294	35 - 120	4	50
Acenaphthylene	ND	F1	0.0333	0.440	F1	mg/Kg	✱	1320	41 - 120	4	50
Benzo[a]anthracene	ND		0.0333	0.169	J	mg/Kg	✱	NC	36 - 120	19	40
Benzo[a]pyrene	ND	F1 F2	0.0333	0.0802	J F1 F2	mg/Kg	✱	240	20 - 120	44	30
Benzo[b]fluoranthene	0.063	J F1 F2	0.0333	0.114	J F1 F2	mg/Kg	✱	153	37 - 120	41	28
Benzo[g,h,i]perylene	ND	F2	0.0333	0.0594	J F2	mg/Kg	✱	NC	20 - 123	37	30
Benzo[k]fluoranthene	ND		0.0333	ND		mg/Kg	✱	NC	46 - 120	NC	28
Chrysene	0.81		0.0333	1.08	4	mg/Kg	✱	818	34 - 120	8	41
Dibenz(a,h)anthracene	ND		0.0333	ND		mg/Kg	✱	NC	20 - 120	NC	25
Fluoranthene	ND		0.0333	0.242		mg/Kg	✱	NC	45 - 120	2	30
Fluorene	1.3		0.0333	1.41	4	mg/Kg	✱	432	44 - 120	4	50
Indeno[1,2,3-cd]pyrene	ND		0.0333	0.0778	J	mg/Kg	✱	NC	20 - 127	32	50
Naphthalene	6.0		0.0333	6.53	4	mg/Kg	✱	1576	44 - 120	2	50
Phenanthrene	3.5		0.0333	4.26	4	mg/Kg	✱	2248	44 - 120	6	42
Pyrene	0.39		0.0333	0.470	4	mg/Kg	✱	241	43 - 120	1	30
Anthracene	ND	F1	0.0333	1.08	F1	mg/Kg	✱	3237	43 - 120	6	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-fluorobiphenyl	20:	/ D	5f - 120
Nitrobenzene-d9	13T: 9	/ D	42 - 120
Terphenyl-d14	295	/ D	59 - 124

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Lab Sample ID: MB 280-364984/1-A

Matrix: Solid

Analysis Batch: 365146

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 364984

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.2	0.33	mg/Kg		03/09/17 16:28	03/11/17 12:04	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-7riθuorotoluene	f 2		33 - 125				05p0f p13 1Ty2:	05p1 p13 12y04	1

Lab Sample ID: LCS 280-364984/2-A

Matrix: Solid

Analysis Batch: 365146

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 364984

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
GRO (C6-C10)	5.51	5.88		mg/Kg		107	85 - 153		
Surrogate	%Recovery	LCS Qualifier	Limits						
a,a,a-7riθuorotoluene	f 5		33 - 125						

Lab Sample ID: LCSD 280-364984/3-A

Matrix: Solid

Analysis Batch: 365146

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 364984

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
GRO (C6-C10)	5.46	5.67		mg/Kg		104	85 - 153	4	30
Surrogate	%Recovery	LCSD Qualifier	Limits						
a,a,a-7riθuorotoluene	f 0		33 - 125						

Lab Sample ID: 280-94601-1 MS

Matrix: Solid

Analysis Batch: 365146

Client Sample ID: RC4-SOURCE-TRUCK

Prep Type: Total/NA

Prep Batch: 364984

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits		
GRO (C6-C10)	2700		6.12	2200	4	mg/Kg	✱	-7764	85 - 153		
Surrogate	%Recovery	MS Qualifier	Limits								
a,a,a-7riθuorotoluene	5111	/ D	33 - 125								

Lab Sample ID: 280-94601-1 MSD

Matrix: Solid

Analysis Batch: 365146

Client Sample ID: RC4-SOURCE-TRUCK

Prep Type: Total/NA

Prep Batch: 364984

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
GRO (C6-C10)	2700		6.20	2180	4	mg/Kg	✱	-8106	85 - 153	1	30
Surrogate	%Recovery	MSD Qualifier	Limits								
a,a,a-7riθuorotoluene	5055	/ D	33 - 125								

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 280-364957/1-B

Matrix: Solid

Analysis Batch: 365293

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 364957

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		4.0	0.68	mg/Kg		03/09/17 13:35	03/13/17 19:04	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-terphenyl (Surr)	3f		4f - 119				05/01/17 15:59	05/01/17 13:11	1

Lab Sample ID: LCS 280-364957/2-B

Matrix: Solid

Analysis Batch: 365293

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 364957

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
DRO (C10-C28)	66.7	65.6		mg/Kg		98	53 - 115
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
o-terphenyl (Surr)	5		4f - 119				

Lab Sample ID: 280-94601-1 MS

Matrix: Solid

Analysis Batch: 365293

Client Sample ID: RC4-SOURCE-TRUCK

Prep Type: Total/NA

Prep Batch: 364957

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
DRO (C10-C28)	10000		74.4	12700	4 D	mg/Kg	✖	3605	56 - 115
Surrogate	MS %Recovery	MS Qualifier	Limits						
o-terphenyl (Surr)	590	/ D	4f - 119						

Lab Sample ID: 280-94601-1 MSD

Matrix: Solid

Analysis Batch: 365293

Client Sample ID: RC4-SOURCE-TRUCK

Prep Type: Total/NA

Prep Batch: 364957

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
DRO (C10-C28)	10000		74.4	10600	4 D	mg/Kg	✖	894	56 - 115	17	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
o-terphenyl (Surr)	544	/ D	4f - 119								

Method: 20B - Sodium Adsorption Ratio

Lab Sample ID: MB 280-364941/1-A

Matrix: Solid

Analysis Batch: 365323

Client Sample ID: Method Blank

Prep Type: Soluble

Prep Batch: 364941

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	ND		1.0	1.0	mg/Kg		03/09/17 11:56	03/14/17 00:04	1
Ca	ND		0.20	0.20	mg/Kg		03/09/17 11:56	03/14/17 00:04	1
Mg	ND		0.20	0.20	mg/Kg		03/09/17 11:56	03/14/17 00:04	1
Sodium Adsorption Ratio	ND		0.12	0.12	No Unit		03/09/17 11:56	03/14/17 00:04	1

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

Method: 20B - Sodium Adsorption Ratio (Continued)

Lab Sample ID: 280-94601-1 DU

Matrix: Solid

Analysis Batch: 365323

Client Sample ID: RC4-SOURCE-TRUCK

Prep Type: Soluble

Prep Batch: 364941

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Na	110		92.5		mg/Kg		18	20
Ca	96		84.5		mg/Kg		13	20
Mg	29		25.2		mg/Kg		13	20
Sodium Adsorption Ratio	0.80		0.718		No Unit		11	20

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 280-364932/1-A

Matrix: Solid

Analysis Batch: 365017

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 364932

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.50	0.041	mg/Kg		03/09/17 14:20	03/10/17 05:14	1
Chromium	ND		1.5	0.058	mg/Kg		03/09/17 14:20	03/10/17 05:14	1
Boron	ND		10	0.98	mg/Kg		03/09/17 14:20	03/10/17 05:14	1
Selenium	ND		1.5	0.86	mg/Kg		03/09/17 14:20	03/10/17 05:14	1
Silver	ND		1.0	0.16	mg/Kg		03/09/17 14:20	03/10/17 05:14	1
Copper	0.340	J	2.0	0.22	mg/Kg		03/09/17 14:20	03/10/17 05:14	1
Nickel	0.251	J	4.0	0.13	mg/Kg		03/09/17 14:20	03/10/17 05:14	1
Zinc	ND		3.0	0.40	mg/Kg		03/09/17 14:20	03/10/17 05:14	1
Magnesium	9.85	J	20	3.7	mg/Kg		03/09/17 14:20	03/10/17 05:14	1

Lab Sample ID: MB 280-364932/1-A

Matrix: Solid

Analysis Batch: 365197

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 364932

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.103	J	1.0	0.10	mg/Kg		03/09/17 14:20	03/10/17 18:14	1
Lead	ND		0.90	0.31	mg/Kg		03/09/17 14:20	03/10/17 18:14	1
Sodium	ND		500	59	mg/Kg		03/09/17 14:20	03/10/17 18:14	1
Calcium	22.8	J	50	14	mg/Kg		03/09/17 14:20	03/10/17 18:14	1

Lab Sample ID: LCS 280-364932/2-A

Matrix: Solid

Analysis Batch: 365017

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 364932

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cadmium	10.0	9.98		mg/Kg		100	87 - 110
Chromium	20.0	19.3		mg/Kg		97	84 - 114
Boron	100	94.1		mg/Kg		94	80 - 120
Selenium	200	185		mg/Kg		93	83 - 110
Silver	5.00	5.53		mg/Kg		111	87 - 114
Copper	25.0	24.1		mg/Kg		97	88 - 110
Nickel	50.0	47.8		mg/Kg		96	87 - 110
Zinc	50.0	52.0		mg/Kg		104	76 - 114

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 280-364932/2-A
Matrix: Solid
Analysis Batch: 365197

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 364932
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Barium	200	194		mg/Kg		97	87 - 112
Lead	50.0	49.2		mg/Kg		98	86 - 110

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 280-365003/1-A
Matrix: Solid
Analysis Batch: 365182

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 365003

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.60	0.051	mg/Kg		03/10/17 14:20	03/11/17 01:58	1

Lab Sample ID: LCS 280-365003/2-A
Matrix: Solid
Analysis Batch: 365182

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 365003
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	20.0	17.9		mg/Kg		90	83 - 111

Lab Sample ID: 280-94601-1 MS
Matrix: Solid
Analysis Batch: 365182

Client Sample ID: RC4-SOURCE-TRUCK
Prep Type: Total/NA
Prep Batch: 365003
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	7.8		18.0	23.0		mg/Kg	☼	84	83 - 111

Lab Sample ID: 280-94601-1 MSD
Matrix: Solid
Analysis Batch: 365182

Client Sample ID: RC4-SOURCE-TRUCK
Prep Type: Total/NA
Prep Batch: 365003
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	7.8		17.9	21.9	F1	mg/Kg	☼	79	83 - 111	5	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 280-364974/1-A
Matrix: Solid
Analysis Batch: 365174

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 364974

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.017	0.0055	mg/Kg		03/10/17 11:59	03/10/17 19:42	1

Lab Sample ID: LCS 280-364974/2-A
Matrix: Solid
Analysis Batch: 365174

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 364974
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.417	0.419		mg/Kg		101	87 - 111

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCSD 280-364974/3-A
Matrix: Solid
Analysis Batch: 365174

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 364974
%Rec. RPD

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.417	0.464		mg/Kg		111	87 - 111	10	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 490-413784/1-A
Matrix: Solid
Analysis Batch: 413821

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 413784

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	ND		5.0	2.0	mg/Kg		03/11/17 09:10	03/11/17 14:49	1

Lab Sample ID: LCS 490-413784/3-A
Matrix: Solid
Analysis Batch: 413821

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 413784
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Chromium, hex	64.0	53.0		mg/Kg		83	80 - 120

Lab Sample ID: LCSS 490-413784/2-A
Matrix: Solid
Analysis Batch: 413821

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 413784
%Rec.

Analyte	Spike Added	LCSS Result	LCSS Qualifier	Unit	D	%Rec	Limits
Chromium, hex	39.9	32.8		mg/Kg		82	80 - 120

Method: 9045D - pH

Lab Sample ID: LCS 280-365031/15-A
Matrix: Solid
Analysis Batch: 365074

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH adj. to 25 deg C	7.00	7.0		SU		100	97 - 103

Method: 9050A - Specific Conductance

Lab Sample ID: 280-94601-1 DU
Matrix: Solid
Analysis Batch: 414149

Client Sample ID: RC4-SOURCE-TRUCK
Prep Type: Soluble
Prep Batch: 414105
RPD

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Electrical Conductivity	7.7		7.59		mmhos/cm		0.8	10

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

Method: Moisture - Percent Moisture

Lab Sample ID: 280-94601-1 DU

Matrix: Solid

Analysis Batch: 364951

Client Sample ID: RC4-SOURCE-TRUCK

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	10.6		10.4		%		3	20
Percent Solids	89.4		89.6		%		0.3	20

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

GC/MS VOA

Prep Batch: 365096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Total/NA	Solid	5030A	
280-94601-1 MS	RC4-SOURCE-TRUCK	Total/NA	Solid	5030A	
280-94601-1 MSD	RC4-SOURCE-TRUCK	Total/NA	Solid	5030A	

Analysis Batch: 365190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Total/NA	Solid	8260B	365096
280-94601-1 MS	RC4-SOURCE-TRUCK	Total/NA	Solid	8260B	365096
280-94601-1 MSD	RC4-SOURCE-TRUCK	Total/NA	Solid	8260B	365096

GC/MS Semi VOA

Prep Batch: 364954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1 - DL	RC4-SOURCE-TRUCK	Total/NA	Solid	3546	
280-94601-1	RC4-SOURCE-TRUCK	Total/NA	Solid	3546	
MB 280-364954/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-364954/2-A	Lab Control Sample	Total/NA	Solid	3546	
280-94601-1 MS	RC4-SOURCE-TRUCK	Total/NA	Solid	3546	
280-94601-1 MSD	RC4-SOURCE-TRUCK	Total/NA	Solid	3546	

Analysis Batch: 365210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Total/NA	Solid	8270D SIM	364954
280-94601-1 - DL	RC4-SOURCE-TRUCK	Total/NA	Solid	8270D SIM	364954
MB 280-364954/1-A	Method Blank	Total/NA	Solid	8270D SIM	364954
LCS 280-364954/2-A	Lab Control Sample	Total/NA	Solid	8270D SIM	364954
280-94601-1 MS	RC4-SOURCE-TRUCK	Total/NA	Solid	8270D SIM	364954
280-94601-1 MSD	RC4-SOURCE-TRUCK	Total/NA	Solid	8270D SIM	364954

GC VOA

Prep Batch: 364984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Total/NA	Solid	5030A	
MB 280-364984/1-A	Method Blank	Total/NA	Solid	5030A	
LCS 280-364984/2-A	Lab Control Sample	Total/NA	Solid	5030A	
LCSD 280-364984/3-A	Lab Control Sample Dup	Total/NA	Solid	5030A	
280-94601-1 MS	RC4-SOURCE-TRUCK	Total/NA	Solid	5030A	
280-94601-1 MSD	RC4-SOURCE-TRUCK	Total/NA	Solid	5030A	

Analysis Batch: 365146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Total/NA	Solid	8015C	364984
MB 280-364984/1-A	Method Blank	Total/NA	Solid	8015C	364984
LCS 280-364984/2-A	Lab Control Sample	Total/NA	Solid	8015C	364984
LCSD 280-364984/3-A	Lab Control Sample Dup	Total/NA	Solid	8015C	364984
280-94601-1 MS	RC4-SOURCE-TRUCK	Total/NA	Solid	8015C	364984
280-94601-1 MSD	RC4-SOURCE-TRUCK	Total/NA	Solid	8015C	364984

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

GC Semi VOA

Prep Batch: 364957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Total/NA	Solid	3546	
MB 280-364957/1-B	Method Blank	Total/NA	Solid	3546	
LCS 280-364957/2-B	Lab Control Sample	Total/NA	Solid	3546	
280-94601-1 MS	RC4-SOURCE-TRUCK	Total/NA	Solid	3546	
280-94601-1 MSD	RC4-SOURCE-TRUCK	Total/NA	Solid	3546	

Cleanup Batch: 365097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Total/NA	Solid	3630M	364957
MB 280-364957/1-B	Method Blank	Total/NA	Solid	3630M	364957
LCS 280-364957/2-B	Lab Control Sample	Total/NA	Solid	3630M	364957
280-94601-1 MS	RC4-SOURCE-TRUCK	Total/NA	Solid	3630M	364957
280-94601-1 MSD	RC4-SOURCE-TRUCK	Total/NA	Solid	3630M	364957

Analysis Batch: 365293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Total/NA	Solid	8015C	365097
MB 280-364957/1-B	Method Blank	Total/NA	Solid	8015C	365097
LCS 280-364957/2-B	Lab Control Sample	Total/NA	Solid	8015C	365097
280-94601-1 MS	RC4-SOURCE-TRUCK	Total/NA	Solid	8015C	365097
280-94601-1 MSD	RC4-SOURCE-TRUCK	Total/NA	Solid	8015C	365097

Metals

Prep Batch: 364932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Total/NA	Solid	3050B	
MB 280-364932/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 280-364932/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 364941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Soluble	Solid	20B	
MB 280-364941/1-A	Method Blank	Soluble	Solid	20B	
280-94601-1 DU	RC4-SOURCE-TRUCK	Soluble	Solid	20B	

Prep Batch: 364974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Total/NA	Solid	7471A	
MB 280-364974/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 280-364974/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 280-364974/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	

Prep Batch: 365003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Total/NA	Solid	3050B	
MB 280-365003/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 280-365003/2-A	Lab Control Sample	Total/NA	Solid	3050B	
280-94601-1 MS	RC4-SOURCE-TRUCK	Total/NA	Solid	3050B	
280-94601-1 MSD	RC4-SOURCE-TRUCK	Total/NA	Solid	3050B	

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

Metals (Continued)

Analysis Batch: 365017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Total/NA	Solid	6010C	364932
MB 280-364932/1-A	Method Blank	Total/NA	Solid	6010C	364932
LCS 280-364932/2-A	Lab Control Sample	Total/NA	Solid	6010C	364932

Analysis Batch: 365174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Total/NA	Solid	7471A	364974
MB 280-364974/1-A	Method Blank	Total/NA	Solid	7471A	364974
LCS 280-364974/2-A	Lab Control Sample	Total/NA	Solid	7471A	364974
LCSD 280-364974/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	364974

Analysis Batch: 365182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-365003/1-A	Method Blank	Total/NA	Solid	6020A	365003
LCS 280-365003/2-A	Lab Control Sample	Total/NA	Solid	6020A	365003
280-94601-1 MS	RC4-SOURCE-TRUCK	Total/NA	Solid	6020A	365003
280-94601-1 MSD	RC4-SOURCE-TRUCK	Total/NA	Solid	6020A	365003

Analysis Batch: 365197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Total/NA	Solid	6010C	364932
MB 280-364932/1-A	Method Blank	Total/NA	Solid	6010C	364932
LCS 280-364932/2-A	Lab Control Sample	Total/NA	Solid	6010C	364932

Analysis Batch: 365323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Soluble	Solid	20B	364941
MB 280-364941/1-A	Method Blank	Soluble	Solid	20B	364941
280-94601-1 DU	RC4-SOURCE-TRUCK	Soluble	Solid	20B	364941

Analysis Batch: 365440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Total/NA	Solid	6020A	365003

General Chemistry

Analysis Batch: 364951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Total/NA	Solid	Moisture	
280-94601-1 DU	RC4-SOURCE-TRUCK	Total/NA	Solid	Moisture	

Leach Batch: 365031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Soluble	Solid	DI Leach	
LCS 280-365031/15-A	Lab Control Sample	Soluble	Solid	DI Leach	

Analysis Batch: 365074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Soluble	Solid	9045D	365031
LCS 280-365031/15-A	Lab Control Sample	Soluble	Solid	9045D	365031

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

General Chemistry (Continued)

Prep Batch: 413784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Total/NA	Solid	3060A	
MB 490-413784/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 490-413784/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSS 490-413784/2-A	Lab Control Sample	Total/NA	Solid	3060A	

Analysis Batch: 413821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Total/NA	Solid	7196A	413784
MB 490-413784/1-A	Method Blank	Total/NA	Solid	7196A	413784
LCSI 490-413784/3-A	Lab Control Sample	Total/NA	Solid	7196A	413784
LCSS 490-413784/2-A	Lab Control Sample	Total/NA	Solid	7196A	413784

Prep Batch: 414105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Soluble	Solid	Sat Paste Ext	
280-94601-1 DU	RC4-SOURCE-TRUCK	Soluble	Solid	Sat Paste Ext	

Analysis Batch: 414149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Soluble	Solid	9050A	414105
LCS 490-414149/3	Lab Control Sample	Total/NA	Solid	9050A	
LCSD 490-414149/4	Lab Control Sample Dup	Total/NA	Solid	9050A	
280-94601-1 DU	RC4-SOURCE-TRUCK	Soluble	Solid	9050A	414105

Analysis Batch: 414232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Total/NA	Solid	7196A	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

Client Sample ID: RC4-SOURCE-TRUCK

Lab Sample ID: 280-94601-1

Date Collected: 03/06/17 15:00

Matrix: Solid

Date Received: 03/09/17 07:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	20B			1.0 g	50 mL	364941	03/09/17 11:56	TEB	TAL DEN
Soluble	Analysis	20B		1			365323	03/14/17 00:04	LLB	TAL DEN
Soluble	Leach	DI Leach			40.43 g	40 mL	365031	03/10/17 07:34	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	365074	03/10/17 09:50	IEU	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	414105	03/13/17 13:35	AJK	TAL NSH
Soluble	Analysis	9050A		1			414149	03/13/17 14:00	JAB	TAL NSH
Total/NA	Analysis	Moisture		1			364951	03/09/17 12:39	A1D	TAL DEN

Client Sample ID: RC4-SOURCE-TRUCK

Lab Sample ID: 280-94601-1

Date Collected: 03/06/17 15:00

Matrix: Solid

Date Received: 03/09/17 07:35

Percent Solids: 89.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			4.974 g	1000 mL	365096	03/10/17 12:51	CAS	TAL DEN
Total/NA	Analysis	8260B		10	20 mL	20 mL	365190	03/13/17 11:42	JLS	TAL DEN
Total/NA	Prep	3546			30.4 g	1 mL	364954	03/09/17 13:12	JRA	TAL DEN
Total/NA	Analysis	8270D SIM		40			365210	03/13/17 19:22	KGV	TAL DEN
Total/NA	Prep	3546	DL		30.4 g	1 mL	364954	03/09/17 13:12	JRA	TAL DEN
Total/NA	Analysis	8270D SIM	DL	100			365210	03/13/17 20:39	KGV	TAL DEN
Total/NA	Prep	5030A			10.2 g	10 mL	364984	03/09/17 16:28	KDK	TAL DEN
Total/NA	Analysis	8015C		100	0.1 mL	5 mL	365146	03/11/17 13:18	KDK	TAL DEN
Total/NA	Prep	3546			30.5 g	1 mL	364957	03/09/17 13:35	JRA	TAL DEN
Total/NA	Cleanup	3630M			1 mL	1 mL	365097	03/09/17 13:52	JRA	TAL DEN
Total/NA	Analysis	8015C		20			365293	03/13/17 20:01	KDK	TAL DEN
Total/NA	Prep	3050B			1.357 g	100 mL	364932	03/09/17 14:20	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365017	03/10/17 05:19	CRR	TAL DEN
Total/NA	Prep	3050B			1.357 g	100 mL	364932	03/09/17 14:20	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365197	03/10/17 18:19	SJS	TAL DEN
Total/NA	Prep	3050B			1.155 g	100 mL	365003	03/10/17 14:20	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			365440	03/14/17 11:42	LMT	TAL DEN
Total/NA	Prep	7471A			0.56 g	50 mL	364974	03/10/17 11:59	CDH	TAL DEN
Total/NA	Analysis	7471A		1			365174	03/10/17 19:49	TEB	TAL DEN
Total/NA	Prep	3060A			1.8272 g	500 mL	413784	03/11/17 09:10	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	413821	03/11/17 14:49	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	414232	03/11/17 14:49	BMC	TAL NSH

Laboratory References:

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

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TestAmerica Denver

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

Laboratory: TestAmerica Denver

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
A2LA	DoD ELAP		2907.01	10-31-17
A2LA	ISO/IEC 17025		2907.01	10-31-17
Alabama	State Program	4	40730	09-30-12 *
Alaska (UST)	State Program	10	UST-30	04-05-18
Arizona	State Program	9	AZ0713	12-20-17
Arkansas DEQ	State Program	6	88-0687	06-01-17
California	State Program	9	2513	01-08-18 *
Connecticut	State Program	1	PH-0686	09-30-18
Florida	NELAP	4	E87667	06-30-17
Georgia	State Program	4	N/A	01-08-18
Illinois	NELAP	5	200017	04-30-18
Iowa	State Program	7	370	12-01-18 *
Kansas	NELAP	7	E-10166	04-30-17 *
Louisiana	NELAP	6	02096	06-30-17
Maine	State Program	1	CO0002	03-03-19
Minnesota	NELAP	5	8-999-405	12-31-17 *
Nevada	State Program	9	CO0026	07-31-17
New Hampshire	NELAP	1	205310	04-28-17
New Jersey	NELAP	2	CO004	06-30-17
New York	NELAP	2	11964	04-01-18
North Carolina (WW/SW)	State Program	4	358	12-31-17
North Dakota	State Program	8	R-034	01-09-18
Oklahoma	State Program	6	8614	08-31-17
Oregon	NELAP	10	4025	01-08-18
Pennsylvania	NELAP	3	68-00664	07-31-17
South Carolina	State Program	4	72002001	01-09-17 *
Texas	NELAP	6	T104704183-16-12	09-30-17
USDA	Federal		P330-16-00397	12-15-19
Utah	NELAP	8	CO00026	07-31-17
Virginia	NELAP	3	460232	06-14-17
Washington	State Program	10	C583	08-02-17
West Virginia DEP	State Program	3	354	11-30-17
Wisconsin	State Program	5	999615430	08-31-17
Wyoming (UST)	A2LA	8	2907.01	10-31-17

Laboratory: TestAmerica Nashville

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
A2LA	A2LA		NA: NELAP & A2LA	12-31-17
A2LA	ISO/IEC 17025		0453.07	12-31-17
Alaska (UST)	State Program	10	UST-087	07-24-17
Arizona	State Program	9	AZ0473	05-05-17
Arkansas DEQ	State Program	6	88-0737	04-25-17
California	State Program	9	2938	10-31-18
Connecticut	State Program	1	PH-0220	12-31-17
Florida	NELAP	4	E87358	06-30-17
Georgia	State Program	4	N/A	12-31-17
Illinois	NELAP	5	200010	12-09-17
Iowa	State Program	7	131	04-01-18

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

TestAmerica Denver

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-1

Laboratory: TestAmerica Nashville (Continued)

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
Kansas	NELAP	7	E-10229	10-31-17
Kentucky (UST)	State Program	4	19	06-30-17
Kentucky (WW)	State Program	4	90038	12-31-17
Louisiana	NELAP	6	30613	06-30-17
Maine	State Program	1	TN00032	11-03-17
Maryland	State Program	3	316	03-31-18
Massachusetts	State Program	1	M-TN032	06-30-17
Minnesota	NELAP	5	047-999-345	12-31-17
Mississippi	State Program	4	N/A	06-30-17
Montana (UST)	State Program	8	NA	02-24-20
Nevada	State Program	9	TN00032	07-31-17
New Hampshire	NELAP	1	2963	10-09-17
New Jersey	NELAP	2	TN965	06-30-17
New York	NELAP	2	11342	03-31-17 *
North Carolina (WW/SW)	State Program	4	387	12-31-17
North Dakota	State Program	8	R-146	06-30-17
Ohio VAP	State Program	5	CL0033	07-10-17
Oklahoma	State Program	6	9412	08-31-17
Oregon	NELAP	10	TN200001	04-27-17
Pennsylvania	NELAP	3	68-00585	06-30-17
Rhode Island	State Program	1	LAO00268	12-30-17
South Carolina	State Program	4	84009 (001)	02-18-17 *
South Carolina (Do Not Use - DW)	State Program	4	84009 (002)	12-16-17
Tennessee	State Program	4	2008	02-23-20
Texas	NELAP	6	T104704077	08-31-17
USDA	Federal		P330-13-00306	12-01-19
Utah	NELAP	8	TN00032	07-31-17
Virginia	NELAP	3	460152	06-14-17
Washington	State Program	10	C789	07-19-17
West Virginia DEP	State Program	3	219	02-28-18
Wisconsin	State Program	5	998020430	08-31-17
Wyoming (UST)	A2LA	8	453.07	12-31-17

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

TestAmerica Denver

5608 COOLER RECEIPT FORM



280-94601 Chain of Custody

Cooler Received/Opened On 03-10-2017 @ 10:05

Time Samples Removed From Cooler 1952 Time Samples Placed In Storage 1536 (2 Hour Window)

1. Tracking # 1244 (last 4 digits, FedEx) Courier: FedEx
IR Gun ID 31470366 pH Strip Lot NA Chlorine Strip Lot NA

2. Temperature of rep. sample or temp blank when opened: 3.2 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 (front)

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) KD

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # 1

I certify that I unloaded the cooler and answered questions 7-14 (initial) AD

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) SR

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) SR

I certify that I attached a label with the unique LIMS number to each container (initial) SR

21. Were there Non-Conformance issues at login? YES...NO...NO Was a NCM generated? YES...NO...NO

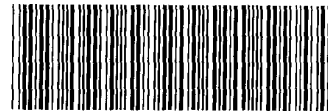
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

280-94601

THE LEADER IN ENVIRONMENTAL TESTING

4/5/2017

COOLER RECEIPT FORM



280-94601 Chain of Custody

Cooler Received/Opened On 3/14/2017 @ 0950

Time Samples Removed From Cooler 1800 Time Samples Placed In Storage 1848 (2 Hour Window)

1. Tracking # 2207 (last 4 digits, FedEx) Courier: FedEx
IR Gun ID_17960353_ pH Strip Lot NA Chlorine Strip Lot NA

2. Temperature of rep. sample or temp blank when opened: 3.0 Degrees Celsius

3. If Item #2 temperatures is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 Front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) ger

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #

I certify that I unloaded the cooler and answered questions 7-14 (initial) ger

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) ger

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) ger

I certify that I attached a label with the unique LIMS number to each container (initial) ger

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#

TestAmerica Denver

4956 Yarrow Street
 Arvada, CO 80002
 Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

280-94601

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)		Sampler:		Lab PM:	
Client Contact:		Phone:		Ide, Jamie N	
Shipping/Receiving:		E-Mail:		jamie.ide@testamerica.com	
Company:		Accreditations Required (See note):		State or Origin: Colorado	
TestAmerica Laboratories, Inc		Due Date Requested:		280-94601-1	
Address:		2960 Foster Creighton Drive,		Job #:	
City:		Nashville		TAT Requested (days):	
State, Zip:		TN, 37204		PO #:	
Phone:		615-726-0177(Tel) 615-726-3404(Fax)		WO #:	
Email:		Project #:		28016458	
Project Name:		Site:		SSOW#:	
Slantec CVX - Rangely, CO		Sample Identification - Client ID (Lab ID)		Sample Date	
RC4-SOURCE-TRUCK (280-94601-1)		Sample Time		15:00	
		Preservation Code		Solid	
		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)	
		7196A_CRS/Trivalent Chromium (Cr(III))		9/13/17	
		29B_EC/SatPaste_Prep Electrical Conductivity			
		7196A/3060A Hexavalent Chromium (Cr(VI))		9/13/17	
		Total Number of containers		1	
		Special Instructions/Note:		Add 1 volume for 29B analysis 9/13/17	
		280-94601-B-1 ON SUM			
		Preservation Codes:		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsHClO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Anchor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:	
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under Chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.		Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Unconfirmed		Return To Client		Disposal By Lab	
Deliverable Requested: I, II, III, IV, Other (specify)		Primary Deliverable Rank: 2		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Date:		Method of Shipment:	
Relinquished by:		Date/Time:		Received by:	
Relinquished by:		Date/Time:		Received by:	
Relinquished by:		Date/Time:		Received by:	
Custody Seals Intact:		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	
Δ Yes Δ No				30	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-94601-1

Login Number: 94601

List Source: TestAmerica Denver

List Number: 1

Creator: True, Joshua A

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 (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-94601-1

Login Number: 94601

List Number: 2

Creator: Vest, Laura E

List Source: TestAmerica Nashville

List Creation: 03/10/17 03:31 PM

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.	N/A	
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.	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").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver

4955 Yarrow Street

Arvada, CO 80002

Tel: (303)736-0100

TestAmerica Job ID: 280-94601-2

Client Project/Site: Stantec CVX - Rangely, CO

Revision: 1

For:

Stantec Consulting Corp.

2000 South Colorado Blvd

Suite 2-300

Denver, Colorado 80222

Attn: Ms. Bethany Lucente



Authorized for release by:

4/5/2017 4:10:24 PM

Jamie Ide, Project Manager I

(303)736-0126

jamie.ide@testamericainc.com

LINKS

Review your project
results through

TotalAccess

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www.testamericainc.com

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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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-2

Qualifiers

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
CFL	Contains Free Liquid
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)

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-2

Job ID: 280-94601-2

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Stantec Consulting Corp.
Project: Stantec CVX - Rangely, CO
Report Number: 280-94601-2

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.

REVISION - 4/5/17

Per client request 3/31/17, the ORO originally requested on the chain of custody was removed from the analytical report.

RECEIPT

The sample was received on 3/9/2017 7:35 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.6° C.

The chain of custody was not relinquished by the private courier to the laboratory. The laboratory will proceed with the requested analyses unless instructed otherwise. The client was notified on 3/9/2017.

The chain of custody requests DRO, ORO, and GRO analyses for sample RC4-SOURCE-TRUCK (280-94601-1) by Method 8015B as quoted by TestAmerica. However, the laboratory will perform these analyses by method 8015C as the more current method version is also compatible with the additionally requested silica gel clean-up pre-prep method. The client was notified on 3/9/2017.

The requested DRO/ORO analysis without Silica gel clean up will be found in this report; all other analyses requested on the chain of custody will be reported under a separate cover (280-94601-1).

DIESEL RANGE ORGANICS

o-Terphenyl failed the surrogate recovery criteria high for RC4-SOURCE-TRUCK (280-94601-1). 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. The surrogate recoveries are calculated from diluted samples and in some cases are diluted below reportable limits.

Sample RC4-SOURCE-TRUCK (280-94601-1)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-2

Client Sample ID: RC4-SOURCE-TRUCK

Lab Sample ID: 280-94601-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
DRO (C10-C28)	9200		89	15	mg/Kg	20	☼	8015C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-2

Method	Method Description	Protocol	Laboratory
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	TAL DEN

Protocol References:

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: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-94601-1	RC4-SOURCE-TRUCK	Solid	03/06/17 15:00	03/09/17 07:35

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-SOURCE-TRUCK

Date Collected: 03/06/17 15:00

Date Received: 03/09/17 07:35

Lab Sample ID: 280-94601-1

Matrix: Solid

Percent Solids: 89.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	9200		89	15	mg/Kg	☼	03/15/17 10:45	03/17/17 13:00	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	245	D X	49 - 115				03/15/17 10:45	03/17/17 13:00	20

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTPH1 (49-115)
280-94601-1	RC4-SOURCE-TRUCK	245 D X
LCS 280-365546/2-A	Lab Control Sample	77
MB 280-365546/1-A	Method Blank	75

Surrogate Legend

OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 280-365546/1-A

Matrix: Solid

Analysis Batch: 365789

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365546

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		4.0	0.68	mg/Kg	-	03/15/17 10:45	03/17/17 06:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	75		49 - 115	03/15/17 10:45	03/17/17 06:45	1

Lab Sample ID: LCS 280-365546/2-A

Matrix: Solid

Analysis Batch: 365789

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365546

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
DRO (C10-C28)	66.7	59.5		mg/Kg	-	89	53 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl (Surr)	77		49 - 115

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-2

GC Semi VOA

Prep Batch: 365546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Total/NA	Solid	3546	
MB 280-365546/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-365546/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 365789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94601-1	RC4-SOURCE-TRUCK	Total/NA	Solid	8015C	365546
MB 280-365546/1-A	Method Blank	Total/NA	Solid	8015C	365546
LCS 280-365546/2-A	Lab Control Sample	Total/NA	Solid	8015C	365546

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-2

Client Sample ID: RC4-SOURCE-TRUCK

Lab Sample ID: 280-94601-1

Date Collected: 03/06/17 15:00

Matrix: Solid

Date Received: 03/09/17 07:35

Percent Solidity: 89%

Prep Type	Batch Type	Batch Method	Rzn	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.1 g	1 mL	365546	03/15/17 10:45	JRA	TAL DEN
Total/NA	Analysis	8015C		20			365789	03/17/17 13:00	DAW	TAL DEN

Laboratory Reference:

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

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94601-2

Laboratory: TestAmerica Denver

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
A2LA	DoD ELAP		2907.01	10-31-17
A2LA	ISO/IEC 17025		2907.01	10-31-17
Alabama	State Program	4	40730	09-30-12 *
Alaska (UST)	State Program	10	UST-30	04-05-18
Arizona	State Program	9	AZ0713	12-20-17
Arkansas DEQ	State Program	6	88-0687	06-01-17
California	State Program	9	2513	01-08-18 *
Connecticut	State Program	1	PH-0686	09-30-18
Florida	NELAP	4	E87667	06-30-17
Georgia	State Program	4	N/A	01-08-18
Illinois	NELAP	5	200017	04-30-18
Iowa	State Program	7	370	12-01-18 *
Kansas	NELAP	7	E-10166	04-30-17 *
Louisiana	NELAP	6	02096	06-30-17
Maine	State Program	1	CO0002	03-03-19
Minnesota	NELAP	5	8-999-405	12-31-17 *
Nevada	State Program	9	CO0026	07-31-17
New Hampshire	NELAP	1	205310	04-28-17
New Jersey	NELAP	2	CO004	06-30-17
New York	NELAP	2	11964	04-01-18
North Carolina (WW/SW)	State Program	4	358	12-31-17
North Dakota	State Program	8	R-034	01-09-18
Oklahoma	State Program	6	8614	08-31-17
Oregon	NELAP	10	4025	01-08-18
Pennsylvania	NELAP	3	68-00664	07-31-17
South Carolina	State Program	4	72002001	01-09-17 *
Texas	NELAP	6	T104704183-16-12	09-30-17
USDA	Federal		P330-16-00397	12-15-19
Utah	NELAP	8	CO00026	07-31-17
Virginia	NELAP	3	460232	06-14-17
Washington	State Program	10	C583	08-02-17
West Virginia DEP	State Program	3	354	11-30-17
Wisconsin	State Program	5	999615430	08-31-17
Wyoming (UST)	A2LA	8	2907.01	10-31-17

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

TestAmerica Denver

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-94601-2

Login Number: 94601

List Number: 1

Creator: True, Joshua A

List Source: TestAmerica Denver

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 (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver

4955 Yarrow Street

Arvada, CO 80002

Tel: (303)736-0100

TestAmerica Job ID: 280-94682-1

Client Project/Site: Stantec CVX - Rangely, CO

Revision: 1

For:

Stantec Consulting Corp.

8770 Guion Road

Suite B

Indianapolis, Indiana 46268

Attn: Susan Hall



Authorized for release by:

4/5/2017 4:13:41 PM

Jamie Ide, Project Manager I

(303)736-0126

jamie.ide@testamericainc.com

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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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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Qualifiers

GC/MS Semi 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.
B	Compound was found in the blank and sample.

GC VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
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.
B	Compound was found in the blank and sample.
F3	Duplicate RPD exceeds the control limit

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
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, 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)

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Job ID: 280-94682-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Stantec Consulting Corp.
Project: Stantec CVX - Rangely, CO
Report Number: 280-94682-1

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.

REVISION - 4/5/17

Per client request 3/31/17, the ORO originally requested on the chain of custody was removed from the analytical report.

RECEIPT

The samples were received on 3/9/2017 6:32 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.1° C.

The requested Electrical Conductivity (EC) and 7196A Trivalent and Hexavalent Chromium analyses were performed by TestAmerica's Nashville laboratory.

The chain of custody requests DRO, ORO, and GRO analyses by Method 8015B as quoted by TestAmerica. However, the laboratory will perform these analyses by method 8015C as the more current method version is also compatible with the additionally requested silica gel clean-up pre-prep method.

The chain of custody requests Mercury (Hg) analysis by 7171A; the laboratory will perform this analysis by method 7471A as quoted by TestAmerica.

Arsenic was logged for analysis by method 6020 to provide required reporting limits. The client was notified on 3/10/2017.

For the requested 8260B BTEX analyses, the laboratory received terracore VOA vials (2 preserved with sodium bisulfate and 1 preserved with methanol) for each sample with 10 grams of sample volume in the container instead of the method prescribed 5 grams per container. The laboratory will not perform low level analysis on the samples due to the excess sample volume and risk of damage to the analytical instrument. The laboratory will screen sample volume for each sample and if the results of the screen show positive results for high levels of target or non-target analytes medium level analysis will be activated. The medium level analysis has been placed on hold pending analyst discretion from screen results. The client was notified on 3/10/2017.

The requested 8015C DRO/ORO (No Silica Gel Cleanup) will be reported under a separate cover (280-94682-2); all other analyses requested on the chain of custody will be found in this report.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

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

SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM)

Anthracene, Fluoranthene and Pyrene were detected in method blank MB 280-365159/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

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

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Job ID: 280-94682-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

GASOLINE RANGE ORGANICS (GRO)

a,a,a-Trifluorotoluene failed the surrogate recovery criteria low for RC4-HEL02-0.25 (280-94682-1), RC4-HEL03-0.25 (280-94682-2), and RC4-HER05-0.25 (280-94682-4). Evidence of matrix interference is present; therefore, corrective action was not performed.

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

DIESEL RANGE ORGANICS

o-Terphenyl failed the surrogate recovery criteria high for MB 280-365103/1-B, and LCS 280-365103/2-B. The spiked range for the LCS/MS/MSD is well in control and the MB is ND for target compounds. The associated samples are well control for the surrogate.

The following sample could not be thoroughly homogenized before sub-sampling was performed due to sample matrix: RC4-HER05-0.25 (280-94682-4). The sample was a hard clay.

The initial aliquot and surrogate aliquot used for extraction of the following sample was split between two extraction vessels with the routine volume of solvent added to each vessel: RC4-HER05-0.25 (280-94682-4). The extracts from both vessels were combined and concentrated. This was done due to the nature of the sample matrix. The sample was a hard clay.

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

SODIUM ABSORPTION RATIO

Ca exceeded the RPD limit for the duplicate of sample RC4-HER05-0.25DU (280-94682-4). This analyte is included for calculation purposes only.

The following sample could not be thoroughly homogenized before sub-sampling was performed due to sample matrix: RC4-HER05-0.25 (280-94682-4) and (280-94682-A-4 DU). The sample was clay.

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

TOTAL METALS (ICP)

Boron, Calcium, Chromium and Magnesium were detected in method blank MB 280-365093/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Several analytes exceeded the RPD limit for the MSD of sample RC4-HEL02-0.25MSD (280-94682-1) in batch 280-365199. The associated MS/MSD spike recoveries were in control and demonstrate that operating procedures were in control. No further action was required.

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

METALS (ICPMS)

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

TOTAL MERCURY (CVAA)

The MS/MSD performed on sample RC4-HEL02-0.25 (280-94682-1) exhibited spike recoveries and RPD data outside QC control limits for Mercury. The associated LCS was in control and demonstrates that operating procedures were in control. No further action was required. No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HEXAVALENT CHROMIUM

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

TRIVALENT CHROMIUM

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

PH

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Job ID: 280-94682-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

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

ELECTRICAL CONDUCTIVITY

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

PERCENT SOLIDS

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

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Client Sample ID: RC4-HEL02-0.25

Lab Sample ID: 280-94682-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzo[a]anthracene	0.0012	J	0.0055	0.00099	mg/Kg	1		✱	8270D SIM	Total/NA
Chrysene	0.0012	J	0.0055	0.0011	mg/Kg	1		✱	8270D SIM	Total/NA
Naphthalene	0.00084	J	0.0055	0.00036	mg/Kg	1		✱	8270D SIM	Total/NA
Pyrene	0.0017	J B	0.0055	0.0012	mg/Kg	1		✱	8270D SIM	Total/NA
DRO (C10-C28)	8.7		4.5	0.76	mg/Kg	1		✱	8015C	Total/NA
Na	86		10	10	mg/Kg	10			20B	Soluble
Ca	53		2.0	2.0	mg/Kg	10			20B	Soluble
Mg	11		2.0	2.0	mg/Kg	10			20B	Soluble
Sodium Adsorption Ratio	2.8		1.2	1.2	No Unit	10			20B	Soluble
Barium	310		1.0	0.10	mg/Kg	1		✱	6010C	Total/NA
Cadmium	0.38	J F2	0.50	0.041	mg/Kg	1		✱	6010C	Total/NA
Chromium	14	B	1.5	0.058	mg/Kg	1		✱	6010C	Total/NA
Lead	14	F2	0.91	0.31	mg/Kg	1		✱	6010C	Total/NA
Boron	12	B F2	10	0.99	mg/Kg	1		✱	6010C	Total/NA
Selenium	0.86	J F2	1.5	0.86	mg/Kg	1		✱	6010C	Total/NA
Calcium	22000	B	50	14	mg/Kg	1		✱	6010C	Total/NA
Copper	13	F2	2.0	0.22	mg/Kg	1		✱	6010C	Total/NA
Magnesium	11000	B	20	3.7	mg/Kg	1		✱	6010C	Total/NA
Nickel	13	F2	4.0	0.13	mg/Kg	1		✱	6010C	Total/NA
Sodium	250	J F2	500	59	mg/Kg	1		✱	6010C	Total/NA
Zinc	62		3.0	0.40	mg/Kg	1		✱	6010C	Total/NA
Arsenic	6.9		0.67	0.056	mg/Kg	1		✱	6020A	Total/NA
Mercury	0.020	J F2 F1	0.021	0.0070	mg/Kg	1		✱	7471A	Total/NA
Chromium, hex	3.8	J	5.6	2.2	mg/Kg	1		✱	7196A	Total/NA
Chromium, trivalent	10		5.7	2.3	mg/Kg	1		✱	7196A	Total/NA
pH adj. to 25 deg C	8.5	HF	0.1	0.1	SU	1			9045D	Soluble
Temperature	21.5	HF	1.0	1.0	Degrees C	1			9045D	Soluble
Electrical Conductivity	0.42		0.010	0.010	mmhos/cm	1			9050A	Soluble

Client Sample ID: RC4-HEL03-0.25

Lab Sample ID: 280-94682-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Naphthalene	0.00080	J	0.0059	0.00038	mg/Kg	1		✱	8270D SIM	Total/NA
DRO (C10-C28)	9.2		4.7	0.79	mg/Kg	1		✱	8015C	Total/NA
Na	130		10	10	mg/Kg	10			20B	Soluble
Ca	59		2.0	2.0	mg/Kg	10			20B	Soluble
Mg	7.6		2.0	2.0	mg/Kg	10			20B	Soluble
Sodium Adsorption Ratio	4.2		1.2	1.2	No Unit	10			20B	Soluble
Barium	120		0.85	0.088	mg/Kg	1		✱	6010C	Total/NA
Cadmium	0.39	J	0.43	0.035	mg/Kg	1		✱	6010C	Total/NA
Chromium	17	B	1.3	0.049	mg/Kg	1		✱	6010C	Total/NA
Lead	15		0.77	0.26	mg/Kg	1		✱	6010C	Total/NA
Boron	14	B	8.5	0.83	mg/Kg	1		✱	6010C	Total/NA
Selenium	1.1	J	1.3	0.73	mg/Kg	1		✱	6010C	Total/NA
Calcium	22000	B	43	12	mg/Kg	1		✱	6010C	Total/NA
Copper	14		1.7	0.18	mg/Kg	1		✱	6010C	Total/NA
Magnesium	11000	B	17	3.1	mg/Kg	1		✱	6010C	Total/NA
Nickel	15		3.4	0.11	mg/Kg	1		✱	6010C	Total/NA
Sodium	290	J	430	50	mg/Kg	1		✱	6010C	Total/NA
Zinc	67		2.6	0.34	mg/Kg	1		✱	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Client Sample ID: RC4-HEL03-0.25 (Continued)

Lab Sample ID: 280-94682-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Arsenic	7.2		0.50	0.042	mg/Kg	1		✖	6020A	Total/NA
Mercury	0.018	J	0.022	0.0072	mg/Kg	1		✖	7471A	Total/NA
Chromium, hex	3.2	J	5.7	2.3	mg/Kg	1		✖	7196A	Total/NA
Chromium, trivalent	14		5.9	2.3	mg/Kg	1		✖	7196A	Total/NA
pH adj. to 25 deg C	8.3	HF	0.1	0.1	SU	1			9045D	Soluble
Temperature	21.2	HF	1.0	1.0	Degrees C	1			9045D	Soluble
Electrical Conductivity	0.55		0.010	0.010	mmhos/cm	1			9050A	Soluble

Client Sample ID: RC4-HER04-0.25

Lab Sample ID: 280-94682-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chrysene	0.0011	J	0.0057	0.0011	mg/Kg	1		✖	8270D SIM	Total/NA
Naphthalene	0.0012	J	0.0057	0.00037	mg/Kg	1		✖	8270D SIM	Total/NA
Pyrene	0.0014	J B	0.0057	0.0013	mg/Kg	1		✖	8270D SIM	Total/NA
DRO (C10-C28)	15		4.7	0.80	mg/Kg	1		✖	8015C	Total/NA
Na	32		10	10	mg/Kg	10			20B	Soluble
Ca	64		2.0	2.0	mg/Kg	10			20B	Soluble
Mg	12		2.0	2.0	mg/Kg	10			20B	Soluble
Chromium	0.063	J B	1.6	0.062	mg/Kg	1		✖	6010C	Total/NA
Boron	1.9	J B	11	1.0	mg/Kg	1		✖	6010C	Total/NA
Arsenic	7.6		0.48	0.040	mg/Kg	1		✖	6020A	Total/NA
Mercury	0.013	J	0.021	0.0067	mg/Kg	1		✖	7471A	Total/NA
pH adj. to 25 deg C	8.4	HF	0.1	0.1	SU	1			9045D	Soluble
Temperature	21.9	HF	1.0	1.0	Degrees C	1			9045D	Soluble
Electrical Conductivity	0.29		0.010	0.010	mmhos/cm	1			9050A	Soluble

Client Sample ID: RC4-HER05-0.25

Lab Sample ID: 280-94682-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzo[a]anthracene	0.0029	J	0.0060	0.0011	mg/Kg	1		✖	8270D SIM	Total/NA
Chrysene	0.0012	J	0.0060	0.0012	mg/Kg	1		✖	8270D SIM	Total/NA
Naphthalene	0.0014	J	0.0060	0.00039	mg/Kg	1		✖	8270D SIM	Total/NA
Pyrene	0.0013	J B	0.0060	0.0013	mg/Kg	1		✖	8270D SIM	Total/NA
DRO (C10-C28)	5.2		4.9	0.84	mg/Kg	1		✖	8015C	Total/NA
Ca	110		2.0	2.0	mg/Kg	10			20B	Soluble
Mg	11		2.0	2.0	mg/Kg	10			20B	Soluble
Barium	150		1.1	0.11	mg/Kg	1		✖	6010C	Total/NA
Cadmium	0.43	J	0.55	0.045	mg/Kg	1		✖	6010C	Total/NA
Chromium	19	B	1.7	0.064	mg/Kg	1		✖	6010C	Total/NA
Lead	18		0.99	0.34	mg/Kg	1		✖	6010C	Total/NA
Boron	17	B	11	1.1	mg/Kg	1		✖	6010C	Total/NA
Calcium	26000	B	55	16	mg/Kg	1		✖	6010C	Total/NA
Copper	16		2.2	0.24	mg/Kg	1		✖	6010C	Total/NA
Magnesium	12000	B	22	4.1	mg/Kg	1		✖	6010C	Total/NA
Nickel	17		4.4	0.15	mg/Kg	1		✖	6010C	Total/NA
Sodium	140	J	550	65	mg/Kg	1		✖	6010C	Total/NA
Zinc	77		3.3	0.44	mg/Kg	1		✖	6010C	Total/NA
Arsenic	7.0		0.70	0.059	mg/Kg	1		✖	6020A	Total/NA
Mercury	0.028		0.023	0.0076	mg/Kg	1		✖	7471A	Total/NA
Chromium, hex	3.0	J	6.3	2.5	mg/Kg	1		✖	7196A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Client Sample ID: RC4-HER05-0.25 (Continued)

Lab Sample ID: 280-94682-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium, trivalent	16		6.3	2.5	mg/Kg	1	☼	7196A	Total/NA
pH adj. to 25 deg C	8.1	HF	0.1	0.1	SU	1		9045D	Soluble
Temperature	21.7	HF	1.0	1.0	Degrees C	1		9045D	Soluble
Electrical Conductivity	0.51		0.010	0.010	mmhos/cm	1		9050A	Soluble

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL DEN
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL DEN
8015C	Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	SW846	TAL DEN
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	TAL DEN
20B	Sodium Adsorption Ratio	USDA	TAL DEN
6010C	Metals (ICP)	SW846	TAL DEN
6020A	Metals (ICP/MS)	SW846	TAL DEN
7471A	Mercury (CVAA)	SW846	TAL DEN
7196A	Chromium, Hexavalent	SW846	TAL NSH
7196A	Chromium, Trivalent (Colorimetric)	SW846	TAL NSH
9045D	pH	SW846	TAL DEN
9050A	Specific Conductance	SW846	TAL NSH
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.

USDA = "USDA Agriculture Handbook 60, section 20B".

Laboratory References:

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

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-94682-1	RC4-HEL02-0.25	Solid	03/09/17 10:00	03/09/17 18:32
280-94682-2	RC4-HEL03-0.25	Solid	03/09/17 11:30	03/09/17 18:32
280-94682-3	RC4-HER04-0.25	Solid	03/09/17 12:20	03/09/17 18:32
280-94682-4	RC4-HER05-0.25	Solid	03/09/17 13:05	03/09/17 18:32

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

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

Client Sample ID: RC4-HEL02-0.25

Date Collected: 03/09/17 10:00

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-1

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0057	0.00053	mg/Kg	☼	03/13/17 12:16	03/13/17 13:03	1
Ethylbenzene	ND		0.0057	0.00076	mg/Kg	☼	03/13/17 12:16	03/13/17 13:03	1
Toluene	ND		0.0057	0.00078	mg/Kg	☼	03/13/17 12:16	03/13/17 13:03	1
m-Xylene & p-Xylene	ND		0.0028	0.0012	mg/Kg	☼	03/13/17 12:16	03/13/17 13:03	1
o-Xylene	ND		0.0028	0.00069	mg/Kg	☼	03/13/17 12:16	03/13/17 13:03	1
Xylenes, Total	ND		0.0057	0.00069	mg/Kg	☼	03/13/17 12:16	03/13/17 13:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	191		53 - 149	90/10/17 12:17	90/10/17 10:90	1
8oluene-d3 (Surr)	XT		39 - 127	90/10/17 12:17	90/10/17 10:90	1
4-6roB ortuorof enbene (Surr)	X4		77 - 127	90/10/17 12:17	90/10/17 10:90	1
Dif roB ortuoroB ethane (Surr)	194		75 - 121	90/10/17 12:17	90/10/17 10:90	1

Client Sample ID: RC4-HEL03-0.25

Date Collected: 03/09/17 11:30

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-2

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0057	0.00054	mg/Kg	☼	03/13/17 12:16	03/13/17 14:05	1
Ethylbenzene	ND		0.0057	0.00077	mg/Kg	☼	03/13/17 12:16	03/13/17 14:05	1
Toluene	ND		0.0057	0.00079	mg/Kg	☼	03/13/17 12:16	03/13/17 14:05	1
m-Xylene & p-Xylene	ND		0.0029	0.0012	mg/Kg	☼	03/13/17 12:16	03/13/17 14:05	1
o-Xylene	ND		0.0029	0.00070	mg/Kg	☼	03/13/17 12:16	03/13/17 14:05	1
Xylenes, Total	ND		0.0057	0.00070	mg/Kg	☼	03/13/17 12:16	03/13/17 14:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	190		53 - 149	90/10/17 12:17	90/10/17 14:95	1
8oluene-d3 (Surr)	X4		39 - 127	90/10/17 12:17	90/10/17 14:95	1
4-6roB ortuorof enbene (Surr)	X0		77 - 127	90/10/17 12:17	90/10/17 14:95	1
Dif roB ortuoroB ethane (Surr)	197		75 - 121	90/10/17 12:17	90/10/17 14:95	1

Client Sample ID: RC4-HER04-0.25

Date Collected: 03/09/17 12:20

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-3

Matrix: Solid

Percent Solids: 85.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0059	0.00055	mg/Kg	☼	03/13/17 12:16	03/13/17 14:26	1
Ethylbenzene	ND		0.0059	0.00079	mg/Kg	☼	03/13/17 12:16	03/13/17 14:26	1
Toluene	ND		0.0059	0.00081	mg/Kg	☼	03/13/17 12:16	03/13/17 14:26	1
m-Xylene & p-Xylene	ND		0.0029	0.0012	mg/Kg	☼	03/13/17 12:16	03/13/17 14:26	1
o-Xylene	ND		0.0029	0.00072	mg/Kg	☼	03/13/17 12:16	03/13/17 14:26	1
Xylenes, Total	ND		0.0059	0.00072	mg/Kg	☼	03/13/17 12:16	03/13/17 14:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	199		53 - 149	90/10/17 12:17	90/10/17 14:27	1
8oluene-d3 (Surr)	X0		39 - 127	90/10/17 12:17	90/10/17 14:27	1
4-6roB ortuorof enbene (Surr)	X0		77 - 127	90/10/17 12:17	90/10/17 14:27	1
Dif roB ortuoroB ethane (Surr)	195		75 - 121	90/10/17 12:17	90/10/17 14:27	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

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

Client Sample ID: RC4-HER05-0.25

Date Collected: 03/09/17 13:05

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-4

Matrix: Solid

Percent Solids: 79.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0061	0.00058	mg/Kg	☼	03/13/17 12:16	03/13/17 14:46	1
Ethylbenzene	ND		0.0061	0.00082	mg/Kg	☼	03/13/17 12:16	03/13/17 14:46	1
Toluene	ND		0.0061	0.00085	mg/Kg	☼	03/13/17 12:16	03/13/17 14:46	1
m-Xylene & p-Xylene	ND		0.0031	0.0013	mg/Kg	☼	03/13/17 12:16	03/13/17 14:46	1
o-Xylene	ND		0.0031	0.00075	mg/Kg	☼	03/13/17 12:16	03/13/17 14:46	1
Xylenes, Total	ND		0.0061	0.00075	mg/Kg	☼	03/13/17 12:16	03/13/17 14:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	191		53 - 149	90/10/17 12:17	90/10/17 14:47	1
8oluen-d3 (Surr)	X4		39 - 127	90/10/17 12:17	90/10/17 14:47	1
4-6roB ortuorof enbene (Surr)	X1		77 - 127	90/10/17 12:17	90/10/17 14:47	1
Dif roB ortuoroB ethane (Surr)	190		75 - 121	90/10/17 12:17	90/10/17 14:47	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Client Sample ID: RC4-HEL02-0.25

Date Collected: 03/09/17 10:00

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-1

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0055	0.00018	mg/Kg	☼	03/12/17 19:15	03/14/17 20:30	1
Anthracene	ND		0.0055	0.00080	mg/Kg	☼	03/12/17 19:15	03/14/17 20:30	1
Benzo[a]anthracene	0.0012	J	0.0055	0.00099	mg/Kg	☼	03/12/17 19:15	03/14/17 20:30	1
Benzo[a]pyrene	ND		0.0055	0.00082	mg/Kg	☼	03/12/17 19:15	03/14/17 20:30	1
Benzo[b]fluoranthene	ND		0.0055	0.0013	mg/Kg	☼	03/12/17 19:15	03/14/17 20:30	1
Benzo[k]fluoranthene	ND		0.0055	0.0011	mg/Kg	☼	03/12/17 19:15	03/14/17 20:30	1
Chrysene	0.0012	J	0.0055	0.0011	mg/Kg	☼	03/12/17 19:15	03/14/17 20:30	1
Dibenz(a,h)anthracene	ND		0.0055	0.0014	mg/Kg	☼	03/12/17 19:15	03/14/17 20:30	1
Fluoranthene	ND		0.0055	0.0011	mg/Kg	☼	03/12/17 19:15	03/14/17 20:30	1
Fluorene	ND		0.0055	0.00052	mg/Kg	☼	03/12/17 19:15	03/14/17 20:30	1
Indeno[1,2,3-cd]pyrene	ND		0.0055	0.0012	mg/Kg	☼	03/12/17 19:15	03/14/17 20:30	1
Naphthalene	0.00084	J	0.0055	0.00036	mg/Kg	☼	03/12/17 19:15	03/14/17 20:30	1
Pyrene	0.0017	J B	0.0055	0.0012	mg/Kg	☼	03/12/17 19:15	03/14/17 20:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-zluorof iFhenpl	74		0X - 129	90/12/17 1X:15	90/14/17 29:09	1
y itrof enbene-d5	X9		42 - 129	90/12/17 1X:15	90/14/17 29:09	1
8erFhenpl-d14	T7		05 - 124	90/12/17 1X:15	90/14/17 29:09	1

Client Sample ID: RC4-HEL03-0.25

Date Collected: 03/09/17 11:30

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-2

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0059	0.00019	mg/Kg	☼	03/12/17 19:15	03/14/17 15:20	1
Anthracene	ND		0.0059	0.00084	mg/Kg	☼	03/12/17 19:15	03/14/17 15:20	1
Benzo[a]anthracene	ND		0.0059	0.0011	mg/Kg	☼	03/12/17 19:15	03/14/17 15:20	1
Benzo[a]pyrene	ND		0.0059	0.00087	mg/Kg	☼	03/12/17 19:15	03/14/17 15:20	1
Benzo[b]fluoranthene	ND		0.0059	0.0014	mg/Kg	☼	03/12/17 19:15	03/14/17 15:20	1
Benzo[k]fluoranthene	ND		0.0059	0.0012	mg/Kg	☼	03/12/17 19:15	03/14/17 15:20	1
Chrysene	ND		0.0059	0.0012	mg/Kg	☼	03/12/17 19:15	03/14/17 15:20	1
Dibenz(a,h)anthracene	ND		0.0059	0.0015	mg/Kg	☼	03/12/17 19:15	03/14/17 15:20	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: RC4-HEL03-0.25

Date Collected: 03/09/17 11:30

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-2

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		0.0059	0.0012	mg/Kg	☼	03/12/17 19:15	03/14/17 15:20	1
Fluorene	ND		0.0059	0.00055	mg/Kg	☼	03/12/17 19:15	03/14/17 15:20	1
Indeno[1,2,3-cd]pyrene	ND		0.0059	0.0013	mg/Kg	☼	03/12/17 19:15	03/14/17 15:20	1
Naphthalene	0.00080	J	0.0059	0.00038	mg/Kg	☼	03/12/17 19:15	03/14/17 15:20	1
Pyrene	ND		0.0059	0.0013	mg/Kg	☼	03/12/17 19:15	03/14/17 15:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-zluorof iFhenpl	31		0X - 129	90/12/17 1X:15	90/14/17 15:29	1
y itrof enbene-d5	XT		42 - 129	90/12/17 1X:15	90/14/17 15:29	1
8erFhenpl-d14	71		05 - 124	90/12/17 1X:15	90/14/17 15:29	1

Client Sample ID: RC4-HER04-0.25

Date Collected: 03/09/17 12:20

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-3

Matrix: Solid

Percent Solids: 85.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0057	0.00018	mg/Kg	☼	03/12/17 19:15	03/14/17 15:46	1
Anthracene	ND		0.0057	0.00083	mg/Kg	☼	03/12/17 19:15	03/14/17 15:46	1
Benzo[a]anthracene	ND		0.0057	0.0010	mg/Kg	☼	03/12/17 19:15	03/14/17 15:46	1
Benzo[a]pyrene	ND		0.0057	0.00085	mg/Kg	☼	03/12/17 19:15	03/14/17 15:46	1
Benzo[b]fluoranthene	ND		0.0057	0.0014	mg/Kg	☼	03/12/17 19:15	03/14/17 15:46	1
Benzo[k]fluoranthene	ND		0.0057	0.0011	mg/Kg	☼	03/12/17 19:15	03/14/17 15:46	1
Chrysene	0.0011	J	0.0057	0.0011	mg/Kg	☼	03/12/17 19:15	03/14/17 15:46	1
Dibenz(a,h)anthracene	ND		0.0057	0.0015	mg/Kg	☼	03/12/17 19:15	03/14/17 15:46	1
Fluoranthene	ND		0.0057	0.0011	mg/Kg	☼	03/12/17 19:15	03/14/17 15:46	1
Fluorene	ND		0.0057	0.00054	mg/Kg	☼	03/12/17 19:15	03/14/17 15:46	1
Indeno[1,2,3-cd]pyrene	ND		0.0057	0.0013	mg/Kg	☼	03/12/17 19:15	03/14/17 15:46	1
Naphthalene	0.0012	J	0.0057	0.00037	mg/Kg	☼	03/12/17 19:15	03/14/17 15:46	1
Pyrene	0.0014	J B	0.0057	0.0013	mg/Kg	☼	03/12/17 19:15	03/14/17 15:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-zluorof iFhenpl	70		0X - 129	90/12/17 1X:15	90/14/17 15:47	1
y itrof enbene-d5	35		42 - 129	90/12/17 1X:15	90/14/17 15:47	1
8erFhenpl-d14	T4		05 - 124	90/12/17 1X:15	90/14/17 15:47	1

Client Sample ID: RC4-HER05-0.25

Date Collected: 03/09/17 13:05

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-4

Matrix: Solid

Percent Solids: 79.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0060	0.00019	mg/Kg	☼	03/12/17 19:15	03/14/17 16:12	1
Anthracene	ND		0.0060	0.00087	mg/Kg	☼	03/12/17 19:15	03/14/17 16:12	1
Benzo[a]anthracene	0.0029	J	0.0060	0.0011	mg/Kg	☼	03/12/17 19:15	03/14/17 16:12	1
Benzo[a]pyrene	ND		0.0060	0.00089	mg/Kg	☼	03/12/17 19:15	03/14/17 16:12	1
Benzo[b]fluoranthene	ND		0.0060	0.0015	mg/Kg	☼	03/12/17 19:15	03/14/17 16:12	1
Benzo[k]fluoranthene	ND		0.0060	0.0012	mg/Kg	☼	03/12/17 19:15	03/14/17 16:12	1
Chrysene	0.0012	J	0.0060	0.0012	mg/Kg	☼	03/12/17 19:15	03/14/17 16:12	1
Dibenz(a,h)anthracene	ND		0.0060	0.0016	mg/Kg	☼	03/12/17 19:15	03/14/17 16:12	1
Fluoranthene	ND		0.0060	0.0012	mg/Kg	☼	03/12/17 19:15	03/14/17 16:12	1
Fluorene	ND		0.0060	0.00057	mg/Kg	☼	03/12/17 19:15	03/14/17 16:12	1
Indeno[1,2,3-cd]pyrene	ND		0.0060	0.0013	mg/Kg	☼	03/12/17 19:15	03/14/17 16:12	1
Naphthalene	0.0014	J	0.0060	0.00039	mg/Kg	☼	03/12/17 19:15	03/14/17 16:12	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: RC4-HER05-0.25

Date Collected: 03/09/17 13:05

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-4

Matrix: Solid

Percent Solids: 79.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	0.0013	J B	0.0060	0.0013	mg/Kg	☼	03/12/17 19:15	03/14/17 16:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-zluorof iFhenpl	79		0X - 129	90/12/17 1X:15	90/14/17 1T:12	1
y itrof enbene-d5	X7		42 - 129	90/12/17 1X:15	90/14/17 1T:12	1
8erFhenpl-d14	T9		05 - 124	90/12/17 1X:15	90/14/17 1T:12	1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-HEL02-0.25

Date Collected: 03/09/17 10:00

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-1

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		0.59	0.16	mg/Kg	☼	03/09/17 10:00	03/11/17 16:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-8rirtuorotoluene	7T	N	77 - 120	90/9X/17 19:99	90/11/17 1T:11	1

Client Sample ID: RC4-HEL03-0.25

Date Collected: 03/09/17 11:30

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-2

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		0.47	0.13	mg/Kg	☼	03/09/17 11:30	03/11/17 16:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-8rirtuorotoluene	TX	N	77 - 120	90/9X/17 11:09	90/11/17 1T:05	1

Client Sample ID: RC4-HER04-0.25

Date Collected: 03/09/17 12:20

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-3

Matrix: Solid

Percent Solids: 85.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		0.56	0.15	mg/Kg	☼	03/09/17 12:20	03/11/17 17:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-8rirtuorotoluene	3X		77 - 120	90/9X/17 12:29	90/11/17 17:99	1

Client Sample ID: RC4-HER05-0.25

Date Collected: 03/09/17 13:05

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-4

Matrix: Solid

Percent Solids: 79.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		0.42	0.11	mg/Kg	☼	03/09/17 13:05	03/11/17 17:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-8rirtuorotoluene	50	N	77 - 120	90/9X/17 10:95	90/11/17 17:25	1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-HEL02-0.25

Date Collected: 03/09/17 10:00

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-1

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	8.7		4.5	0.76	mg/Kg	☼	03/10/17 15:45	03/14/17 20:03	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -8erFhenpl (Surr)	XX		4X- 115				90/19/17 15:45	90/14/17 29:90	1
Client Sample ID: RC4-HEL03-0.25 Date Collected: 03/09/17 11:30 Date Received: 03/09/17 18:32							Lab Sample ID: 280-94682-2 Matrix: Solid Percent Solids: 85.1		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	9.2		4.7	0.79	mg/Kg	☼	03/10/17 15:45	03/14/17 20:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -8erFhenpl (Surr)	192		4X- 115				90/19/17 15:45	90/14/17 29:23	1
Client Sample ID: RC4-HER04-0.25 Date Collected: 03/09/17 12:20 Date Received: 03/09/17 18:32							Lab Sample ID: 280-94682-3 Matrix: Solid Percent Solids: 85.0		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	15		4.7	0.80	mg/Kg	☼	03/10/17 15:45	03/14/17 20:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -8erFhenpl (Surr)	192		4X- 115				90/19/17 15:45	90/14/17 29:50	1
Client Sample ID: RC4-HER05-0.25 Date Collected: 03/09/17 13:05 Date Received: 03/09/17 18:32							Lab Sample ID: 280-94682-4 Matrix: Solid Percent Solids: 79.0		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	5.2		4.9	0.84	mg/Kg	☼	03/10/17 15:45	03/14/17 22:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -8erFhenpl (Surr)	X1		4X- 115				90/19/17 15:45	90/14/17 22:97	1

Method: 20B - Sodium Adsorption Ratio - Soluble

Client Sample ID: RC4-HEL02-0.25							Lab Sample ID: 280-94682-1		
Date Collected: 03/09/17 10:00							Matrix: Solid		
Date Received: 03/09/17 18:32							Percent Solids: 87.9		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	86		10	10	mg/Kg		03/10/17 15:54	03/14/17 09:58	10
Ca	53		2.0	2.0	mg/Kg		03/10/17 15:54	03/14/17 09:58	10
Mg	11		2.0	2.0	mg/Kg		03/10/17 15:54	03/14/17 09:58	10
Sodium Adsorption Ratio	2.8		1.2	1.2	No Unit		03/10/17 15:54	03/14/17 09:58	10
Client Sample ID: RC4-HEL03-0.25							Lab Sample ID: 280-94682-2		
Date Collected: 03/09/17 11:30							Matrix: Solid		
Date Received: 03/09/17 18:32							Percent Solids: 85.1		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	130		10	10	mg/Kg		03/10/17 15:54	03/14/17 10:01	10
Ca	59		2.0	2.0	mg/Kg		03/10/17 15:54	03/14/17 10:01	10
Mg	7.6		2.0	2.0	mg/Kg		03/10/17 15:54	03/14/17 10:01	10
Sodium Adsorption Ratio	4.2		1.2	1.2	No Unit		03/10/17 15:54	03/14/17 10:01	10

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Method: 20B - Sodium Adsorption Ratio - Soluble

Client Sample ID: RC4-HER04-0.25

Date Collected: 03/09/17 12:20

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-3

Matrix: Solid

Percent Solids: 85.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	32		10	10	mg/Kg		03/10/17 15:54	03/14/17 10:04	10
Ca	64		2.0	2.0	mg/Kg		03/10/17 15:54	03/14/17 10:04	10
Mg	12		2.0	2.0	mg/Kg		03/10/17 15:54	03/14/17 10:04	10
Sodium Adsorption Ratio	ND		1.2	1.2	No Unit		03/10/17 15:54	03/14/17 10:04	10

Client Sample ID: RC4-HER05-0.25

Date Collected: 03/09/17 13:05

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-4

Matrix: Solid

Percent Solids: 79.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	ND		10	10	mg/Kg		03/10/17 15:54	03/14/17 10:07	10
Ca	110		2.0	2.0	mg/Kg		03/10/17 15:54	03/14/17 10:07	10
Mg	11		2.0	2.0	mg/Kg		03/10/17 15:54	03/14/17 10:07	10
Sodium Adsorption Ratio	ND		1.2	1.2	No Unit		03/10/17 15:54	03/14/17 10:07	10

Method: 6010C - Metals (ICP)

Client Sample ID: RC4-HEL02-0.25

Date Collected: 03/09/17 10:00

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-1

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	310		1.0	0.10	mg/Kg	☼	03/10/17 14:20	03/11/17 04:19	1
Cadmium	0.38	J F2	0.50	0.041	mg/Kg	☼	03/10/17 14:20	03/11/17 04:19	1
Chromium	14	B	1.5	0.058	mg/Kg	☼	03/10/17 14:20	03/11/17 04:19	1
Lead	14	F2	0.91	0.31	mg/Kg	☼	03/10/17 14:20	03/11/17 04:19	1
Boron	12	B F2	10	0.99	mg/Kg	☼	03/10/17 14:20	03/11/17 04:19	1
Selenium	0.86	J F2	1.5	0.86	mg/Kg	☼	03/10/17 14:20	03/11/17 04:19	1
Silver	ND	F2	1.0	0.16	mg/Kg	☼	03/10/17 14:20	03/11/17 04:19	1
Calcium	22000	B	50	14	mg/Kg	☼	03/10/17 14:20	03/11/17 04:19	1
Copper	13	F2	2.0	0.22	mg/Kg	☼	03/10/17 14:20	03/11/17 04:19	1
Magnesium	11000	B	20	3.7	mg/Kg	☼	03/10/17 14:20	03/11/17 04:19	1
Nickel	13	F2	4.0	0.13	mg/Kg	☼	03/10/17 14:20	03/11/17 04:19	1
Sodium	250	J F2	500	59	mg/Kg	☼	03/10/17 14:20	03/11/17 04:19	1
Zinc	62		3.0	0.40	mg/Kg	☼	03/10/17 14:20	03/11/17 04:19	1

Client Sample ID: RC4-HEL03-0.25

Date Collected: 03/09/17 11:30

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-2

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	120		0.85	0.088	mg/Kg	☼	03/10/17 14:20	03/11/17 04:31	1
Cadmium	0.39	J	0.43	0.035	mg/Kg	☼	03/10/17 14:20	03/11/17 04:31	1
Chromium	17	B	1.3	0.049	mg/Kg	☼	03/10/17 14:20	03/11/17 04:31	1
Lead	15		0.77	0.26	mg/Kg	☼	03/10/17 14:20	03/11/17 04:31	1
Boron	14	B	8.5	0.83	mg/Kg	☼	03/10/17 14:20	03/11/17 04:31	1
Selenium	1.1	J	1.3	0.73	mg/Kg	☼	03/10/17 14:20	03/11/17 04:31	1
Silver	ND		0.85	0.14	mg/Kg	☼	03/10/17 14:20	03/11/17 04:31	1
Calcium	22000	B	43	12	mg/Kg	☼	03/10/17 14:20	03/11/17 04:31	1
Copper	14		1.7	0.18	mg/Kg	☼	03/10/17 14:20	03/11/17 04:31	1
Magnesium	11000	B	17	3.1	mg/Kg	☼	03/10/17 14:20	03/11/17 04:31	1
Nickel	15		3.4	0.11	mg/Kg	☼	03/10/17 14:20	03/11/17 04:31	1
Sodium	290	J	430	50	mg/Kg	☼	03/10/17 14:20	03/11/17 04:31	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Method: 6010C - Metals (ICP) (Continued)

Client Sample ID: RC4-HEL03-0.25

Date Collected: 03/09/17 11:30

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-2

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	67		2.6	0.34	mg/Kg	☼	03/10/17 14:20	03/11/17 04:31	1

Client Sample ID: RC4-HER04-0.25

Date Collected: 03/09/17 12:20

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-3

Matrix: Solid

Percent Solids: 85.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		1.1	0.11	mg/Kg	☼	03/10/17 14:20	03/11/17 04:33	1
Cadmium	ND		0.53	0.044	mg/Kg	☼	03/10/17 14:20	03/11/17 04:33	1
Chromium	0.063	J B	1.6	0.062	mg/Kg	☼	03/10/17 14:20	03/11/17 04:33	1
Lead	ND		0.96	0.33	mg/Kg	☼	03/10/17 14:20	03/11/17 04:33	1
Boron	1.9	J B	11	1.0	mg/Kg	☼	03/10/17 14:20	03/11/17 04:33	1
Selenium	ND		1.6	0.91	mg/Kg	☼	03/10/17 14:20	03/11/17 04:33	1
Silver	ND		1.1	0.17	mg/Kg	☼	03/10/17 14:20	03/11/17 04:33	1
Calcium	ND		53	15	mg/Kg	☼	03/10/17 14:20	03/11/17 04:33	1
Copper	ND		2.1	0.23	mg/Kg	☼	03/10/17 14:20	03/11/17 04:33	1
Magnesium	ND		21	3.9	mg/Kg	☼	03/10/17 14:20	03/11/17 04:33	1
Nickel	ND		4.3	0.14	mg/Kg	☼	03/10/17 14:20	03/11/17 04:33	1
Sodium	ND		530	63	mg/Kg	☼	03/10/17 14:20	03/11/17 04:33	1
Zinc	ND		3.2	0.42	mg/Kg	☼	03/10/17 14:20	03/11/17 04:33	1

Client Sample ID: RC4-HER05-0.25

Date Collected: 03/09/17 13:05

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-4

Matrix: Solid

Percent Solids: 79.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	150		1.1	0.11	mg/Kg	☼	03/10/17 14:20	03/11/17 04:36	1
Cadmium	0.43	J	0.55	0.045	mg/Kg	☼	03/10/17 14:20	03/11/17 04:36	1
Chromium	19	B	1.7	0.064	mg/Kg	☼	03/10/17 14:20	03/11/17 04:36	1
Lead	18		0.99	0.34	mg/Kg	☼	03/10/17 14:20	03/11/17 04:36	1
Boron	17	B	11	1.1	mg/Kg	☼	03/10/17 14:20	03/11/17 04:36	1
Selenium	ND		1.7	0.95	mg/Kg	☼	03/10/17 14:20	03/11/17 04:36	1
Silver	ND		1.1	0.18	mg/Kg	☼	03/10/17 14:20	03/11/17 04:36	1
Calcium	26000	B	55	16	mg/Kg	☼	03/10/17 14:20	03/11/17 04:36	1
Copper	16		2.2	0.24	mg/Kg	☼	03/10/17 14:20	03/11/17 04:36	1
Magnesium	12000	B	22	4.1	mg/Kg	☼	03/10/17 14:20	03/11/17 04:36	1
Nickel	17		4.4	0.15	mg/Kg	☼	03/10/17 14:20	03/11/17 04:36	1
Sodium	140	J	550	65	mg/Kg	☼	03/10/17 14:20	03/11/17 04:36	1
Zinc	77		3.3	0.44	mg/Kg	☼	03/10/17 14:20	03/11/17 04:36	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: RC4-HEL02-0.25

Date Collected: 03/09/17 10:00

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-1

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.9		0.67	0.056	mg/Kg	☼	03/10/17 14:20	03/11/17 02:36	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: RC4-HEL03-0.25

Date Collected: 03/09/17 11:30

Date Received: 03/09/17 18:32

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.2		0.50	0.042	mg/Kg	☼	03/10/17 14:20	03/11/17 02:39	1

Lab Sample ID: 280-94682-2

Matrix: Solid

Percent Solids: 85.1

Client Sample ID: RC4-HER04-0.25

Date Collected: 03/09/17 12:20

Date Received: 03/09/17 18:32

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.6		0.48	0.040	mg/Kg	☼	03/10/17 14:20	03/11/17 02:43	1

Lab Sample ID: 280-94682-3

Matrix: Solid

Percent Solids: 85.0

Client Sample ID: RC4-HER05-0.25

Date Collected: 03/09/17 13:05

Date Received: 03/09/17 18:32

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.0		0.70	0.059	mg/Kg	☼	03/10/17 14:20	03/11/17 02:47	1

Lab Sample ID: 280-94682-4

Matrix: Solid

Percent Solids: 79.0

Method: 7471A - Mercury (CVAA)

Client Sample ID: RC4-HEL02-0.25

Date Collected: 03/09/17 10:00

Date Received: 03/09/17 18:32

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020	J F2 F1	0.021	0.0070	mg/Kg	☼	03/10/17 11:59	03/10/17 19:24	1

Lab Sample ID: 280-94682-1

Matrix: Solid

Percent Solids: 87.9

Client Sample ID: RC4-HEL03-0.25

Date Collected: 03/09/17 11:30

Date Received: 03/09/17 18:32

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018	J	0.022	0.0072	mg/Kg	☼	03/10/17 11:59	03/10/17 19:31	1

Lab Sample ID: 280-94682-2

Matrix: Solid

Percent Solids: 85.1

Client Sample ID: RC4-HER04-0.25

Date Collected: 03/09/17 12:20

Date Received: 03/09/17 18:32

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.013	J	0.021	0.0067	mg/Kg	☼	03/10/17 11:59	03/10/17 19:33	1

Lab Sample ID: 280-94682-3

Matrix: Solid

Percent Solids: 85.0

Client Sample ID: RC4-HER05-0.25

Date Collected: 03/09/17 13:05

Date Received: 03/09/17 18:32

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028		0.023	0.0076	mg/Kg	☼	03/10/17 11:59	03/10/17 19:40	1

Lab Sample ID: 280-94682-4

Matrix: Solid

Percent Solids: 79.0

General Chemistry

Client Sample ID: RC4-HEL02-0.25

Date Collected: 03/09/17 10:00

Date Received: 03/09/17 18:32

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	3.8	J	5.6	2.2	mg/Kg	☼	03/11/17 16:32	03/11/17 20:24	1
Chromium, trivalent	10		5.7	2.3	mg/Kg	☼		03/15/17 08:29	1
Percent Moisture	12.1		0.1	0.1	%			03/10/17 09:36	1
Percent Solids	87.9		0.1	0.1	%			03/10/17 09:36	1

Lab Sample ID: 280-94682-1

Matrix: Solid

Percent Solids: 87.9

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

General Chemistry

Client Sample ID: RC4-HEL03-0.25

Date Collected: 03/09/17 11:30

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-2

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	3.2	J	5.7	2.3	mg/Kg	☼	03/11/17 16:32	03/11/17 20:24	1
Chromium, trivalent	14		5.9	2.3	mg/Kg	☼		03/15/17 08:29	1
Percent Moisture	14.9		0.1	0.1	%			03/10/17 09:36	1
Percent Solids	85.1		0.1	0.1	%			03/10/17 09:36	1

Client Sample ID: RC4-HER04-0.25

Date Collected: 03/09/17 12:20

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-3

Matrix: Solid

Percent Solids: 85.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	ND		5.8	2.3	mg/Kg	☼	03/11/17 16:32	03/11/17 20:24	1
Chromium, trivalent	ND		5.9	2.4	mg/Kg	☼		03/15/17 08:29	1
Percent Moisture	15.0		0.1	0.1	%			03/10/17 09:36	1
Percent Solids	85.0		0.1	0.1	%			03/10/17 09:36	1

Client Sample ID: RC4-HER05-0.25

Date Collected: 03/09/17 13:05

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-4

Matrix: Solid

Percent Solids: 79.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	3.0	J	6.3	2.5	mg/Kg	☼	03/11/17 16:32	03/11/17 20:24	1
Chromium, trivalent	16		6.3	2.5	mg/Kg	☼		03/15/17 08:29	1
Percent Moisture	21.0		0.1	0.1	%			03/10/17 09:36	1
Percent Solids	79.0		0.1	0.1	%			03/10/17 09:36	1

General Chemistry - Soluble

Client Sample ID: RC4-HEL02-0.25

Date Collected: 03/09/17 10:00

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-1

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	8.5	HF	0.1	0.1	SU			03/10/17 09:50	1
Temperature	21.5	HF	1.0	1.0	Degrees C			03/10/17 09:50	1
Electrical Conductivity	0.42		0.010	0.010	mmhos/cm		03/13/17 13:41	03/13/17 14:00	1

Client Sample ID: RC4-HEL03-0.25

Date Collected: 03/09/17 11:30

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-2

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	8.3	HF	0.1	0.1	SU			03/10/17 09:50	1
Temperature	21.2	HF	1.0	1.0	Degrees C			03/10/17 09:50	1
Electrical Conductivity	0.55		0.010	0.010	mmhos/cm		03/13/17 13:41	03/13/17 14:00	1

Client Sample ID: RC4-HER04-0.25

Date Collected: 03/09/17 12:20

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-3

Matrix: Solid

Percent Solids: 85.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	8.4	HF	0.1	0.1	SU			03/10/17 09:50	1
Temperature	21.9	HF	1.0	1.0	Degrees C			03/10/17 09:50	1
Electrical Conductivity	0.29		0.010	0.010	mmhos/cm		03/13/17 13:41	03/13/17 14:00	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

General Chemistry - Soluble

Client Sample ID: RC4-HER05-0.25

Date Collected: 03/09/17 13:05

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-4

Matrix: Solid

Percent Solids: 79.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	8.1	HF	0.1	0.1	SU			03/10/17 09:50	1
Temperature	21.7	HF	1.0	1.0	Degrees C			03/10/17 09:50	1
Electrical Conductivity	0.51		0.010	0.010	mmhos/cm		03/13/17 13:41	03/13/17 14:00	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate v eco7ery (Acceptance Limits)			
		12DCF (58-130)	TOL (80-126)	BRB (E6-12E)	DBRM (E5-121)
280-94682-1	RC4-HEL02-0.25	101	96	94	104
280-94682-1 MS	RC4-HEL02-0.25	100	94	90	103
280-94682-1 MSD	RC4-HEL02-0.25	99	92	88	101
280-94682-2	RC4-HEL03-0.25	103	94	93	106
280-94682-3	RC4-HER04-0.25	100	93	93	105
280-94682-4	RC4-HER05-0.25	101	94	91	103
LCS 280-365242/1-A	Lab Control Sample	92	93	87	99
MB 280-365242/3-A	Method Blank	99	91	88	102

Surrogate Legend

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

Method: 82E0D SIM - Semi7olatile Organic Compounds (GC/MS SIM)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate v eco7ery (Acceptance Limits)		
		RBP (94-120)	NBZ (32-120)	TPH (95-123)
280-94682-1	RC4-HEL02-0.25	74	90	67
280-94682-2	RC4-HEL03-0.25	81	96	71
280-94682-3	RC4-HER04-0.25	73	85	64
280-94682-4	RC4-HER05-0.25	70	97	60
LCS 280-365159/2-A	Lab Control Sample	81	92	77
MB 280-365159/1-A	Method Blank	74	85	79

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPH = Terphenyl-d14

Method: 8015C - Nonhalogenated Organics using GC/RID -Modified (Gasoline v ange Organics)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate v eco7ery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	TRT1 (EE-129)
280-94682-1	RC4-HEL02-0.25	76 X
280-94682-2	RC4-HEL03-0.25	69 X
280-94682-3	RC4-HER04-0.25	89
280-94682-4	RC4-HER05-0.25	53 X
LCS 280-365064/2-A	Lab Control Sample	95
LCSD 280-365064/3-A	Lab Control Sample Dup	93
MB 280-365064/1-A	Method Blank	90
Surrogate Legend		
TFT = a.a.a-Trifluorotoluene		

TestAmerica Denver

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Method: 8015C - Nonhalogenated Organics using GC/RID -Modified (Diesel v ange Organics)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate v eco7ery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTPH1 (34-115)
280-94682-1	RC4-HEL02-0.25	99
280-94682-2	RC4-HEL03-0.25	102
280-94682-3	RC4-HER04-0.25	102
280-94682-4	RC4-HER05-0.25	91
LCS 280-365103/2-B	Lab Control Sample	126 X
MB 280-365103/1-B	Method Blank	123 X

Surrogate Legend

OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

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

Lab Sample ID: MB 280-365242/3-A

Matrix: Solid

Analysis Batch: 365222

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365242

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	KD		0.0050	0.0004N	mg/3g		0E/1E/1N 11:00	0E/1E/1N 12:4E	1
ht7ylbenzene	KD		0.0050	0.0006N	mg/3g		0E/1E/1N 11:00	0E/1E/1N 12:4E	1
Toluene	KD		0.0050	0.00069	mg/3g		0E/1E/1N 11:00	0E/1E/1N 12:4E	1
m-Xylene F p-Xylene	KD		0.0025	0.0010	mg/3g		0E/1E/1N 11:00	0E/1E/1N 12:4E	1
o-Xylene	KD		0.0025	0.00061	mg/3g		0E/1E/1N 11:00	0E/1E/1N 12:4E	1
Xylenes, Total	KD		0.0050	0.00061	mg/3g		0E/1E/1N 11:00	0E/1E/1N 12:4E	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		53 - 140	0/ 7/ 7: 11:00	0/ 7/ 7: 12:4E	1
8oluene-d3 (Surr)	91		30 - 12X	0/ 7/ 7: 11:00	0/ 7/ 7: 12:4E	1
4-6roB ortuorof enbene (Surr)	33		: X - 12:	0/ 7/ 7: 11:00	0/ 7/ 7: 12:4E	1
Dif roB ortuoroB ethane (Surr)	102		: 5 - 121	0/ 7/ 7: 11:00	0/ 7/ 7: 12:4E	1

Lab Sample ID: LCS 280-365242/1-A

Matrix: Solid

Analysis Batch: 365222

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365242

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzene	0.0500	0.0425		mg/3g		85	N5 - 1E5
ht7ylbenzene	0.0500	0.0E9N		mg/3g		N9	NE - 125
Toluene	0.0500	0.042E		mg/3g		85	NN - 122
m-Xylene F p-Xylene	0.0500	0.0E92		mg/3g		N8	NN - 1E5
o-Xylene	0.0500	0.0406		mg/3g		81	N5 - 1E5
Xylenes, Total	0.100	0.0N98		mg/3g		80	N6 - 1E5

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		53 - 140
8oluene-d3 (Surr)	9/		30 - 12X
4-6roB ortuorof enbene (Surr)	3:		: X - 12:
Dif roB ortuoroB ethane (Surr)	99		: 5 - 121

Lab Sample ID: 280-94682-1 MS

Matrix: Solid

Analysis Batch: 365222

Client Sample ID: RC4-HEL02-0.25

Prep Type: Total/NA

Prep Batch: 365242

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Benzene	KD		0.0544	0.0565		mg/3g	☼	104	N5 - 1E5
ht7ylbenzene	KD		0.0544	0.0502		mg/3g	☼	92	NE - 125
Toluene	KD		0.0544	0.055E		mg/3g	☼	102	NN - 122
m-Xylene F p-Xylene	KD		0.0544	0.0486		mg/3g	☼	89	NN - 1E5
o-Xylene	KD		0.0544	0.050E		mg/3g	☼	92	N5 - 1E5
Xylenes, Total	KD		0.109	0.0989		mg/3g	☼	91	N6 - 1E5

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		53 - 140
8oluene-d3 (Surr)	94		30 - 12X
4-6roB ortuorof enbene (Surr)	90		: X - 12:

TestAmerica Den&er

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

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

Lab Sample ID: 280-94682-1 MS

Matrix: Solid

Analysis Batch: 365222

Client Sample ID: RC4-HEL02-0.25

Prep Type: Total/NA

Prep Batch: 365242

Surrogate	MS %Recovery	MS Qualifier	Limits
Dif roB orluoroB ethane (Surr)	10/		: 5 - 121

Lab Sample ID: 280-94682-1 MSD

Matrix: Solid

Analysis Batch: 365222

Client Sample ID: RC4-HEL02-0.25

Prep Type: Total/NA

Prep Batch: 365242

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	KD		0.0546	0.0565		mg/3g	☼	10E	N5 - 1E5	0	20
ht7ylbenzene	KD		0.0546	0.049N		mg/3g	☼	91	NE - 125	1	20
Toluene	KD		0.0546	0.0566		mg/3g	☼	104	NN - 122	2	20
m-Xylene F p-Xylene	KD		0.0546	0.049E		mg/3g	☼	90	NN - 1E5	1	20
o-Xylene	KD		0.0546	0.0502		mg/3g	☼	92	N5 - 1E5	0	20
Xylenes, Total	KD		0.109	0.0995		mg/3g	☼	91	N6 - 1E5	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		53 - 140
8oluene-d3 (Surr)	92		30 - 12X
4-6roB orluoroF enbene (Surr)	33		: X - 12:
Dif roB orluoroB ethane (Surr)	101		: 5 - 121

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 280-365159/1-A

Matrix: Solid

Analysis Batch: 365407

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365159

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenap7t7ene	KD		0.0050	0.00016	mg/3g		0E/12/1N 19:15	0E/14/1N 14:29	1
Ant7racene	0.000N52	J	0.0050	0.000N2	mg/3g		0E/12/1N 19:15	0E/14/1N 14:29	1
BenzoM[ant7racene	KD		0.0050	0.00090	mg/3g		0E/12/1N 19:15	0E/14/1N 14:29	1
BenzoM[pyrene	KD		0.0050	0.000N4	mg/3g		0E/12/1N 19:15	0E/14/1N 14:29	1
BenzoM[luorant7ene	KD		0.0050	0.0012	mg/3g		0E/12/1N 19:15	0E/14/1N 14:29	1
BenzoM[luorant7ene	KD		0.0050	0.0010	mg/3g		0E/12/1N 19:15	0E/14/1N 14:29	1
C7rysene	KD		0.0050	0.0010	mg/3g		0E/12/1N 19:15	0E/14/1N 14:29	1
DibenzLa,7Ant7racene	KD		0.0050	0.001E	mg/3g		0E/12/1N 19:15	0E/14/1N 14:29	1
(luorant7ene	0.00186	J	0.0050	0.0010	mg/3g		0E/12/1N 19:15	0E/14/1N 14:29	1
(luorene	KD		0.0050	0.0004N	mg/3g		0E/12/1N 19:15	0E/14/1N 14:29	1
In) enoM,2,E-c) [pyrene	KD		0.0050	0.0011	mg/3g		0E/12/1N 19:15	0E/14/1N 14:29	1
Kap7t7alene	KD		0.0050	0.000EE	mg/3g		0E/12/1N 19:15	0E/14/1N 14:29	1
Pyrene	0.00240	J	0.0050	0.0011	mg/3g		0E/12/1N 19:15	0E/14/1N 14:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-zluorof iFhenpl	: 4		/ 9 - 120	0/ 71271: 19115	0/ 71471: 14129	1
y itrof enbene-d5	35		42 - 120	0/ 71271: 19115	0/ 71471: 14129	1
8erFhenpl-d14	: 9		/ 5 - 124	0/ 71271: 19115	0/ 71471: 14129	1

TestAmerica Den&er

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 280-365159/2-A

Matrix: Solid

Analysis Batch: 365407

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365159

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenap7t7ene	0.0E00	0.029E		mg/3g		98	E5 - 120
Ant7racene	0.0E00	0.0299		mg/3g		100	4E - 120
BenzoM[ant7racene	0.0E00	0.0E22		mg/3g		10N	E6 - 120
BenzoM[pyrene	0.0E00	0.0E2N		mg/3g		109	20 - 120
BenzoM[luorant7ene	0.0E00	0.0E22		mg/3g		10N	EN - 120
BenzoM[luorant7ene	0.0E00	0.0E01		mg/3g		100	46 - 120
C7rysene	0.0E00	0.0E24		mg/3g		108	E4 - 120
DibenzLa,7Ant7racene	0.0E00	0.0298		mg/3g		99	20 - 120
(luorant7ene	0.0E00	0.0292		mg/3g		9N	45 - 120
(luorene	0.0E00	0.0E04		mg/3g		101	44 - 120
In) enoM,2,E-c) [pyrene	0.0E00	0.0E06		mg/3g		102	20 - 12N
Kap7t7alene	0.0E00	0.0E1E		mg/3g		104	44 - 120
Pyrene	0.0E00	0.02N9		mg/3g		9E	4E - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-zluorof iFhenpl	31		/ 9 - 120
y itrof enbene-d5	92		42 - 120
8erFhenpl-d14	::		/ 5 - 124

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Lab Sample ID: MB 280-365064/1-A

Matrix: Solid

Analysis Batch: 365146

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365064

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
d RO LC6-C10G	KD		1.2	0.EE	mg/3g		0E/10/1N09:E4	0E/11/1N14:5N	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-8riitluorotoluene	90		:: - 12/	0/ 71071: 09T 4	0/ 71171: 14T 5	1

Lab Sample ID: LCS 280-365064/2-A

Matrix: Solid

Analysis Batch: 365146

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365064

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
d RO LC6-C10G	5.50	5.9N		mg/3g		109	85 - 15E

Surrogate	LCS %Recovery	LCS Qualifier	Limits
a,a,a-8riitluorotoluene	95		:: - 12/

Lab Sample ID: LCSD 280-365064/3-A

Matrix: Solid

Analysis Batch: 365146

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 365064

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
d RO LC6-C10G	5.50	5.99		mg/3g		109	85 - 15E	0	E0

TestAmerica Den&er

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
a,a,a-trinitrotoluene	9/		:: - 12/

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 280-365103/1-B
Matrix: Solid
Analysis Batch: 365426

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 365103

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO LC10-C28G	KD		4.0	0.68	mg/3g	-	0E/10/1N15:45	0E/14/1N18:24	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-8erFhenpl (Surr)	12/	N	49 - 115				0/ 71071: 15745	0/ 71471: 13724	1

Lab Sample ID: LCS 280-365103/2-B
Matrix: Solid
Analysis Batch: 365426

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 365103
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
DRO LC10-C28G	66.N	6E4		mg/3g	-	95	5E - 115
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
o-8erFhenpl (Surr)	12X	N	49 - 115				

Method: 20B - Sodium Adsorption Ratio

Lab Sample ID: MB 280-365121/1-A
Matrix: Solid
Analysis Batch: 365556

Client Sample ID: Method Blank
Prep Type: Soluble
Prep Batch: 365121

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ka	KD		10	10	mg/3g	-	0E/10/1N15:54	0E/14/1N09:4E	10
Ca	KD		2.0	2.0	mg/3g	-	0E/10/1N15:54	0E/14/1N09:4E	10
Ug	KD		2.0	2.0	mg/3g	-	0E/10/1N15:54	0E/14/1N09:4E	10
Sodium Adsorption Ratio	KD		1.2	1.2	Ko k nit	-	0E/10/1N15:54	0E/14/1N09:4E	10

Lab Sample ID: 280-94682-4 DU
Matrix: Solid
Analysis Batch: 365556

Client Sample ID: RC4-HER05-0.25
Prep Type: Soluble
Prep Batch: 365121

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Ka	KD		KD		mg/3g	-	KC	20
Ca	110		1EN	(E	mg/3g	-	21	20
Ug	11		12.9		mg/3g	-	1N	20
Sodium Adsorption Ratio	KD		KD		Ko k nit	-	KC	20

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 280-365093/1-A

Matrix: Solid

Analysis Batch: 365199

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365093

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	KD		1.0	0.10	mg/3g		0E/10/1N 14:20	0E/11/1N04:14	1
Ca) mium	KD		0.50	0.041	mg/3g		0E/10/1N 14:20	0E/11/1N04:14	1
C7romium	0.06ND	J	1.5	0.058	mg/3g		0E/10/1N 14:20	0E/11/1N04:14	1
Zea)	KD		0.90	0.E1	mg/3g		0E/10/1N 14:20	0E/11/1N04:14	1
Boron	2.1E	J	10	0.98	mg/3g		0E/10/1N 14:20	0E/11/1N04:14	1
Selenium	KD		1.5	0.86	mg/3g		0E/10/1N 14:20	0E/11/1N04:14	1
Sil&er	KD		1.0	0.16	mg/3g		0E/10/1N 14:20	0E/11/1N04:14	1
Calcium	18.2	J	50	14	mg/3g		0E/10/1N 14:20	0E/11/1N04:14	1
Copper	KD		2.0	0.22	mg/3g		0E/10/1N 14:20	0E/11/1N04:14	1
Uagnesium	N01	J	20	EN	mg/3g		0E/10/1N 14:20	0E/11/1N04:14	1
Kicf el	KD		4.0	0.1E	mg/3g		0E/10/1N 14:20	0E/11/1N04:14	1
So) ium	KD		500	59	mg/3g		0E/10/1N 14:20	0E/11/1N04:14	1
xinc	KD		E.0	0.40	mg/3g		0E/10/1N 14:20	0E/11/1N04:14	1

Lab Sample ID: LCS 280-365093/2-A

Matrix: Solid

Analysis Batch: 365199

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365093

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Barium	200	194		mg/3g		9N	8N- 112
Ca) mium	10.0	9.59		mg/3g		96	8N- 110
C7romium	20.0	19.0		mg/3g		95	84 - 114
Zea)	50.0	4NE		mg/3g		95	86 - 110
Boron	100	9E.0		mg/3g		9E	80 - 120
Selenium	200	184		mg/3g		92	8E- 110
Sil&er	5.00	5.42		mg/3g		108	8N- 114
Copper	25.0	2E.6		mg/3g		94	88 - 110
Kicf el	50.0	45.9		mg/3g		92	8N- 110
xinc	50.0	49.2		mg/3g		98	N6 - 114

Lab Sample ID: 280-94682-1 MS

Matrix: Solid

Analysis Batch: 365199

Client Sample ID: RC4-HEL02-0.25

Prep Type: Total/NA

Prep Batch: 365093

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Barium	E10		22E	562		mg/3g	☼	111	52 - 159
Ca) mium	0.E8	J (2	11.2	10.2		mg/3g	☼	88	40 - 1E0
C7romium	14	B	22.E	42.4		mg/3g	☼	129	ND - 200
Zea)	14	(2	55.8	61.0		mg/3g	☼	84	ND - 200
Boron	12	B (2	112	11E		mg/3g	☼	90	80 - 120
Selenium	0.86	J (2	22E	188		mg/3g	☼	84	N6 - 104
Sil&er	KD	(2	5.58	5.69		mg/3g	☼	102	N5 - 141
Copper	1E	(2	2N9	EN9		mg/3g	☼	91	EN- 18N
Kicf el	1E	(2	55.8	59.1		mg/3g	☼	8E	61 - 126
xinc	62		55.8	116		mg/3g	☼	98	ND - 200

TestAmerica Den&er

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 280-94682-1 MSD

Matrix: Solid

Analysis Batch: 365199

Client Sample ID: RC4-HEL02-0.25

Prep Type: Total/NA

Prep Batch: 365093

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Barium	E10		1N1	48E		mg/3g	✱	99	52 - 159	15	20
Ca) mium	0.E8	J (2	8.5E	N60	(2	mg/3g	✱	85	40 - 1E0	29	20
C7romium	14	B	1N1	E5.N		mg/3g	✱	1E0	N0 - 200	1N	20
Zea)	14	(2	42.N	4N8	(2	mg/3g	✱	N8	N0 - 200	24	20
Boron	12	B (2	85.E	86.1	(2	mg/3g	✱	86	80 - 120	2N	20
Selenium	0.86	J (2	1N1	1E8	(2	mg/3g	✱	80	N6 - 104	E1	20
Sil&er	KD	(2	4.2N	4.26	(2	mg/3g	✱	100	N5 - 141	29	20
Copper	1E	(2	21.E	E0.8	(2	mg/3g	✱	85	EN - 18N	21	20
Kicf el	1E	(2	42.N	46.4	(2	mg/3g	✱	N8	61 - 126	24	20
xinc	62		42.N	99.8		mg/3g	✱	89	N0 - 200	15	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 280-365003/1-A

Matrix: Solid

Analysis Batch: 365182

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365003

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	KD		0.60	0.051	mg/3g		0E/10/1N 14:20	0E/11/1N 01:58	1

Lab Sample ID: LCS 280-365003/2-A

Matrix: Solid

Analysis Batch: 365182

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365003

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	20.0	1N9		mg/3g		90	8E - 111

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 280-365068/1-A

Matrix: Solid

Analysis Batch: 365174

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365068

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uercury	KD		0.01N	0.0055	mg/3g		0E/10/1N 11:59	0E/10/1N 19:20	1

Lab Sample ID: LCS 280-365068/2-A

Matrix: Solid

Analysis Batch: 365174

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365068

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Uercury	0.41N	0.4E4		mg/3g		104	8N - 111

Lab Sample ID: 280-94682-1 MS

Matrix: Solid

Analysis Batch: 365174

Client Sample ID: RC4-HEL02-0.25

Prep Type: Total/NA

Prep Batch: 365068

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Uercury	0.020	J (2 (1	0.499	0.4E6	(1	mg/3g	✱	8E	8N - 111

TestAmerica Den&er

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Lab Sample ID: 280-94682-1 MSD
Matrix: Solid
Analysis Batch: 365174

Client Sample ID: RC4-HEL02-0.25
Prep Type: Total/NA
Prep Batch: 365068
%Rec. RPD

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Uercury	0.020	J (2 (1	0.54N	0.562	(2	mg/3g	✱	99	8N. 111	25	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 490-413830/1-A
Matrix: Solid
Analysis Batch: 413837

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 413830

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C7romium, 7ev	KD		4.9	2.0	mg/3g		0E/11/1N 16:E2	0E/11/1N20:24	1

Lab Sample ID: LCS1 490-413830/3-A
Matrix: Solid
Analysis Batch: 413837

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 413830
%Rec.

Analyte	Spike Added	LCS1 Result	LCS1 Qualifier	Unit	D	%Rec	Limits
C7romium, 7ev	6E.9	52.1		mg/3g		81	80 - 120

Lab Sample ID: LCSS 490-413830/2-A
Matrix: Solid
Analysis Batch: 413837

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 413830
%Rec.

Analyte	Spike Added	LCSS Result	LCSS Qualifier	Unit	D	%Rec	Limits
C7romium, 7ev	40.1	40.1		mg/3g		100	80 - 120

Lab Sample ID: 280-94682-1 MSI
Matrix: Solid
Analysis Batch: 413837

Client Sample ID: RC4-HEL02-0.25
Prep Type: Total/NA
Prep Batch: 413830
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	Limits
C7romium, 7ev	E.8	J	N1.2	N5.9		mg/3g	✱	101	N5 - 125

Lab Sample ID: 280-94682-1 MSS
Matrix: Solid
Analysis Batch: 413837

Client Sample ID: RC4-HEL02-0.25
Prep Type: Total/NA
Prep Batch: 413830
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	Limits
C7romium, 7ev	E.8	J	44.E	E.8.8		mg/3g	✱	N9	N5 - 125

Lab Sample ID: 280-94682-1 DU
Matrix: Solid
Analysis Batch: 413837

Client Sample ID: RC4-HEL02-0.25
Prep Type: Total/NA
Prep Batch: 413830
RPD

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
C7romium, 7ev	E.8	J	4.29	J	mg/3g	✱	12	20

TestAmerica Den&er

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Method: 9045D - pH

Lab Sample ID: LCS 280-365031/15-A
Matrix: Solid
Analysis Batch: 365074

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH a) j. to 25) eg C	N00	N0		Sk		100	9N- 10E

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

GC/MS VOA

Analysis Batch: 365222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Total/NA	Solid	8260B	365242
280-94682-2	RC4-HEL03-0.25	Total/NA	Solid	8260B	365242
280-94682-3	RC4-HER04-0.25	Total/NA	Solid	8260B	365242
280-94682-4	RC4-HER05-0.25	Total/NA	Solid	8260B	365242
MB 280-365242/3-A	Method Blank	Total/NA	Solid	8260B	365242
LCS 280-365242/1-A	Lab Control Sample	Total/NA	Solid	8260B	365242
280-94682-1 MS	RC4-HEL02-0.25	Total/NA	Solid	8260B	365242
280-94682-1 MSD	RC4-HEL02-0.25	Total/NA	Solid	8260B	365242

Prep Batch: 365242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Total/NA	Solid	5030A	
280-94682-2	RC4-HEL03-0.25	Total/NA	Solid	5030A	
280-94682-3	RC4-HER04-0.25	Total/NA	Solid	5030A	
280-94682-4	RC4-HER05-0.25	Total/NA	Solid	5030A	
MB 280-365242/3-A	Method Blank	Total/NA	Solid	5030A	
LCS 280-365242/1-A	Lab Control Sample	Total/NA	Solid	5030A	
280-94682-1 MS	RC4-HEL02-0.25	Total/NA	Solid	5030A	
280-94682-1 MSD	RC4-HEL02-0.25	Total/NA	Solid	5030A	

GC/MS Semi VOA

Prep Batch: 365159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Total/NA	Solid	3546	
280-94682-2	RC4-HEL03-0.25	Total/NA	Solid	3546	
280-94682-3	RC4-HER04-0.25	Total/NA	Solid	3546	
280-94682-4	RC4-HER05-0.25	Total/NA	Solid	3546	
MB 280-365159/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-365159/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 365407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Total/NA	Solid	8270D SIM	365159
280-94682-2	RC4-HEL03-0.25	Total/NA	Solid	8270D SIM	365159
280-94682-3	RC4-HER04-0.25	Total/NA	Solid	8270D SIM	365159
280-94682-4	RC4-HER05-0.25	Total/NA	Solid	8270D SIM	365159
MB 280-365159/1-A	Method Blank	Total/NA	Solid	8270D SIM	365159
LCS 280-365159/2-A	Lab Control Sample	Total/NA	Solid	8270D SIM	365159

GC VOA

Prep Batch: 365064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Total/NA	Solid	5035	
280-94682-2	RC4-HEL03-0.25	Total/NA	Solid	5035	
280-94682-3	RC4-HER04-0.25	Total/NA	Solid	5035	
280-94682-4	RC4-HER05-0.25	Total/NA	Solid	5035	
MB 280-365064/1-A	Method Blank	Total/NA	Solid	5035	
LCS 280-365064/2-A	Lab Control Sample	Total/NA	Solid	5035	

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

GC VOA (Continued)

Prep Batch: 365064 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 280-365064/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 365146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Total/NA	Solid	8015C	365064
280-94682-2	RC4-HEL03-0.25	Total/NA	Solid	8015C	365064
280-94682-3	RC4-HER04-0.25	Total/NA	Solid	8015C	365064
280-94682-4	RC4-HER05-0.25	Total/NA	Solid	8015C	365064
MB 280-365064/1-A	Method Blank	Total/NA	Solid	8015C	365064
LCS 280-365064/2-A	Lab Control Sample	Total/NA	Solid	8015C	365064
LCSD 280-365064/3-A	Lab Control Sample Dup	Total/NA	Solid	8015C	365064

GC Semi VOA

Prep Batch: 365103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Total/NA	Solid	3546	
280-94682-2	RC4-HEL03-0.25	Total/NA	Solid	3546	
280-94682-3	RC4-HER04-0.25	Total/NA	Solid	3546	
280-94682-4	RC4-HER05-0.25	Total/NA	Solid	3546	
MB 280-365103/1-B	Method Blank	Total/NA	Solid	3546	
LCS 280-365103/2-B	Lab Control Sample	Total/NA	Solid	3546	

Cleanup Batch: 365322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Total/NA	Solid	3630M	365103
280-94682-2	RC4-HEL03-0.25	Total/NA	Solid	3630M	365103
280-94682-3	RC4-HER04-0.25	Total/NA	Solid	3630M	365103
280-94682-4	RC4-HER05-0.25	Total/NA	Solid	3630M	365103
MB 280-365103/1-B	Method Blank	Total/NA	Solid	3630M	365103
LCS 280-365103/2-B	Lab Control Sample	Total/NA	Solid	3630M	365103

Analysis Batch: 365426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Total/NA	Solid	8015C	365322
280-94682-2	RC4-HEL03-0.25	Total/NA	Solid	8015C	365322
280-94682-3	RC4-HER04-0.25	Total/NA	Solid	8015C	365322
280-94682-4	RC4-HER05-0.25	Total/NA	Solid	8015C	365322
MB 280-365103/1-B	Method Blank	Total/NA	Solid	8015C	365322
LCS 280-365103/2-B	Lab Control Sample	Total/NA	Solid	8015C	365322

Metals

Prep Batch: 365003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Total/NA	Solid	3050B	
280-94682-2	RC4-HEL03-0.25	Total/NA	Solid	3050B	
280-94682-3	RC4-HER04-0.25	Total/NA	Solid	3050B	
280-94682-4	RC4-HER05-0.25	Total/NA	Solid	3050B	
MB 280-365003/1-A	Method Blank	Total/NA	Solid	3050B	

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Metals (Continued)

Prep Batch: 365003 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-365003/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 365068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Total/NA	Solid	7471A	
280-94682-2	RC4-HEL03-0.25	Total/NA	Solid	7471A	
280-94682-3	RC4-HER04-0.25	Total/NA	Solid	7471A	
280-94682-4	RC4-HER05-0.25	Total/NA	Solid	7471A	
MB 280-365068/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 280-365068/2-A	Lab Control Sample	Total/NA	Solid	7471A	
280-94682-1 MS	RC4-HEL02-0.25	Total/NA	Solid	7471A	
280-94682-1 MSD	RC4-HEL02-0.25	Total/NA	Solid	7471A	

Prep Batch: 365093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Total/NA	Solid	3050B	
280-94682-2	RC4-HEL03-0.25	Total/NA	Solid	3050B	
280-94682-3	RC4-HER04-0.25	Total/NA	Solid	3050B	
280-94682-4	RC4-HER05-0.25	Total/NA	Solid	3050B	
MB 280-365093/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 280-365093/2-A	Lab Control Sample	Total/NA	Solid	3050B	
280-94682-1 MS	RC4-HEL02-0.25	Total/NA	Solid	3050B	
280-94682-1 MSD	RC4-HEL02-0.25	Total/NA	Solid	3050B	

Prep Batch: 365121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Soluble	Solid	20B	
280-94682-2	RC4-HEL03-0.25	Soluble	Solid	20B	
280-94682-3	RC4-HER04-0.25	Soluble	Solid	20B	
280-94682-4	RC4-HER05-0.25	Soluble	Solid	20B	
MB 280-365121/1-A	Method Blank	Soluble	Solid	20B	
280-94682-4 DU	RC4-HER05-0.25	Soluble	Solid	20B	

Analysis Batch: 365174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Total/NA	Solid	7471A	365068
280-94682-2	RC4-HEL03-0.25	Total/NA	Solid	7471A	365068
280-94682-3	RC4-HER04-0.25	Total/NA	Solid	7471A	365068
280-94682-4	RC4-HER05-0.25	Total/NA	Solid	7471A	365068
MB 280-365068/1-A	Method Blank	Total/NA	Solid	7471A	365068
LCS 280-365068/2-A	Lab Control Sample	Total/NA	Solid	7471A	365068
280-94682-1 MS	RC4-HEL02-0.25	Total/NA	Solid	7471A	365068
280-94682-1 MSD	RC4-HEL02-0.25	Total/NA	Solid	7471A	365068

Analysis Batch: 365182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Total/NA	Solid	6020A	365003
280-94682-2	RC4-HEL03-0.25	Total/NA	Solid	6020A	365003
280-94682-3	RC4-HER04-0.25	Total/NA	Solid	6020A	365003
280-94682-4	RC4-HER05-0.25	Total/NA	Solid	6020A	365003
MB 280-365003/1-A	Method Blank	Total/NA	Solid	6020A	365003

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Metals (Continued)

Analysis Batch: 365182 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-365003/2-A	Lab Control Sample	Total/NA	Solid	6020A	365003

Analysis Batch: 365199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Total/NA	Solid	6010C	365093
280-94682-2	RC4-HEL03-0.25	Total/NA	Solid	6010C	365093
280-94682-3	RC4-HER04-0.25	Total/NA	Solid	6010C	365093
280-94682-4	RC4-HER05-0.25	Total/NA	Solid	6010C	365093
MB 280-365093/1-A	Method Blank	Total/NA	Solid	6010C	365093
LCS 280-365093/2-A	Lab Control Sample	Total/NA	Solid	6010C	365093
280-94682-1 MS	RC4-HEL02-0.25	Total/NA	Solid	6010C	365093
280-94682-1 MSD	RC4-HEL02-0.25	Total/NA	Solid	6010C	365093

Analysis Batch: 365556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Soluble	Solid	20B	365121
280-94682-2	RC4-HEL03-0.25	Soluble	Solid	20B	365121
280-94682-3	RC4-HER04-0.25	Soluble	Solid	20B	365121
280-94682-4	RC4-HER05-0.25	Soluble	Solid	20B	365121
MB 280-365121/1-A	Method Blank	Soluble	Solid	20B	365121
280-94682-4 DU	RC4-HER05-0.25	Soluble	Solid	20B	365121

General Chemistry

Leach Batch: 365031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Soluble	Solid	DI Leach	
280-94682-2	RC4-HEL03-0.25	Soluble	Solid	DI Leach	
280-94682-3	RC4-HER04-0.25	Soluble	Solid	DI Leach	
280-94682-4	RC4-HER05-0.25	Soluble	Solid	DI Leach	
LCS 280-365031/15-A	Lab Control Sample	Soluble	Solid	DI Leach	

Analysis Batch: 365066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Total/NA	Solid	Moisture	
280-94682-2	RC4-HEL03-0.25	Total/NA	Solid	Moisture	
280-94682-3	RC4-HER04-0.25	Total/NA	Solid	Moisture	
280-94682-4	RC4-HER05-0.25	Total/NA	Solid	Moisture	

Analysis Batch: 365074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Soluble	Solid	9045D	365031
280-94682-2	RC4-HEL03-0.25	Soluble	Solid	9045D	365031
280-94682-3	RC4-HER04-0.25	Soluble	Solid	9045D	365031
280-94682-4	RC4-HER05-0.25	Soluble	Solid	9045D	365031
LCS 280-365031/15-A	Lab Control Sample	Soluble	Solid	9045D	365031

Prep Batch: 413830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Total/NA	Solid	3060A	

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

General Chemistry (Continued)

Prep Batch: 413830 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-2	RC4-HEL03-0.25	Total/NA	Solid	3060A	
280-94682-3	RC4-HER04-0.25	Total/NA	Solid	3060A	
280-94682-4	RC4-HER05-0.25	Total/NA	Solid	3060A	
MB 490-413830/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 490-413830/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSS 490-413830/2-A	Lab Control Sample	Total/NA	Solid	3060A	
280-94682-1 MSI	RC4-HEL02-0.25	Total/NA	Solid	3060A	
280-94682-1 MSS	RC4-HEL02-0.25	Total/NA	Solid	3060A	
280-94682-1 DU	RC4-HEL02-0.25	Total/NA	Solid	3060A	

Analysis Batch: 413837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Total/NA	Solid	7196A	413830
280-94682-2	RC4-HEL03-0.25	Total/NA	Solid	7196A	413830
280-94682-3	RC4-HER04-0.25	Total/NA	Solid	7196A	413830
280-94682-4	RC4-HER05-0.25	Total/NA	Solid	7196A	413830
MB 490-413830/1-A	Method Blank	Total/NA	Solid	7196A	413830
LCSI 490-413830/3-A	Lab Control Sample	Total/NA	Solid	7196A	413830
LCSS 490-413830/2-A	Lab Control Sample	Total/NA	Solid	7196A	413830
280-94682-1 MSI	RC4-HEL02-0.25	Total/NA	Solid	7196A	413830
280-94682-1 MSS	RC4-HEL02-0.25	Total/NA	Solid	7196A	413830
280-94682-1 DU	RC4-HEL02-0.25	Total/NA	Solid	7196A	413830

Prep Batch: 414104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Soluble	Solid	Sat Paste Ext	
280-94682-2	RC4-HEL03-0.25	Soluble	Solid	Sat Paste Ext	
280-94682-3	RC4-HER04-0.25	Soluble	Solid	Sat Paste Ext	
280-94682-4	RC4-HER05-0.25	Soluble	Solid	Sat Paste Ext	

Analysis Batch: 414149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Soluble	Solid	9050A	414104
280-94682-2	RC4-HEL03-0.25	Soluble	Solid	9050A	414104
280-94682-3	RC4-HER04-0.25	Soluble	Solid	9050A	414104
280-94682-4	RC4-HER05-0.25	Soluble	Solid	9050A	414104
LCS 490-414149/3	Lab Control Sample	Total/NA	Solid	9050A	
LCSD 490-414149/4	Lab Control Sample Dup	Total/NA	Solid	9050A	

Analysis Batch: 414484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Total/NA	Solid	7196A	
280-94682-2	RC4-HEL03-0.25	Total/NA	Solid	7196A	
280-94682-3	RC4-HER04-0.25	Total/NA	Solid	7196A	
280-94682-4	RC4-HER05-0.25	Total/NA	Solid	7196A	

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Client Sample ID: RC4-HEL02-0.25

Lab Sample ID: 280-94682-1

Date Collected: 03/09/17 10:00

Matrix: Solid

Date Received: 03/09/17 18:32

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	20B			1.0 g	50 mL	365121	03/10/17 15:54	SEJ	TAL DEN
Soluble	Analysis	20B		10			365556	03/14/17 09:58	CML	TAL DEN
Soluble	Leach	DI Leach			40.19 g	40 mL	365031	03/10/17 07:34	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	365074	03/10/17 09:50	IEU	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	414104	03/13/17 13:41	AJK	TAL NSH
Soluble	Analysis	9050A		1			414149	03/13/17 14:00	JAB	TAL NSH
Total/NA	Analysis	Moisture		1			365066	03/10/17 09:36	A1D	TAL DEN

Client Sample ID: RC4-HEL02-0.25

Lab Sample ID: 280-94682-1

Date Collected: 03/09/17 10:00

Matrix: Solid

Date Received: 03/09/17 18:32

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	5030A			5.023 g	5 mL	365242	03/13/17 12:16	GPM	TAL DEN
Total/NA	Analysis	8260B		1	5 g	5 mL	365222	03/13/17 13:03	GPM	TAL DEN
Total/NA	Prep	3546			30.9 g	1 mL	365159	03/12/17 19:15	DFB1	TAL DEN
Total/NA	Analysis	8270D SIM		1			365407	03/14/17 20:30	KGV	TAL DEN
Total/NA	Prep	5035			11.651 g	5 mL	365064	03/09/17 10:00	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	365146	03/11/17 16:11	KDK	TAL DEN
Total/NA	Prep	3546			30.6 g	1 mL	365103	03/10/17 15:45	DFB1	TAL DEN
Total/NA	Cleanup	3630M			1 mL	1 mL	365322	03/13/17 20:40	ELV	TAL DEN
Total/NA	Analysis	8015C		1			365426	03/14/17 20:03	KDK	TAL DEN
Total/NA	Prep	3050B			1.131 g	100 mL	365093	03/10/17 14:20	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365199	03/11/17 04:19	SJS	TAL DEN
Total/NA	Prep	3050B			1.019 g	100 mL	365003	03/10/17 14:20	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			365182	03/11/17 02:36	LMT	TAL DEN
Total/NA	Prep	7471A			0.54 g	50 mL	365068	03/10/17 11:59	TEB	TAL DEN
Total/NA	Analysis	7471A		1			365174	03/10/17 19:24	TEB	TAL DEN
Total/NA	Prep	3060A			2.5387 g	500 mL	413830	03/11/17 16:32	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	413837	03/11/17 20:24	DJP	TAL NSH
Total/NA	Analysis	7196A		1			414484	03/15/17 08:29	SOG	TAL NSH

Client Sample ID: RC4-HEL03-0.25

Lab Sample ID: 280-94682-2

Date Collected: 03/09/17 11:30

Matrix: Solid

Date Received: 03/09/17 18:32

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	20B			1.0 g	50 mL	365121	03/10/17 15:54	SEJ	TAL DEN
Soluble	Analysis	20B		10			365556	03/14/17 10:01	CML	TAL DEN
Soluble	Leach	DI Leach			40.13 g	40 mL	365031	03/10/17 07:34	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	365074	03/10/17 09:50	IEU	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	414104	03/13/17 13:41	AJK	TAL NSH
Soluble	Analysis	9050A		1			414149	03/13/17 14:00	JAB	TAL NSH

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Client Sample ID: RC4-HEL03-0.25

Lab Sample ID: 280-94682-2

Date Collected: 03/09/17 11:30

Matrix: Solid

Date Received: 03/09/17 18:32

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			365066	03/10/17 09:36	A1D	TAL DEN

Client Sample ID: RC4-HEL03-0.25

Lab Sample ID: 280-94682-2

Date Collected: 03/09/17 11:30

Matrix: Solid

Date Received: 03/09/17 18:32

Percent Solids: 85.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			5.115 g	5 mL	365242	03/13/17 12:16	GPM	TAL DEN
Total/NA	Analysis	8260B		1	5 g	5 mL	365222	03/13/17 14:05	GPM	TAL DEN
Total/NA	Prep	3546			30.1 g	1 mL	365159	03/12/17 19:15	DFB1	TAL DEN
Total/NA	Analysis	8270D SIM		1			365407	03/14/17 15:20	KGV	TAL DEN
Total/NA	Prep	5035			15.157 g	5 mL	365064	03/09/17 11:30	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	365146	03/11/17 16:35	KDK	TAL DEN
Total/NA	Prep	3546			30.3 g	1 mL	365103	03/10/17 15:45	DFB1	TAL DEN
Total/NA	Cleanup	3630M			1 mL	1 mL	365322	03/13/17 20:40	ELV	TAL DEN
Total/NA	Analysis	8015C		1			365426	03/14/17 20:28	KDK	TAL DEN
Total/NA	Prep	3050B			1.381 g	100 mL	365093	03/10/17 14:20	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365199	03/11/17 04:31	SJS	TAL DEN
Total/NA	Prep	3050B			1.418 g	100 mL	365003	03/10/17 14:20	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			365182	03/11/17 02:39	LMT	TAL DEN
Total/NA	Prep	7471A			0.54 g	50 mL	365068	03/10/17 11:59	TEB	TAL DEN
Total/NA	Analysis	7471A		1			365174	03/10/17 19:31	TEB	TAL DEN
Total/NA	Prep	3060A			2.5766 g	500 mL	413830	03/11/17 16:32	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	413837	03/11/17 20:24	DJP	TAL NSH
Total/NA	Analysis	7196A		1			414484	03/15/17 08:29	SOG	TAL NSH

Client Sample ID: RC4-HER04-0.25

Lab Sample ID: 280-94682-3

Date Collected: 03/09/17 12:20

Matrix: Solid

Date Received: 03/09/17 18:32

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	20B			1.0 g	50 mL	365121	03/10/17 15:54	SEJ	TAL DEN
Soluble	Analysis	20B		10			365556	03/14/17 10:04	CML	TAL DEN
Soluble	Leach	DI Leach			40.42 g	40 mL	365031	03/10/17 07:34	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	365074	03/10/17 09:50	IEU	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	414104	03/13/17 13:41	AJK	TAL NSH
Soluble	Analysis	9050A		1			414149	03/13/17 14:00	JAB	TAL NSH
Total/NA	Analysis	Moisture		1			365066	03/10/17 09:36	A1D	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Client Sample ID: RC4-HER04-0.25

Lab Sample ID: 280-94682-3

Date Collected: 03/09/17 12:20

Matrix: Solid

Date Received: 03/09/17 18:32

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	5030A			5.015 g	5 mL	365242	03/13/17 12:16	GPM	TAL DEN
Total/NA	Analysis	8260B		1	5 g	5 mL	365222	03/13/17 14:26	GPM	TAL DEN
Total/NA	Prep	3546			30.7 g	1 mL	365159	03/12/17 19:15	DFB1	TAL DEN
Total/NA	Analysis	8270D SIM		1			365407	03/14/17 15:46	KGV	TAL DEN
Total/NA	Prep	5035			12.706 g	5 mL	365064	03/09/17 12:20	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	365146	03/11/17 17:00	KDK	TAL DEN
Total/NA	Prep	3546			30.0 g	1 mL	365103	03/10/17 15:45	DFB1	TAL DEN
Total/NA	Cleanup	3630M			1 mL	1 mL	365322	03/13/17 20:40	ELV	TAL DEN
Total/NA	Analysis	8015C		1			365426	03/14/17 20:53	KDK	TAL DEN
Total/NA	Prep	3050B			1.106 g	100 mL	365093	03/10/17 14:20	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365199	03/11/17 04:33	SJS	TAL DEN
Total/NA	Prep	3050B			1.481 g	100 mL	365003	03/10/17 14:20	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			365182	03/11/17 02:43	LMT	TAL DEN
Total/NA	Prep	7471A			0.58 g	50 mL	365068	03/10/17 11:59	TEB	TAL DEN
Total/NA	Analysis	7471A		1			365174	03/10/17 19:33	TEB	TAL DEN
Total/NA	Prep	3060A			2.5193 g	500 mL	413830	03/11/17 16:32	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	413837	03/11/17 20:24	DJP	TAL NSH
Total/NA	Analysis	7196A		1			414484	03/15/17 08:29	SOG	TAL NSH

Client Sample ID: RC4-HER05-0.25

Lab Sample ID: 280-94682-4

Date Collected: 03/09/17 13:05

Matrix: Solid

Date Received: 03/09/17 18:32

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	20B			1.0 g	50 mL	365121	03/10/17 15:54	SEJ	TAL DEN
Soluble	Analysis	20B		10			365556	03/14/17 10:07	CML	TAL DEN
Soluble	Leach	DI Leach			40.02 g	40 mL	365031	03/10/17 07:34	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	365074	03/10/17 09:50	IEU	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	414104	03/13/17 13:41	AJK	TAL NSH
Soluble	Analysis	9050A		1			414149	03/13/17 14:00	JAB	TAL NSH
Total/NA	Analysis	Moisture		1			365066	03/10/17 09:36	A1D	TAL DEN

Client Sample ID: RC4-HER05-0.25

Lab Sample ID: 280-94682-4

Date Collected: 03/09/17 13:05

Matrix: Solid

Date Received: 03/09/17 18:32

Percent Solids: 79.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			5.166 g	5 mL	365242	03/13/17 12:16	GPM	TAL DEN
Total/NA	Analysis	8260B		1	5 g	5 mL	365222	03/13/17 14:46	GPM	TAL DEN
Total/NA	Prep	3546			31.4 g	1 mL	365159	03/12/17 19:15	DFB1	TAL DEN
Total/NA	Analysis	8270D SIM		1			365407	03/14/17 16:12	KGV	TAL DEN
Total/NA	Prep	5035			18.05 g	5 mL	365064	03/09/17 13:05	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	365146	03/11/17 17:25	KDK	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Client Sample ID: RC4-HER05-0.25

Lab Sample ID: 280-94682-4

Date Collected: 03/09/17 13:05

Matrix: Solid

Date Received: 03/09/17 18:32

Percent Solids: 79.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.7 g	1 mL	365103	03/10/17 15:45	DFB1	TAL DEN
Total/NA	Cleanup	3630M			1 mL	1 mL	365322	03/13/17 20:40	ELV	TAL DEN
Total/NA	Analysis	8015C		1			365426	03/14/17 22:07	KDK	TAL DEN
Total/NA	Prep	3050B			1.149 g	100 mL	365093	03/10/17 14:20	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365199	03/11/17 04:36	SJS	TAL DEN
Total/NA	Prep	3050B			1.083 g	100 mL	365003	03/10/17 14:20	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			365182	03/11/17 02:47	LMT	TAL DEN
Total/NA	Prep	7471A			0.55 g	50 mL	365068	03/10/17 11:59	TEB	TAL DEN
Total/NA	Analysis	7471A		1			365174	03/10/17 19:40	TEB	TAL DEN
Total/NA	Prep	3060A			2.5154 g	500 mL	413830	03/11/17 16:32	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	413837	03/11/17 20:24	DJP	TAL NSH
Total/NA	Analysis	7196A		1			414484	03/15/17 08:29	SOG	TAL NSH

Laboratory References:

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

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Laboratory: TestAmerica Denver

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
A2LA	DoD ELAP		2907.01	10-31-17
A2LA	ISO/IEC 17025		2907.01	10-31-17
Alabama	State Program	4	40730	09-30-12 *
Alaska (UST)	State Program	10	UST-30	04-05-18
Arizona	State Program	9	AZ0713	12-20-17
Arkansas DEQ	State Program	6	88-0687	06-01-17
California	State Program	9	2513	01-08-18 *
Connecticut	State Program	1	PH-0686	09-30-18
Florida	NELAP	4	E87667	06-30-17
Georgia	State Program	4	N/A	01-08-18
Illinois	NELAP	5	200017	04-30-18
Iowa	State Program	7	370	12-01-18 *
Kansas	NELAP	7	E-10166	04-30-17 *
Louisiana	NELAP	6	02096	06-30-17
Maine	State Program	1	CO0002	03-03-19
Minnesota	NELAP	5	8-999-405	12-31-17 *
Nevada	State Program	9	CO0026	07-31-17
New Hampshire	NELAP	1	205310	04-28-17
New Jersey	NELAP	2	CO004	06-30-17
New York	NELAP	2	11964	04-01-18
North Carolina (WW/SW)	State Program	4	358	12-31-17
North Dakota	State Program	8	R-034	01-09-18
Oklahoma	State Program	6	8614	08-31-17
Oregon	NELAP	10	4025	01-08-18
Pennsylvania	NELAP	3	68-00664	07-31-17
South Carolina	State Program	4	72002001	01-09-17 *
Texas	NELAP	6	T104704183-16-12	09-30-17
USDA	Federal		P330-16-00397	12-15-19
Utah	NELAP	8	CO00026	07-31-17
Virginia	NELAP	3	460232	06-14-17
Washington	State Program	10	C583	08-02-17
West Virginia DEP	State Program	3	354	11-30-17
Wisconsin	State Program	5	999615430	08-31-17
Wyoming (UST)	A2LA	8	2907.01	10-31-17

Laboratory: TestAmerica Nashville

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
A2LA	A2LA		NA: NELAP & A2LA	12-31-17
A2LA	ISO/IEC 17025		0453.07	12-31-17
Alaska (UST)	State Program	10	UST-087	07-24-17
Arizona	State Program	9	AZ0473	05-05-17
Arkansas DEQ	State Program	6	88-0737	04-25-17
California	State Program	9	2938	10-31-18
Connecticut	State Program	1	PH-0220	12-31-17
Florida	NELAP	4	E87358	06-30-17
Georgia	State Program	4	N/A	12-31-17
Illinois	NELAP	5	200010	12-09-17
Iowa	State Program	7	131	04-01-18

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

TestAmerica Denver

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-1

Laboratory: TestAmerica Nashville (Continued)

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
Kansas	NELAP	7	E-10229	10-31-17
Kentucky (UST)	State Program	4	19	06-30-17
Kentucky (WW)	State Program	4	90038	12-31-17
Louisiana	NELAP	6	30613	06-30-17
Maine	State Program	1	TN00032	11-03-17
Maryland	State Program	3	316	03-31-18
Massachusetts	State Program	1	M-TN032	06-30-17
Minnesota	NELAP	5	047-999-345	12-31-17
Mississippi	State Program	4	N/A	06-30-17
Montana (UST)	State Program	8	NA	02-24-20
Nevada	State Program	9	TN00032	07-31-17
New Hampshire	NELAP	1	2963	10-09-17
New Jersey	NELAP	2	TN965	06-30-17
New York	NELAP	2	11342	03-31-17 *
North Carolina (WW/SW)	State Program	4	387	12-31-17
North Dakota	State Program	8	R-146	06-30-17
Ohio VAP	State Program	5	CL0033	07-10-17
Oklahoma	State Program	6	9412	08-31-17
Oregon	NELAP	10	TN200001	04-27-17
Pennsylvania	NELAP	3	68-00585	06-30-17
Rhode Island	State Program	1	LAO00268	12-30-17
South Carolina	State Program	4	84009 (001)	02-18-17 *
South Carolina (Do Not Use - DW)	State Program	4	84009 (002)	12-16-17
Tennessee	State Program	4	2008	02-23-20
Texas	NELAP	6	T104704077	08-31-17
USDA	Federal		P330-13-00306	12-01-19
Utah	NELAP	8	TN00032	07-31-17
Virginia	NELAP	3	460152	06-14-17
Washington	State Program	10	C789	07-19-17
West Virginia DEP	State Program	3	219	02-28-18
Wisconsin	State Program	5	998020430	08-31-17
Wyoming (UST)	A2LA	8	453.07	12-31-17

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

TestAmerica Denver

TestAmerica Laboratories, Inc.

Form No. CA-C-WI-002, Rev. 4.11, dated 1/24/2017

TestAmerica Denver

4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record



TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)		Sampler:	Lab P/N:	Carrier Tracking No(s):	COC No:								
Client Contact:		Phone:	Ide, Jamie N		280-390310.1								
Shipping/Receiving:		E-Mail:	jamie.ide@testamericainc.com	State of Origin:	Page 1 of 1								
Company:		Accreditations Required (See note):		Job #:	280-94682-1								
Address:		Due Date Requested:	Analysis Requested										
2960 Foster Creighton Drive,		3/15/2017											
City:	Nashville	TAT Requested (days):											
State, Zip:	TN, 37204	PO #:											
Phone:	615-726-0177(Tel) 615-726-3404(Fax)	WO #:											
Email:		Project #:											
Project Name:	Stantec CVX - Rangely, CO	SSOW#:											
Site:													
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (G=grab)	Matrix (W=water, S=solid, C=comp, B=BT-Trace, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	7196A_CR3/ Trivalent Chromium (CrIII)	29B_EC/Sat/Paste_Prep Electrical Conductivity	7196A/3060A Hexavalent Chromium (CrVI)	Total Number of Containers	Special Instructions/Note:	
RC4-HEL02-0.25 (280-94682-1)	3/9/17	10:00	Mountain	Solid		X	X	X			1		
RC4-HEL03-0.25 (280-94682-2)	3/9/17	11:30	Mountain	Solid		X	X	X			1		
RC4-HER04-0.25 (280-94682-3)	3/9/17	12:20	Mountain	Solid		X	X	X			1		
RC4-HER05-0.25 (280-94682-4)	3/9/17	13:05	Mountain	Solid		X	X	X			1		
<p>Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other institutions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.</p>													
Possible Hazard Identification													
<p>Unconfirmed</p> <p>Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2 _____</p> <p>Special Instructions/QC Requirements: _____</p>													
<p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</p> <p><input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p>													
<p>Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____</p>													
Relinquished by:		Date/Time:	3/10/17	1525	Company:	TAB	Received by:	_____	Date/Time:	3-11-17	0945	Company:	TRN
Relinquished by:		Date/Time:			Company:		Received by:		Date/Time:			Company:	
Relinquished by:		Date/Time:			Company:		Received by:		Date/Time:			Company:	
Custody Seals Intact:		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 5.3									
Δ Yes Δ No													

COOLER RECEIPT FORM

Cooler Received/Opened On 3/11/2017 @ 0945

Time Samples Removed From Cooler 1245 Time Samples Placed In Storage _____ (2 Hour Window)

1. Tracking # 1895 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID_160406069_ pH Strip Lot _____ Chlorine Strip Lot _____

2. Temperature of rep. sample or temp blank when opened: 5.3 Degrees Celsius

3. If Item #2 temperatures is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES NO NA

If yes, how many and where: NA

5. Were the seals intact, signed, and dated correctly? YES NO NA

6. Were custody papers inside cooler? YES NO NA

I certify that I opened the cooler and answered questions 1-6 (initial) sh

7. Were custody seals on containers: YES NO and Intact YES NO NA

Were these signed and dated correctly? YES NO NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES NO NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES NO NA

12. Did all container labels and tags agree with custody papers? YES NO NA

13a. Were VOA vials received? YES NO NA

b. Was there any observable headspace present in any VOA vial? YES NO NA

14. Was there a Trip Blank in this cooler? YES NO NA If multiple coolers, sequence # _____

I certify that I unloaded the cooler and answered questions 7-14 (initial) DA

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES NO NA

b. Did the bottle labels indicate that the correct preservatives were used YES NO NA

16. was residual chlorine present? YES NO NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) DA

17. Were custody papers properly filled out (ink, signed, etc)? YES NO NA

18. Did you sign the custody papers in the appropriate place? YES NO NA

19. Were correct containers used for the analysis requested? YES NO NA

20. Was sufficient amount of sample sent in each container? YES NO NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) DA

I certify that I attached a label with the unique LIMS number to each container (initial) DA

21. Were there Non-Conformance issues at login? YES NO Was a NCM generated? YES NO # _____

COOLER RECEIPT FORM



280-94682 Chain of Custody

Cooler Received/Opened On 3/14/2017 @ 0950

Time Samples Removed From Cooler 1410 Time Samples Placed In Storage 1519 (2 Hour Window)

1. Tracking # 2207 (last 4 digits, FedEx) Courier: FedEx
IR Gun ID 17960353 pH Strip Lot N/A Chlorine Strip Lot N/A

2. Temperature of rep. sample or temp blank when opened: 3.0 Degrees Celsius

3. If Item #2 temperatures is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES...NO...NA YES

If yes, how many and where: 1 Front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA YES

6. Were custody papers inside cooler? YES...NO...NA YES

I certify that I opened the cooler and answered questions 1-6 (initial) ger

7. Were custody seals on containers: YES NO and Intact YES...NO...NA YES

Were these signed and dated correctly? YES...NO...NA YES

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA YES

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA YES

12. Did all container labels and tags agree with custody papers? YES...NO...NA YES

13a. Were VOA vials received? YES...NO...NA YES

b. Was there any observable headspace present in any VOA vial? YES...NO...NA YES

14. Was there a Trip Blank in this cooler? YES...NO...NA NO If multiple coolers, sequence # 1

I certify that I unloaded the cooler and answered questions 7-14 (initial) ger

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA YES

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA YES

16. was residual chlorine present? YES...NO...NA YES

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) ger

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA YES

18. Did you sign the custody papers in the appropriate place? YES...NO...NA YES

19. Were correct containers used for the analysis requested? YES...NO...NA YES

20. Was sufficient amount of sample sent in each container? YES...NO...NA YES

I certify that I entered this project into LIMS and answered questions 17-20 (initial) ger

I certify that I attached a label with the unique LIMS number to each container (initial) ger

21. Were there Non-Conformance issues at login? YES...NO...NA NO Was a NCM generated? YES...NO...NA NO

TestAmerica Denver

4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

Loc: 280

94682



TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)		Sampler:	Lab PM:	CC No:						
Client Contact:		Phone:	Id: Jamie N	230-390538.1						
Shipping/Receiving		E-Mail: jamie.n@testamericainc.com		Page: 1 of 1						
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note):		Job #: 280-94682-1						
Address: 2960 Foster Creighton Drive,		Due Date Requested:	Preservation Codes:							
City: Nashville		3/15/2017	A - HCL M - Hexane							
State, Zip: TN, 37204		TAI Requested (days):	B - NaOH N - None							
Phone: 615-726-0177(Tel) 615-726-3404(Fax)		PO #:	C - Zn Acetate O - AsnO2							
Email:		WO #:	D - Nitric Acid P - Na2O4S							
Project Name: Stantec CVX - Rangely, CO		Project #:	E - NaHSO4 Q - Na2SO3							
Site: SSOV#:		28016458	F - MeOH R - Na2S2O3							
			G - Anchorer S - H2SO4							
			H - Ascorbic Acid T - TSP Dodecylhydrate							
			I - Ice U - Acetone							
			J - DI Water V - MCAA							
			K - EDTA W - pH 4-5							
			L - BDA Z - other (specify)							
			Other:							
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=soil, B=biomass, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Total Number of containers	Special Instructions/Note:
RC4-HIE02-0.25 (280-94682-1)	3/9/17	10:00	Mountain	Solid		X	X	7196A/3060A Hexavalent Chromium (CrVI)	1	add'l volume for EC 29B 9131317
RC4-HIE03-0.25 (280-94682-2)	3/9/17	11:30	Mountain	Solid		X	X	29B_EC/SatPaste_Prep Electrical Conductivity	1	
RC4-HIER04-0.25 (280-94682-3)	3/9/17	12:20	Mountain	Solid		X	X		1	
RC4-HIER05-0.25 (280-94682-4)	3/9/17	13:05	Mountain	Solid		X	X		1	
<p>Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/methods being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.</p>										
<p>Possible Hazard Identification</p> <p>Unconfirmed</p> <p>Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2</p> <p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</p> <p>Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months</p>										
<p>Empty Kit Relinquished by: Date: Time: Method of Shipment:</p> <p>Relinquished by: <i>Tabereta</i> Date/Time: 3/13/17 15:15 Company: TAB Received by: <i>Oliver</i> Date/Time: 3/14/17 09:50 Company: TAN</p> <p>Relinquished by: Date/Time: Company: Received by: Date/Time: Company:</p> <p>Custody Seals Intact: Custody Seal No.: Cooler Temperature(s) °C and Other Remarks: 3.0</p>										

Client: Stantec Consulting Corp.

Job Number: 280-94682-1

Login Number: 94682

List Source: TestAmerica Denver

List Number: 1

Creator: Woodworth, Sean P

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	FIELD BLANK
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-94682-1

Login Number: 94682

List Number: 2

Creator: Armstrong, Daniel

List Source: TestAmerica Nashville

List Creation: 03/11/17 02:03 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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	5.3C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver

4955 Yarrow Street

Arvada, CO 80002

Tel: (303)736-0100

TestAmerica Job ID: 280-94682-2

Client Project/Site: Stantec CVX - Rangely, CO

For:

Stantec Consulting Corp.

8770 Guion Road

Suite B

Indianapolis, Indiana 46268

Attn: Susan Hall



Authorized for release by:

3/21/2017 12:40:59 PM

Jamie Ide, Project Manager I

(303)736-0126

jamie.ide@testamericainc.com

LINKS

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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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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-2

Qualifiers

GC Semi 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.

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, 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)

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-2

Job ID: 280-94682-2

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Stantec Consulting Corp.
Project: Stantec CVX - Rangely, CO
Report Number: 280-94682-2

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 on 3/9/2017 6:32 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.1° C.

The chain of custody requests DRO, ORO, and GRO analyses by Method 8015B as quoted by TestAmerica. However, the laboratory will perform these analyses by method 8015C as the more current method version is also compatible with the additionally requested silica gel clean-up pre-prep method.

The 8015C DRO/ORO (No clean up) analysis will be found in this report; all other analyses requested on the chain of custody will be reported under a separate cover (280-94862-1).

DIESEL RANGE ORGANICS

The initial aliquot and surrogate aliquot used for extraction of the following sample was split between two extraction vessels with the routine volume of solvent added to each vessel: RC4-HER05-0.25 (280-94682-4). After the extraction, the extracts from both vessels were combined and concentrated. This was done due to prior analyst experience.

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

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-2

Client Sample ID: RC4-HEL02-0.25

Lab Sample ID: 280-94682-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
DRO (C10-C28)	4.2		4.1	0.70	mg/Kg	1		✱	8015C	Total/NA
ORO (C20-C38)	6.5	J	12	4.0	mg/Kg	1		✱	8015C	Total/NA

Client Sample ID: RC4-HEL03-0.25

Lab Sample ID: 280-94682-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
DRO (C10-C28)	2.5	J	4.7	0.79	mg/Kg	1		✱	8015C	Total/NA
ORO (C20-C38)	5.6	J	14	4.5	mg/Kg	1		✱	8015C	Total/NA

Client Sample ID: RC4-HER04-0.25

Lab Sample ID: 280-94682-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
DRO (C10-C28)	5.5		4.6	0.78	mg/Kg	1		✱	8015C	Total/NA
ORO (C20-C38)	10	J	14	4.5	mg/Kg	1		✱	8015C	Total/NA

Client Sample ID: RC4-HER05-0.25

Lab Sample ID: 280-94682-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
DRO (C10-C28)	2.5	J	4.7	0.80	mg/Kg	1		✱	8015C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Method Summary

1. Objective: To determine the concentration of the analyte in the sample.
2. Principle: The method is based on the use of a standard solution and a comparison of the peak areas.

TestAmerica Job ID: 280-94682-2

Method	Method Description	Protocol	Laboratory
80V51	Not applicable, rual ics Ssil u G1jFID -Modified (Diesel Exhaust, rual ics)	nO 846	TAL DEN

Protocol References:

nO 846 = "Test Methods For Evaluation of Petroleum Products and Petroleum Fluids" Third Edition November 1986 API d Its Updates

Laboratory References:

TAL DEN = TestAmerica Delaware 4955 Yarrow Street Arvada, CO 80002 TEL (303) 736-0000

Sample Summary

1 of 1: nta1 tec 1 ol sSO1 u 1 orgp
. roPctjnite: nta1 tec 1 / V - Xal ueCy 1,

TestAmerica Job ID: 280-94682-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-94682-0	X14-HEL02-0p25	no	03j09j07 00:00	03j09j07 08:32
280-94682-2	X14-HEL03-0p25	no	03j09j07 00:30	03j09j07 08:32
280-94682-3	X14-HEX04-0p25	no	03j09j07 02:20	03j09j07 08:32
280-94682-4	X14-HEX05-0p25	no	03j09j07 08:05	03j09j07 08:32

Client Sample Results

1 Client Sample ID: RC4-HEL02-0.25
 Date Collected: 03/09/17 10:00
 Date Received: 03/09/17 18:32

TestAmerica Job ID: 280-94682-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-HEL02-0.25

Date Collected: 03/09/17 10:00

Date Received: 03/09/17 18:32

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	4.2		40	0.0	μg/g	*	03/15/17 10:45	03/17/17 14:58	1
ORO (C20-C38)	6.5	J	0.2	4.0	μg/g	*	03/15/17 10:45	03/17/17 14:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	76		49 - 115				03/15/17 10:45	03/17/17 14:58	1

Lab Sample ID: 280-94682-1

Matrix: Solid

Percent Solids: 87.9

Client Sample ID: RC4-HEL03-0.25

Date Collected: 03/09/17 11:30

Date Received: 03/09/17 18:32

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	2.5	J	40	0.9	μg/g	*	03/15/17 10:45	03/17/17 15:27	1
ORO (C20-C38)	5.6	J	0.4	4.0	μg/g	*	03/15/17 10:45	03/17/17 15:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	66		49 - 115				03/15/17 10:45	03/17/17 15:27	1

Lab Sample ID: 280-94682-2

Matrix: Solid

Percent Solids: 85.1

Client Sample ID: RC4-HER04-0.25

Date Collected: 03/09/17 12:20

Date Received: 03/09/17 18:32

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	5.5		40	0.8	μg/g	*	03/15/17 10:45	03/17/17 15:56	1
ORO (C20-C38)	10	J	0.4	4.0	μg/g	*	03/15/17 10:45	03/17/17 15:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	72		49 - 115				03/15/17 10:45	03/17/17 15:56	1

Lab Sample ID: 280-94682-3

Matrix: Solid

Percent Solids: 85.0

Client Sample ID: RC4-HER05-0.25

Date Collected: 03/09/17 13:05

Date Received: 03/09/17 18:32

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	2.5	J	40	0.80	μg/g	*	03/15/17 10:45	03/17/17 16:25	1
X, 31 20-1 N85	7.0		0.4	4.0	μg/g	*	03/15/17 10:45	03/17/17 16:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	62		49 - 115				03/15/17 10:45	03/17/17 16:25	1

Lab Sample ID: 280-94682-4

Matrix: Solid

Percent Solids: 79.0

TestAmerica Del ver

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTPH1 (49-115)
280-94682-1	RC4-HEL02-0.25	76
280-94682-2	RC4-HEL03-0.25	66
280-94682-3	RC4-HER04-0.25	72
280-94682-4	RC4-HER05-0.25	62
LCS 280-365546/2-A	Lab Control Sample	77
MB 280-365546/1-A	Method Blank	75

Surrogate Legend

OTPH = o-Terphenyl (Surr)

QC Sample Results

1 of 1: nta tec 1 ol sSO u 1 orgp
 . roectjnite: nta tec 1 / V - Xal ueo 1 ,

TestAmerica Job ID: 280-94682-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 280-365546/1-A

Matrix: Solid

Analysis Batch: 365789

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365546

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DX, Q (0-128)	ND		4p0	0p68	mujKu	-	03j(5j(7 (0:45	03j(7j(7 06:45	(
, X, Q 20-138)	ND		(2	3p9	mujKu	-	03j(5j(7 (0:45	03j(7j(7 06:45	(
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	75		49 - 115				03/15/17 10:45	03/17/17 06:45	1

Lab Sample ID: LCS 280-365546/2-A

Matrix: Solid

Analysis Batch: 365789

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365546

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
DX, Q (0-128)	66p7	59p5		mujKu	-	89	53 - ((5
Surrogate	%Recovery	LCS Qualifier	Limits				
o-Terphenyl (Surr)	77		49 - 115				

TestAmerica Del ver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94682-2

GC Semi VOA

Prep Batch: 365546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Total/NA	Solid	3546	
280-94682-2	RC4-HEL03-0.25	Total/NA	Solid	3546	
280-94682-3	RC4-HER04-0.25	Total/NA	Solid	3546	
280-94682-4	RC4-HER05-0.25	Total/NA	Solid	3546	
MB 280-365546/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-365546/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 365789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94682-1	RC4-HEL02-0.25	Total/NA	Solid	8015C	365546
280-94682-2	RC4-HEL03-0.25	Total/NA	Solid	8015C	365546
280-94682-3	RC4-HER04-0.25	Total/NA	Solid	8015C	365546
280-94682-4	RC4-HER05-0.25	Total/NA	Solid	8015C	365546
MB 280-365546/1-A	Method Blank	Total/NA	Solid	8015C	365546
LCS 280-365546/2-A	Lab Control Sample	Total/NA	Solid	8015C	365546

Lab Chronicle

Client: Stantec Consulting Corp.
 1 roectjSite: Stantec C/ V - XangelRyC,

TestAmerica Job ID: 280-94682-2

Client Sample ID: RC4-HEL02-0.25

Date Collected: 03/09/17 10:00

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-1

Matrix: Solid

vercent SolidT: 87.9

v rep BPpe	Aatch BPpe	Aatch Method	Run	Dil Factor	Initial s mount	Final s mount	Aatch Number	v prepared or s nalPzed	s nalPTt	Lab
TotaljNA	1 rep	CB46			000 g	5 mL	063346	0Q53j57 50:43	JXA	TAL DEN
TotaljNA	AnalRsis	8053C		5			063789	0Q57j57 54:38	DAW	TAL DEN

Client Sample ID: RC4-HEL03-0.25

Date Collected: 03/09/17 11:30

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-2

Matrix: Solid

vercent SolidT: 85.1

v rep BPpe	Aatch BPpe	Aatch Method	Run	Dil Factor	Initial s mount	Final s mount	Aatch Number	v prepared or s nalPzed	s nalPTt	Lab
TotaljNA	1 rep	CB46			00.0g	5 mL	063346	0Q53j57 50:43	JXA	TAL DEN
TotaljNA	AnalRsis	8053C		5			063789	0Q57j57 53:27	DAW	TAL DEN

Client Sample ID: RC4-HER04-0.25

Date Collected: 03/09/17 12:20

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-3

Matrix: Solid

vercent SolidT: 85.0

v rep BPpe	Aatch BPpe	Aatch Method	Run	Dil Factor	Initial s mount	Final s mount	Aatch Number	v prepared or s nalPzed	s nalPTt	Lab
TotaljNA	1 rep	CB46			00.3 g	5 mL	063346	0Q53j57 50:43	JXA	TAL DEN
TotaljNA	AnalRsis	8053C		5			063789	0Q57j57 53:36	DAW	TAL DEN

Client Sample ID: RC4-HER05-0.25

Date Collected: 03/09/17 13:05

Date Received: 03/09/17 18:32

Lab Sample ID: 280-94682-4

Matrix: Solid

vercent SolidT: 79.0

v rep BPpe	Aatch BPpe	Aatch Method	Run	Dil Factor	Initial s mount	Final s mount	Aatch Number	v prepared or s nalPzed	s nalPTt	Lab
TotaljNA	1 rep	CB46			02.5 g	5 mL	063346	0Q53j57 50:43	JXA	TAL DEN
TotaljNA	AnalRsis	8053C		5			063789	0Q57j57 56:23	DAW	TAL DEN

LaboratorP ReferenceT:

TAL DEN = TestAmerica Denvery4933 Yarrow StreetyArvadayC, 80002yTEL (00)706-0500

Certification Summary

Client: Stantec Consulting Corp.
 Project Site: Stantec C/ V - Xangel R/C,

TestAmerica Job ID: 280-94682-2

Laboratory: TestAmerica Denver

All certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2NA	DoD ENA1		290L.07	70-37-7L
A2NA	IS, jIEC 7L025		290L.07	70-37-7L
Alabama	State 1 rogram	4	40L30	09-30-72 *
Alaska (UST)	State 1 rogram	70	UST-30	04-05-7L
Arizona	State 1 rogram	9	AZ0L73	72-20-7L
Arkansas DEQ	State 1 rogram	6	88-068L	06-07-7L
California	State 1 rogram	9	2573	07-08-78 *
Connecticut	State 1 rogram	7	1H-0686	09-30-78
Florida	h ENA1	4	E8L66L	06-30-7L
Georgia	State 1 rogram	4	hJA	07-08-78
Illinois	h ENA1	5	20007L	04-30-7L
Iowa	State 1 rogram	L	3L0	72-07-78 *
Kansas	h ENA1	L	E-70766	04-30-7L
Louisiana	h ENA1	6	02096	06-30-7L
Maine	State 1 rogram	7	C, 0002	03-03-79
Minnesota	h ENA1	5	8-999-405	72-37-7L *
Nebraska	State 1 rogram	9	C, 0026	0L-37-7L
New Hampshire	h ENA1	7	205370	04-28-7L
New Jersey	h ENA1	2	C, 004	06-30-7L
New York	h ENA1	2	77964	04-07-7L
North Carolina (WWJ/SW)	State 1 rogram	4	358	72-37-7L
North Dakota	State 1 rogram	8	X-034	07-09-78
Oklahoma	State 1 rogram	6	8674	08-37-7L
Oregon	h ENA1	70	4025	07-08-78
Pennsylvania	h ENA1	3	68-00664	0L-37-7L
South Carolina	State 1 rogram	4	L2002007	07-09-7L *
Texas	h ENA1	6	T704L04783-76-72	09-30-7L
USDA	Federal		1330-76-0039L	72-75-79
Utah	h ENA1	8	C, 00026	0L-37-7L
Virginia	h ENA1	3	460232	06-74-7L
Washington	State 1 rogram	70	C583	08-02-7L
West Virginia DE1	State 1 rogram	3	354	77-30-7L
Wisconsin	State 1 rogram	5	999675430	08-37-7L
Wyoming (UST)	A2NA	8	290L.07	70-37-7L

* Certification renewal pending - certification considered valid.

TestAmerica Denver

Arvada, CO 80002-4517
phone 303.736.0100 fax 303.431.7171

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc.

[illegible]

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-94682-2

Login Number: 94682

List Source: TestAmerica Denver

List Number: 1

Creator: Woodworth, Sean P

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	FIELD BLANK
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver

4955 Yarrow Street

Arvada, CO 80002

Tel: (303)736-0100

TestAmerica Job ID: 280-94768-1

Client Project/Site: Stantec CVX - Rangely, CO

Revision: 1

For:

Stantec Consulting Corp.

2000 South Colorado Blvd

Suite 2-300

Denver, Colorado 80222

Attn: Ms. Bethany Lucente



Authorized for release by:

4/5/2017 4:28:52 PM

Jamie Ide, Project Manager I

(303)736-0126

jamie.ide@testamericainc.com

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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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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

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.
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

GC/MS Semi 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.
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
B	Compound was found in the blank and sample.

GC 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

GC Semi 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.
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

Metals

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

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance 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, 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

TestAmerica Denver

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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)

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

Job ID: 280-94768-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Stantec Consulting Corp.
Project: Stantec CVX - Rangely, CO
Report Number: 280-94768-1

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.

REVISION - 4/5/17

Per client request 3/31/17, the ORO originally requested on the chain of custody was removed from the analytical report.

RECEIPT

The samples were received on 3/11/2017 8:05 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.1° C and 0.1° C.

The requested Electrical Conductivity (EC) and 7196A Trivalent and Hexavalent Chromium analyses were performed by TestAmerica's Nashville laboratory.

The requested 8015C DRO/ORO (No Silica Gel Cleanup) will be reported under a separate cover (280-94768-2); all other analyses requested on the chain of custody will be found in this report.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

4-Bromofluorobenzene and/or Toluene-d8 failed the surrogate recovery criteria high for RC4-CLU09-0.25 (280-94768-4), RC4-CLU11-0.25 (280-94768-6), and RC4-DUP01-0.25 (280-94768-7). 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. The surrogate recoveries are calculated from diluted samples and in some cases are diluted below reportable limits.

Samples RC4-CLU07-0.25 (280-94768-2)[10X], RC4-CLU09-0.25 (280-94768-4)[10X], RC4-CLU11-0.25 (280-94768-6)[10X] and RC4-DUP01-0.25 (280-94768-7)[10X] required dilution prior to analysis due to the nature of the sample matrix. The reporting limits have been adjusted accordingly.

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

SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM)

Anthracene, Fluoranthene and Pyrene were detected in method blank MB 280-365159/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

2-Fluorobiphenyl, Nitrobenzene-d5 and/or Terphenyl-d14 failed the surrogate recovery criteria for RC4-CLU07-0.25 (280-94768-2), RC4-CLU09-0.25 (280-94768-4), RC4-CLU11-0.25 (280-94768-6) and RC4-DUP01-0.25 (280-94768-7). 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. The surrogate recoveries are calculated from diluted samples and in some cases are diluted below reportable limits.

Samples RC4-CLU07-0.25 (280-94768-2)[100X], RC4-CLU07-0.25 (280-94768-2)[40X], RC4-CLU09-0.25 (280-94768-4)[100X], RC4-CLU09-0.25 (280-94768-4)[40X], RC4-CLU11-0.25 (280-94768-6)[20X], RC4-DUP01-0.25 (280-94768-7)[100X] and

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

Job ID: 280-94768-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

RC4-DUP01-0.25 (280-94768-7)[40X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

GASOLINE RANGE ORGANICS (GRO)

a,a,a-Trifluorotoluene failed the surrogate recovery criteria high for RC4-CLU07-0.25 (280-94768-2), RC4-CLU09-0.25 (280-94768-4), RC4-CLU11-0.25 (280-94768-6), and RC4-DUP01-0.25 (280-94768-7). 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. The surrogate recoveries are calculated from diluted samples and in some cases are diluted below reportable limits.

Samples RC4-CLU07-0.25 (280-94768-2)[200X], RC4-CLU09-0.25 (280-94768-4)[100X], RC4-CLU11-0.25 (280-94768-6)[10X] and RC4-DUP01-0.25 (280-94768-7)[200X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

DIESEL RANGE ORGANICS - With Silica Gel Clean up

Due to the nature of the sample matrix, the following samples could not be concentrated to the final method required volume: RC4-CLU09-0.25 (280-94768-4) and RC4-DUP01-0.25 (280-94768-7). The reporting limits (RLs) are adjusted accordingly. The adjusted volume was 2 mL.

o-Terphenyl failed the surrogate recovery criteria high for RC4-CLU09-0.25 (280-94768-4) and RC4-DUP01-0.25 (280-94768-7). 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. The surrogate recoveries are calculated from diluted samples and in some cases are diluted below reportable limits.

Samples RC4-CLU09-0.25 (280-94768-4)[10X], RC4-CLU11-0.25 (280-94768-6)[2X] and RC4-DUP01-0.25 (280-94768-7)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

SODIUM ABSORPTION RATIO

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

TOTAL METALS (ICP)

Barium, Boron, Calcium, Magnesium and Sodium were detected in method blank MB 280-365211/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Cadmium, Silver and Selenium exceeded the RPD limit for the MSD of sample RC4-HEL06-0.25MSD (280-94768-1). The associated LCS was in control and demonstrates that operating procedures were in control. No further action was required.

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

METALS (ICPMS)

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

TOTAL MERCURY (CVAA)

The following samples could not be thoroughly homogenized prior to sub-sampling was performed due to the nature of the sample matrix: RC4-HEL06-0.25 (280-94768-1), RC4-CLU07-0.25 (280-94768-2), RC4-CLU09-0.25 (280-94768-4), RC4-CLU11-0.25 (280-94768-6), RC4-DUP01-0.25 (280-94768-7), (280-94768-A-1 MS) and (280-94768-A-1 MSD). It was noted that the samples were clay.

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

HEXAVALENT CHROMIUM

Chromium, hex failed the recovery criteria low for the MS of sample RC4-HEL08-0.25MS (280-94768-3). The associated LCS/LCSS was in

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

Job ID: 280-94768-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

control and demonstrates that operating procedures were in control. No further action was required.

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

TRIVALENT CHROMIUM

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

PH

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

ELECTRICAL CONDUCTIVITY

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

PERCENT SOLIDS

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

Detection Summary

LineSt: utaStec I oSsgntiSp I or. P
j ro/ectWrite: utaStec I XR - y aSpen Q B

TestAmerica Job ID: 280-94618-C

Client Sample ID: RC4-HEL06-0.25

Lab Sample ID: 280-94768-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
zeSkeSe	0R02C	J	0R046	0R0044	mpVp	C	✱	8210z	TotalNA	
TorgeSe	0R028	J	0R046	0R0013	mpVp	C	✱	8210z	TotalNA	
m-R, reSe E. -R, reSe	0R0Ch	J	0R024	0R0098	mpVp	C	✱	8210z	TotalNA	
R, reSesOTotan	0R0Ch	J	0R046	0R0038	mpVp	C	✱	8210z	TotalNA	
Na. 7t7areSe	0R006h	J	0R039	0R00h9	mpVp	C	✱	8260D uIF	TotalNA	
Dy B & CO-I 28M	2R	J	4R	0R0h	mpVp	C	✱	80C3I	TotalNA	
Na	9C		00	00	mpVp	00		20z	uorgbre	
I a	32		2R	2R	mpVp	00		20z	uorgbre	
F p	8R		2R	2R	mpVp	00		20z	uorgbre	
uo[igm A] sor. tioS y atio	hR		0R	0R	No] Sit	00		20z	uorgbre	
zarigm	Ch0 z		0R4	0R86	mpVp	C	✱	10C0I	TotalNA	
I a[migm	0R2 J f 2		0R2	0R04	mpVp	C	✱	10C0I	TotalNA	
I 7romigm	C3		0R	0R49	mpVp	C	✱	10C0I	TotalNA	
Lea[	C3		0R1	0R21	mpVp	C	✱	10C0I	TotalNA	
zoroS	Ch z		8R	0R2	mpVp	C	✱	10C0I	TotalNA	
I arcigm	22000 z		42	C2	mpVp	C	✱	10C0I	TotalNA	
I o. . er	Ch		0R	0R8	mpVp	C	✱	10C0I	TotalNA	
F apSesigm	9300 z		06	hR	mpVp	C	✱	10C0I	TotalNA	
NicGen	C3		hR	0R0C	mpVp	C	✱	10C0I	TotalNA	
uo[igm	230 J z f 2		420	30	mpVp	C	✱	10C0I	TotalNA	
(iSc	12		2R	0R0h	mpVp	C	✱	10C0I	TotalNA	
ArseSic	6R		0R3h	0R43	mpVp	C	✱	1020A	TotalNA	
Fercgr,	0R024		0R02h	0R063	mpVp	C	✱	646CA	TotalNA	
I 7romigmOre)	3R J		1R	2R	mpVp	C	✱	6C91A	TotalNA	
I 7romigmOridareSt	9R		1R	2R	mpVp	C	✱	6C91A	TotalNA	
. U a[/Pto 23 [ep I	8R Uf		0R	0R	u]	C		9043D	uorgbre	
Tem. eratgre	20R Uf		0R	0R	Deprees I	C		9043D	uorgbre	
k nectricanl oS[gctidit,	0R08		0R00	0R00	mm7osVcm	C		9030A	uorgbre	

Client Sample ID: RC4-CLU07-0.25

Lab Sample ID: 280-94768-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
zeSkeSe	00		2R	0R4C	mpVp	00	✱	8210z	TotalNA	
kt7, rbeSkeSe	09		2R	0R0C	mpVp	00	✱	8210z	TotalNA	
TorgeSe	4C		2R	0R03	mpVp	00	✱	8210z	TotalNA	
m-R, reSe E. -R, reSe	81		2R	0R0C	mpVp	00	✱	8210z	TotalNA	
o-R, reSe	h4		0R	0R02	mpVp	00	✱	8210z	TotalNA	
R, reSesOTotan	C20		2R	0R02	mpVp	00	✱	8210z	TotalNA	
zeSkoZwrgoraSt7eSe	0RCh J		0R24	0R039	mpVp	40	✱	8260D uIF	TotalNA	
I 7r, seSe	0R		0R24	0R049	mpVp	40	✱	8260D uIF	TotalNA	
f rgoreSe	0R		0R24	0R02h	mpVp	40	✱	8260D uIF	TotalNA	
j , reSe	0R3 z		0R24	0R034	mpVp	40	✱	8260D uIF	TotalNA	
Na. 7t7areSe - DL	C2		0R0C	0R040	mpVp	000	✱	8260D uIF	TotalNA	
Hy B & I-I COM	6800		240	14	mpVp	200	✱	80C3I	TotalNA	
Na	86		00	00	mpVp	00		20z	uorgbre	
I a	h00		2R	2R	mpVp	00		20z	uorgbre	
F p	36		2R	2R	mpVp	00		20z	uorgbre	
uo[igm A] sor. tioS y atio	0R		0R	0R	No] Sit	00		20z	uorgbre	
zarigm	000 z		0R9	0R92	mpVp	C	✱	10C0I	TotalNA	
I a[migm	0R0 J		0R4	0R0h1	mpVp	C	✱	10C0I	TotalNA	

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TestAmerica DeSder

Detection Summary

LineSt: utaStec I oSsgntiSp I or. P
j ro/ectWrite: utaStec I XR - y aSpn Q B

TestAmerica Job ID: 280-94618-C

Client Sample ID: RC4-CLU07-0.25 (Continued)

Lab Sample ID: 280-94768-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
I 7romigm	C2		0F0	0F03C	mpV5p	C	*	10C0I	TotalNA
Lea[	C2		0F80	0F26	mpV5p	C	*	10C0I	TotalNA
zoroS	00 z		8F0	0F86	mpV5p	C	*	10C0I	TotalNA
I antigm	C9000 z		44	C2	mpV5p	C	*	10C0I	TotalNA
I o. . er	0C		0F8	0F09	mpV5p	C	*	10C0I	TotalNA
F apSesigm	8100 z		08	hF0	mpV5p	C	*	10C0I	TotalNA
NicGen	C2		hF3	0F02	mpV5p	C	*	10C0I	TotalNA
uo[igm	200 J z		440	32	mpV5p	C	*	10C0I	TotalNA
(iSc	3C		2F0	0F03	mpV5p	C	*	10C0I	TotalNA
ArseSic	3F0		0F04	0F034	mpV5p	C	*	1020A	TotalNA
F ercgr,	0F0C6 J		0F022	0F060	mpV5p	C	*	646CA	TotalNA
I 7romigmO7e)	3F0 J		1F0	2F0	mpV5p	C	*	6C91A	TotalNA
I 7romigmQridareSt	1F2		1F0	2F0	mpV5p	C	*	6C91A	TotalNA
. U a[/Pto 23 [ep I	8F3 Uf		0F0	0F0	u]	C		9043D	uorgbre
Tem. eratgre	2C09 Uf		0F0	0F0	Deprees I	C		9043D	uorgbre
k nectricanl oS[gctidit,	0F08		0F000	0F000	mm7osVcm	C		9030A	uorgbre

Client Sample ID: RC4-HEL08-0.25

Lab Sample ID: 280-94768-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
z eSKeSe	0F0h4 J		0F039	0F0031	mpV5p	C	*	8210z	TotalNA
kt7, rbeSKeSe	0F0C1 J		0F039	0F0069	mpV5p	C	*	8210z	TotalNA
TorgeSe	0F012		0F039	0F0082	mpV5p	C	*	8210z	TotalNA
m-R, reSe E. -R, reSe	0F032		0F0h0	0F0C2	mpV5p	C	*	8210z	TotalNA
o-R, reSe	0F024 J		0F0h0	0F0062	mpV5p	C	*	8210z	TotalNA
R, reSesOTotan	0F061		0F039	0F0062	mpV5p	C	*	8210z	TotalNA
Na. 7t7areSe	0F026 J		0F031	0F00h1	mpV5p	C	*	8260D uIF	TotalNA
Dy B & 00-I 28M	4F3		4F2	0F02	mpV5p	C	*	80C3I	TotalNA
Na	h80		00	00	mpV5p	00		20z	uorgbre
I a	96		2F0	2F0	mpV5p	00		20z	uorgbre
F p	20		2F0	2F0	mpV5p	00		20z	uorgbre
uo[igm A[sor. tioS y atio	9F0		0F2	0F2	No] Sit	00		20z	uorgbre
zarigm	C20 z		0F06	0F00	mpV5p	C	*	10C0I	TotalNA
I a[migm	0F2C J		0F08	0F040	mpV5p	C	*	10C0I	TotalNA
I 7romigm	C4		0F3	0F031	mpV5p	C	*	10C0I	TotalNA
Lea[	C4		0F86	0F00	mpV5p	C	*	10C0I	TotalNA
zoroS	0C z		9F0	0F03	mpV5p	C	*	10C0I	TotalNA
I antigm	2h000 z		48	C4	mpV5p	C	*	10C0I	TotalNA
I o. . er	Ch		0F0	0F2C	mpV5p	C	*	10C0I	TotalNA
F apSesigm	00000 z		09	hF0	mpV5p	C	*	10C0I	TotalNA
NicGen	Ch		hF0	0F0h	mpV5p	C	*	10C0I	TotalNA
uo[igm	330 z		480	36	mpV5p	C	*	10C0I	TotalNA
(iSc	36		2F0	0F08	mpV5p	C	*	10C0I	TotalNA
ArseSic	6F2		0F09	0F04C	mpV5p	C	*	1020A	TotalNA
F ercgr,	0F0Ch J		0F02h	0F064	mpV5p	C	*	646CA	TotalNA
I 7romigmO7e)	6F0 f C		3F0	2F0	mpV5p	C	*	6C91A	TotalNA
I 7romigmQridareSt	1F0		3F0	2F0	mpV5p	C	*	6C91A	TotalNA
. U a[/Pto 23 [ep I	9F0 Uf		0F0	0F0	u]	C		9043D	uorgbre
Tem. eratgre	2C09 Uf		0F0	0F0	Deprees I	C		9043D	uorgbre
k nectricanl oS[gctidit,	0F04		0F000	0F000	mm7osVcm	C		9030A	uorgbre

T7is DetectioS ugmmar, [oes Sot iScrg[e ra[ioc7emicantest resgrtsP

TestAmerica DeSder

Detection Summary

LineSt: utaStec I oSsgntiSp I or. P
j ro/ectWrite: utaStec I XR - y aSpn Q B

TestAmerica Job ID: 280-94618-C

Client Sample ID: RC4-CLU09-0.25

Lab Sample ID: 280-94768-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
zeSkeSe	1F		hF	0F16	mpVp	C		*	8210z	TotalNA
kt7, rbeSkeSe	C9		hF	0F3C	mpVp	C		*	8210z	TotalNA
TorgeSe	h1		hF	0F38	mpVp	C		*	8210z	TotalNA
m-R, reSe E . -R, reSe	89		hF	CF	mpVp	C		*	8210z	TotalNA
o-R, reSe	h6		CF	0F32	mpVp	C		*	8210z	TotalNA
R, reSesOTotan	Ch0		hF	0F32	mpVp	C		*	8210z	TotalNA
zeSkoZwrgoraSt7eSe	0F064	J	0F21	0F012	mpVp	40		*	8260D uIF	TotalNA
I 7r, seSe	CF		0F21	0F03C	mpVp	40		*	8260D uIF	TotalNA
f rgoreSe	CF		0F21	0F024	mpVp	40		*	8260D uIF	TotalNA
j , reSe	0F11	z	0F21	0F031	mpVp	40		*	8260D uIF	TotalNA
Na. 7t7areSe - DL	C0		0F14	0F042	mpVp	C00		*	8260D uIF	TotalNA
Hy B & I-I COM	3000		C20	hh	mpVp	C00		*	80C3I	TotalNA
Dy B & CO-I 28M	20000		2C0	h3	mpVp	C		*	80C3I	TotalNA
Na	Ch0		C0	C0	mpVp	C			20z	uorgbre
I a	4h0		2F	2F	mpVp	C			20z	uorgbre
F p	89		2F	2F	mpVp	C			20z	uorgbre
uo[igm A[sor. tioSy atio	CF		CF	CF	No] Sit	C			20z	uorgbre
zarigm	9C	z	CF	0F0C	mpVp	C		*	10C0I	TotalNA
I a[migm	0F06	J	0F3C	0F042	mpVp	C		*	10C0I	TotalNA
I 7romigm	C2		CF	0F010	mpVp	C		*	10C0I	TotalNA
Lea[	C2		0F02	0F02	mpVp	C		*	10C0I	TotalNA
zoroS	C0	z	C0	CF	mpVp	C		*	10C0I	TotalNA
I amigm	C9000	z	3C	C4	mpVp	C		*	10C0I	TotalNA
I o. . er	CC		2FC	0F22	mpVp	C		*	10C0I	TotalNA
F apSesigm	8300	z	2C	hF	mpVp	C		*	10C0I	TotalNA
NicGen	CC		4FC	0F04	mpVp	C		*	10C0I	TotalNA
uo[igm	230	J z	3C0	1C	mpVp	C		*	10C0I	TotalNA
(iSc	49		hFC	0F4C	mpVp	C		*	10C0I	TotalNA
ArseSic	3F		0F34	0F043	mpVp	C		*	1020A	TotalNA
F erggr,	0F0C2	J	0F021	0F0083	mpVp	C		*	646CA	TotalNA
I 7romigmCFe)	1F2	J	1F3	2F1	mpVp	C		*	6C91A	TotalNA
I 7romigmQridareSt	3F3	J	1F3	2F1	mpVp	C		*	6C91A	TotalNA
. U a[/Pto 23 [ep I	8F	Uf	0FC	0FC	u]	C			9043D	uorgbre
Tem. eratgre	22FC	Uf	CF	CF	Deprees I	C			9043D	uorgbre
k rectricaln[oS[gctidit,	0F3h		0F0C0	0F0C0	mm7osVm	C			9030A	uorgbre

Client Sample ID: RC4-HEL10-0.25

Lab Sample ID: 280-94768-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
zeSkeSe	0F0C9	J	0F048	0F0043	mpVp	C		*	8210z	TotalNA
kt7, rbeSkeSe	0F0C3	J	0F048	0F0014	mpVp	C		*	8210z	TotalNA
TorgeSe	0F0h9	J	0F048	0F0011	mpVp	C		*	8210z	TotalNA
m-R, reSe E . -R, reSe	0F039		0F024	0F0C0	mpVp	C		*	8210z	TotalNA
o-R, reSe	0F0hC		0F024	0F0039	mpVp	C		*	8210z	TotalNA
R, reSesOTotan	0F090		0F048	0F0039	mpVp	C		*	8210z	TotalNA
zeSkoZaxSt7raceSe	0F0091	J	0F03h	0F0091	mpVp	C		*	8260D uIF	TotalNA
zeSkoZax , reSe	0F0C4	J	0F03h	0F0069	mpVp	C		*	8260D uIF	TotalNA
zeSkoZwrgoraSt7eSe	0F029	J	0F03h	0F0C0	mpVp	C		*	8260D uIF	TotalNA
zeSkoZwrgoraSt7eSe	0F0C4	J	0F03h	0F0C0	mpVp	C		*	8260D uIF	TotalNA
I 7r, seSe	0F0h2	J	0F03h	0F0C0	mpVp	C		*	8260D uIF	TotalNA

T7is DetectioS ugmmar, [oes Sot iScrg[e ra[ioc7emicantest resgrtsP

TestAmerica DeSder

Detection Summary

LineSt: utaStec I oSsgntiSp I or. P
j ro/ectWrite: utaStec I XR - y aSpn Q B

TestAmerica Job ID: 280-94618-C

Client Sample ID: RC4-HEL10-0.25 (Continued)

Lab Sample ID: 280-94768-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
f ngoraSt7eSe	0R02C	J z	0R03h	0R00C	mpVp	C	*		8260D uIF	TotalNA
f ngoreSe	0R00Ch	J	0R03h	0R0030	mpVp	C	*		8260D uIF	TotalNA
IS[eSo2020-c[x , reSe	0R02h	J	0R03h	0R00C2	mpVp	C	*		8260D uIF	TotalNA
Na. 7t7areSe	0R0C4		0R03h	0R00h3	mpVp	C	*		8260D uIF	TotalNA
j , reSe	0R00hC	J z	0R03h	0R00C2	mpVp	C	*		8260D uIF	TotalNA
Dy B & CO-I 28M	CO		4R	0R0	mpVp	C	*		80C3I	TotalNA
Na	h1		CO	CO	mpVp	CO			20z	uorgbre
I a	210		2R	2R	mpVp	CO			20z	uorgbre
F p	30		2R	2R	mpVp	CO			20z	uorgbre
zarigm	C20	z	0R8	0R0	mpVp	C	*		10C0I	TotalNA
I a[migm	0R6	J	0R9	0R40	mpVp	C	*		10C0I	TotalNA
I 7romigm	C2		CR	0R36	mpVp	C	*		10C0I	TotalNA
Lea[	C2		0R8	0R0	mpVp	C	*		10C0I	TotalNA
zoroS	CO	z	9R	0R1	mpVp	C	*		10C0I	TotalNA
I arcigm	CO00	z	49	C4	mpVp	C	*		10C0I	TotalNA
I o. . er	CO		2R	0R2C	mpVp	C	*		10C0I	TotalNA
F apSesigm	6300	z	20	hR	mpVp	C	*		10C0I	TotalNA
NicGen	C2		hR	0R1	mpVp	C	*		10C0I	TotalNA
uo[igm	400	J z	490	38	mpVp	C	*		10C0I	TotalNA
(iSc	49		2R	0R9	mpVp	C	*		10C0I	TotalNA
ArseSic	1R		0R3C	0R4h	mpVp	C	*		1020A	TotalNA
F ercgr,	0R0C8	J	0R0C9	0R01h	mpVp	C	*		646CA	TotalNA
I 7romigmO(e)	3R		3R	2R	mpVp	C	*		6C91A	TotalNA
I 7romigmOridareSt	1R		3R	2R	mpVp	C	*		6C91A	TotalNA
. U a[/Pto 23 [ep I	9R	Uf	0R	0R	u]	C			9043D	uorgbre
Tem. eratgre	2CR	Uf	CR	CR	Deprees I	C			9043D	uorgbre
k nectricanl oS[gctidit,	0R48		0R0C0	0R0C0	mm7osVcm	C			9030A	uorgbre

Client Sample ID: RC4-CLU11-0.25

Lab Sample ID: 280-94768-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
zeSKeSe	2R	J	2R	0R2	mpVp	CO	*		8210z	TotalNA
kt7, rbeSKeSe	1R		2R	0R1C	mpVp	CO	*		8210z	TotalNA
TorgeSe	C2		2R	0R1	mpVp	CO	*		8210z	TotalNA
m-R, reSe E. -R, reSe	h0		2R	0R2	mpVp	CO	*		8210z	TotalNA
o-R, reSe	C2		CR	0R2	mpVp	CO	*		8210z	TotalNA
R, reSesOTotan	42		2R	0R2	mpVp	CO	*		8210z	TotalNA
I 7r, seSe	0R2h		0R2	0R24	mpVp	20	*		8260D uIF	TotalNA
f ngoreSe	0R1C		0R2	0R0C	mpVp	20	*		8260D uIF	TotalNA
Na. 7t7areSe	2R		0R2	0R069	mpVp	20	*		8260D uIF	TotalNA
j , reSe	0R0C	J z	0R2	0R26	mpVp	20	*		8260D uIF	TotalNA
Hy B & 1-I COM	280		CO	hR	mpVp	CO	*		80C3I	TotalNA
Dy B & CO-I 28M	Ch00		9R	CR	mpVp	2	*		80C3I	TotalNA
Na	Ch0		CO	CO	mpVp	CO			20z	uorgbre
I a	h90		2R	2R	mpVp	CO			20z	uorgbre
F p	68		2R	2R	mpVp	CO			20z	uorgbre
uo[igm A[sor. tioSy atio	CR		CR	CR	No] Sit	CO			20z	uorgbre
zarigm	CO	z	0R6	0R90	mpVp	C	*		10C0I	TotalNA
I a[migm	0R9	J	0R4h	0R1h	mpVp	C	*		10C0I	TotalNA
I 7romigm	CO		CR	0R30	mpVp	C	*		10C0I	TotalNA

T7is DetectioS ugmmar, [oes Sot iScrg[e ra[ioc7emicantest resgntsP

TestAmerica DeSder

Detection Summary

Instrument: uataStec I oSsgntiSp I or. P
 Project Write: uataStec I XR - y aSpn Q B

TestAmerica Job ID: 280-94618-C

Client Sample ID: RC4-CLU11-0.25 (Continued)

Lab Sample ID: 280-94768-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lea[	C2		0F88	0F26	mpVp	C	✱	10C0I	TotalNA
zoroS	9F0	z	8F0	0F83	mpVp	C	✱	10C0I	TotalNA
I arcigm	06000	z	4h	C2	mpVp	C	✱	10C0I	TotalNA
I o. . er	9F8		0F0	0F09	mpVp	C	✱	10C0I	TotalNA
F apSesigm	6600	z	06	hF2	mpVp	C	✱	10C0I	TotalNA
NicGen	C2		hF3	0F0C	mpVp	C	✱	10C0I	TotalNA
uo[igm	Ch0	J z	4h0	3C	mpVp	C	✱	10C0I	TotalNA
(iSc	30		2F1	0F14	mpVp	C	✱	10C0I	TotalNA
ArseSic	1F4		0F30	0F42	mpVp	C	✱	1020A	TotalNA
F ercgr,	0F068	J	0F2h	0F06h	mpVp	C	✱	646CA	TotalNA
I 7romigmO7e)	4F1	J	1F0	2F4	mpVp	C	✱	6C91A	TotalNA
I 7romigmOridareSt	1F4		1F0	2F4	mpVp	C	✱	6C91A	TotalNA
. U a[/Pto 23 [ep I	8F3	Uf	0F0	0F0	u]	C		9043D	uorgbre
Tem. eratgre	22F2	Uf	0F0	0F0	Deprees I	C		9043D	uorgbre
k rectricaln[oS[gctidit,	0F12		0F00	0F00	mm7osVcm	C		9030A	uorgbre

Client Sample ID: RC4-DUP01-0.25

Lab Sample ID: 280-94768-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
zeSKeSe	3F3		2F0	0F49	mpVp	00	✱	8210z	TotalNA
kt7, rbeSKeSe	C1		2F0	0F16	mpVp	00	✱	8210z	TotalNA
TorgeSe	hC		2F0	0F42	mpVp	00	✱	8210z	TotalNA
m-R, reSe E . -R, reSe	64		2F0	0F84	mpVp	00	✱	8210z	TotalNA
o-R, reSe	hC		0F1	0F18	mpVp	00	✱	8210z	TotalNA
R, reSesOTotan	000		2F0	0F18	mpVp	00	✱	8210z	TotalNA
zeSkoZwrgoraSt7eSe	0F098	J	0F23	0F39	mpVp	40	✱	8260D uIF	TotalNA
I 7r, seSe	0F2		0F23	0F49	mpVp	40	✱	8260D uIF	TotalNA
f rgoreSe	0F3		0F23	0F2h	mpVp	40	✱	8260D uIF	TotalNA
j , reSe	0F31	z	0F23	0F34	mpVp	40	✱	8260D uIF	TotalNA
Na. 7t7areSe - DL	C2		0F1C	0F40	mpVp	000	✱	8260D uIF	TotalNA
Hy B & 1-I COM	8h00		210	6C	mpVp	200	✱	80C3I	TotalNA
Dy B & CO-I 28M	28000		200	h3	mpVp	00	✱	80C3I	TotalNA
Na	230		00	00	mpVp	00		20z	uorgbre
I a	63		2F0	2F0	mpVp	00		20z	uorgbre
F p	C1		2F0	2F0	mpVp	00		20z	uorgbre
uo[igm A[sor. tioS y atio	1F8		0F2	0F2	No] Sit	00		20z	uorgbre
zarigm	99	z	0F0C	0F94	mpVp	C	✱	10C0I	TotalNA
I a[migm	0F06	J	0F43	0F1h6	mpVp	C	✱	10C0I	TotalNA
I 7romigm	Ch		0F4	0F3h	mpVp	C	✱	10C0I	TotalNA
Lea[	Ch		0F82	0F28	mpVp	C	✱	10C0I	TotalNA
zoroS	9F4	z	9F0	0F89	mpVp	C	✱	10C0I	TotalNA
I arcigm	20000	z	43	Ch	mpVp	C	✱	10C0I	TotalNA
I o. . er	C2		0F0	0F20	mpVp	C	✱	10C0I	TotalNA
F apSesigm	9100	z	08	hF4	mpVp	C	✱	10C0I	TotalNA
NicGen	Ch		hF1	0F02	mpVp	C	✱	10C0I	TotalNA
uo[igm	260	J z	430	34	mpVp	C	✱	10C0I	TotalNA
(iSc	34		2F0	0F11	mpVp	C	✱	10C0I	TotalNA
ArseSic	1F8		0F16	0F31	mpVp	C	✱	1020A	TotalNA
F ercgr,	0F006	J	0F24	0F066	mpVp	C	✱	646CA	TotalNA
I 7romigmO7e)	3F3	J	1F1	2F3	mpVp	C	✱	6C91A	TotalNA

T7is DetectioS ugmmar, [oes Sot iScrg[e ra[ioc7emicantest resgrtsP

TestAmerica DeSder

Detection Summary

IrieSt: utaStec I oSsgntiSp I or. P
 j ro/ectVite: utaStec I XR - y aSpn Q B

TestAmerica Job ID: 280-94618-C

Client Sample ID: RC4-DUP01-0.25 (Continued)

Lab Sample ID: 280-94768-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
I 7romigmQridareSt	6f2		1f3	2f4	mpVp	C	✱	6C91A	TotalNA
. U a[/Pto 23 [ep I	8f2	Uf	0f0	0f0	u]	C		9043D	uorgbre
Tem. eratgre	22f3	Uf	0f0	0f0	Deprees I	C		9043D	uorgbre
k ræctricanl oS[gctidit,	0f46		0f00	0f00	mm7osVcm	C		9030A	uorgbre

Method Summary

I nieSt: utaStec I oSsgtiSp I or. P
 j ro/ectWrite: utaStec I XR - y aSpeñ Q W

TestAmerica Job ID: 280-94618-C

Method	Method Description	Protocol	Laboratory
8210d	Xorative WrpaSic I om. ogS(s QM V uL	uB 841	TAE DN7
8260D ul)	uemivorative WrpaSic I om. ogS(s QM V u ul) L	uB 841	TAE DN7
80C5l	7 oSharopeSate(WrpaSics gsiSp MI VFID -) o(ifie(QMasoriSe y aSpe WrpaSicsL	uB 841	TAE DN7
80C5l	7 oSharopeSate(WrpaSics gsiSp MI VFID -) o(ifie(QDieseny aSpe WrpaSicsL	uB 841	TAE DN7
20d	uo(igm A(sor. tioSy atio	UuDA	TAE DN7
10C0l	) etars Q j L	uB 841	TAE DN7
1020A	) etars Q j V uL	uB 841	TAE DN7
646CA	) ercgr, Q XAAL	uB 841	TAE DN7
6C91A	I hromigmCHexavareSt	uB 841	TAE 7 uH
6C91A	I hromigmOTrivareSt Q onrimetricL	uB 841	TAE 7 uH
9045D	. H	uB 841	TAE DN7
9050A	u. ecific I oS(gctaSce	uB 841	TAE 7 uH
) oistgre	j erceSt) oistgre	Nj A	TAE DN7

Protocol References:

Nj A = Uu NSviroSmeStanj rotectionS ApeSc,
 uB 841 = "Test) etho(s For NvargatiSp uoni(B asteQ h, sicanV hemican) etho(s"OThir(N(itioSO7 overember C981 AS(lts U. (atesP
 UuDA = "UuDA Apricgrgre HaS(book 10CsectioS 20d"P

Laboratory References:

TAE DN7 = TestAmerica DeSverQ4955 Yarrow utreetQArva(aQ W80002OTNE Q03L631-0C00
 TAE 7 uH = TestAmerica 7 ashvineQ2910 Foster I reiphtoS DriveQ7 ashvineOT7 36204OTNE Q C5L621-0C66

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-94768-1	RC4-HEL06-0.25	Solid	03/10/17 14:10	03/11/17 20:05
280-94768-2	RC4-CLU07-0.25	Solid	03/10/17 14:20	03/11/17 20:05
280-94768-3	RC4-HEL08-0.25	Solid	03/10/17 15:45	03/11/17 20:05
280-94768-4	RC4-CLU09-0.25	Solid	03/10/17 15:55	03/11/17 20:05
280-94768-5	RC4-HEL10-0.25	Solid	03/11/17 09:20	03/11/17 20:05
280-94768-6	RC4-CLU11-0.25	Solid	03/11/17 09:35	03/11/17 20:05
280-94768-7	RC4-DUP01-0.25	Solid	03/10/17 00:00	03/11/17 20:05

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

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

Client Sample ID: RC4-HEL06-0.25

Date Collected: 03/10/17 14:10

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-1

Matrix: Solid

Percent Solids: 80.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0021	J	0.0047	0.00044	mg/Kg	☼	03/10/17 14:10	03/13/17 18:12	1
Ethylbenzene	ND		0.0047	0.00063	mg/Kg	☼	03/10/17 14:10	03/13/17 18:12	1
Toluene	0.0028	J	0.0047	0.00065	mg/Kg	☼	03/10/17 14:10	03/13/17 18:12	1
m-Xylene & p-Xylene	0.0013	J	0.0024	0.00098	mg/Kg	☼	03/10/17 14:10	03/13/17 18:12	1
o-Xylene	ND		0.0024	0.00058	mg/Kg	☼	03/10/17 14:10	03/13/17 18:12	1
Xylenes, Total	0.0013	J	0.0047	0.00058	mg/Kg	☼	03/10/17 14:10	03/13/17 18:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		53 - 140	0/ 7/07/19 14:10	0/ 7/ 7/19 13:12	1
Toluene-d3 (Surr)	84		30 - 12X	0/ 7/07/19 14:10	0/ 7/ 7/19 13:12	1
4-6roB ortuorof enbene (Surr)	83		9X- 129	0/ 7/07/19 14:10	0/ 7/ 7/19 13:12	1
Dif roB ortuoroB ethane (Surr)	108		95 - 121	0/ 7/07/19 14:10	0/ 7/ 7/19 13:12	1

Client Sample ID: RC4-CLU07-0.25

Date Collected: 03/10/17 14:20

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-2

Matrix: Solid

Percent Solids: 81.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	11		2.3	0.41	mg/Kg	☼	03/10/17 14:20	03/14/17 11:02	10
Ethylbenzene	19		2.3	0.31	mg/Kg	☼	03/10/17 14:20	03/14/17 11:02	10
Toluene	41		2.3	0.35	mg/Kg	☼	03/10/17 14:20	03/14/17 11:02	10
m-Xylene & p-Xylene	86		2.3	0.71	mg/Kg	☼	03/10/17 14:20	03/14/17 11:02	10
o-Xylene	34		1.1	0.32	mg/Kg	☼	03/10/17 14:20	03/14/17 11:02	10
Xylenes, Total	120		2.3	0.32	mg/Kg	☼	03/10/17 14:20	03/14/17 11:02	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103	D	52 - 1/ 5	0/ 7/07/19 14:20	0/ 7/47/19 11:02	10
Toluene-d3 (Surr)	1/ 4	D	X5 - 1/ 5	0/ 7/07/19 14:20	0/ 7/47/19 11:02	10
4-6roB ortuorof enbene (Surr)	1/ 1	D	X5 - 1/ 5	0/ 7/07/19 14:20	0/ 7/47/19 11:02	10
Dif roB ortuoroB ethane (Surr)	80	D	X5 - 1/ 5	0/ 7/07/19 14:20	0/ 7/47/19 11:02	10

Client Sample ID: RC4-HEL08-0.25

Date Collected: 03/10/17 15:45

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-3

Matrix: Solid

Percent Solids: 85.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0034	J	0.0059	0.00056	mg/Kg	☼	03/10/17 15:45	03/13/17 17:30	1
Ethylbenzene	0.0016	J	0.0059	0.00079	mg/Kg	☼	03/10/17 15:45	03/13/17 17:30	1
Toluene	0.0062		0.0059	0.00082	mg/Kg	☼	03/10/17 15:45	03/13/17 17:30	1
m-Xylene & p-Xylene	0.0052		0.0030	0.0012	mg/Kg	☼	03/10/17 15:45	03/13/17 17:30	1
o-Xylene	0.0024	J	0.0030	0.00072	mg/Kg	☼	03/10/17 15:45	03/13/17 17:30	1
Xylenes, Total	0.0076		0.0059	0.00072	mg/Kg	☼	03/10/17 15:45	03/13/17 17:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	1/ 0		53 - 140	0/ 7/07/19 15:45	0/ 7/ 7/19 19:/ 0	1
Toluene-d3 (Surr)	103		30 - 12X	0/ 7/07/19 15:45	0/ 7/ 7/19 19:/ 0	1
4-6roB ortuorof enbene (Surr)	109		9X- 129	0/ 7/07/19 15:45	0/ 7/ 7/19 19:/ 0	1
Dif roB ortuoroB ethane (Surr)	120		95 - 121	0/ 7/07/19 15:45	0/ 7/ 7/19 19:/ 0	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

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

Client Sample ID: RC4-CLU09-0.25

Date Collected: 03/10/17 15:55

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-4

Matrix: Solid

Percent Solids: 76.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	6.5		3.7	0.67	mg/Kg	☼	03/10/17 15:55	03/14/17 11:22	10
Ethylbenzene	19		3.7	0.51	mg/Kg	☼	03/10/17 15:55	03/14/17 11:22	10
Toluene	36		3.7	0.58	mg/Kg	☼	03/10/17 15:55	03/14/17 11:22	10
m-Xylene & p-Xylene	89		3.7	1.2	mg/Kg	☼	03/10/17 15:55	03/14/17 11:22	10
o-Xylene	37		1.9	0.52	mg/Kg	☼	03/10/17 15:55	03/14/17 11:22	10
Xylenes, Total	130		3.7	0.52	mg/Kg	☼	03/10/17 15:55	03/14/17 11:22	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	115	D	52 - 1/5	0/ 710719 15:55	0/ 714719 11:22	10
Toluene-d3 (Surr)	149	z D	X5 - 1/5	0/ 710719 15:55	0/ 714719 11:22	10
4-6roB ortuorof enbene (Surr)	123	D	X5 - 1/5	0/ 710719 15:55	0/ 714719 11:22	10
Dif roB ortuoroB ethane (Surr)	3X	D	X5 - 1/5	0/ 710719 15:55	0/ 714719 11:22	10

Client Sample ID: RC4-HEL10-0.25

Date Collected: 03/11/17 09:20

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-5

Matrix: Solid

Percent Solids: 92.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0019	J	0.0048	0.00045	mg/Kg	☼	03/11/17 09:20	03/13/17 18:32	1
Ethylbenzene	0.0015	J	0.0048	0.00064	mg/Kg	☼	03/11/17 09:20	03/13/17 18:32	1
Toluene	0.0039	J	0.0048	0.00066	mg/Kg	☼	03/11/17 09:20	03/13/17 18:32	1
m-Xylene & p-Xylene	0.0059		0.0024	0.0010	mg/Kg	☼	03/11/17 09:20	03/13/17 18:32	1
o-Xylene	0.0031		0.0024	0.00059	mg/Kg	☼	03/11/17 09:20	03/13/17 18:32	1
Xylenes, Total	0.0090		0.0048	0.00059	mg/Kg	☼	03/11/17 09:20	03/13/17 18:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		53 - 140	0/ 711719 08:20	0/ 71/ 719 13:/ 2	1
Toluene-d3 (Surr)	38		30 - 12X	0/ 711719 08:20	0/ 71/ 719 13:/ 2	1
4-6roB ortuorof enbene (Surr)	8/		9X - 129	0/ 711719 08:20	0/ 71/ 719 13:/ 2	1
Dif roB ortuoroB ethane (Surr)	102		95 - 121	0/ 711719 08:20	0/ 71/ 719 13:/ 2	1

Client Sample ID: RC4-CLU11-0.25

Date Collected: 03/11/17 09:35

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-6

Matrix: Solid

Percent Solids: 82.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.2	J	2.3	0.42	mg/Kg	☼	03/11/17 09:35	03/14/17 11:41	10
Ethylbenzene	6.3		2.3	0.31	mg/Kg	☼	03/11/17 09:35	03/14/17 11:41	10
Toluene	12		2.3	0.36	mg/Kg	☼	03/11/17 09:35	03/14/17 11:41	10
m-Xylene & p-Xylene	30		2.3	0.72	mg/Kg	☼	03/11/17 09:35	03/14/17 11:41	10
o-Xylene	12		1.2	0.32	mg/Kg	☼	03/11/17 09:35	03/14/17 11:41	10
Xylenes, Total	42		2.3	0.32	mg/Kg	☼	03/11/17 09:35	03/14/17 11:41	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110	D	52 - 1/5	0/ 711719 08:/ 5	0/ 714719 11:41	10
Toluene-d3 (Surr)	150	z D	X5 - 1/5	0/ 711719 08:/ 5	0/ 714719 11:41	10
4-6roB ortuorof enbene (Surr)	14X	z D	X5 - 1/5	0/ 711719 08:/ 5	0/ 714719 11:41	10
Dif roB ortuoroB ethane (Surr)	101	D	X5 - 1/5	0/ 711719 08:/ 5	0/ 714719 11:41	10

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

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

Client Sample ID: RC4-DUP01-0.25

Date Collected: 03/10/17 00:00

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-7

Matrix: Solid

Percent Solids: 77.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	5.5		2.7	0.49	mg/Kg	☼	03/10/17 00:00	03/14/17 12:01	10
Ethylbenzene	16		2.7	0.37	mg/Kg	☼	03/10/17 00:00	03/14/17 12:01	10
Toluene	31		2.7	0.42	mg/Kg	☼	03/10/17 00:00	03/14/17 12:01	10
m-Xylene & p-Xylene	74		2.7	0.84	mg/Kg	☼	03/10/17 00:00	03/14/17 12:01	10
o-Xylene	31		1.3	0.38	mg/Kg	☼	03/10/17 00:00	03/14/17 12:01	10
Xylenes, Total	110		2.7	0.38	mg/Kg	☼	03/10/17 00:00	03/14/17 12:01	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114	D	52 - 1/5	0/7/10/19 00:00	0/7/14/19 12:01	10
Toluene-d3 (Surr)	150	z D	X5 - 1/5	0/7/10/19 00:00	0/7/14/19 12:01	10
4-Fluorobenzene (Surr)	1/9	z D	X5 - 1/5	0/7/10/19 00:00	0/7/14/19 12:01	10
Difluorobenzene (Surr)	80	D	X5 - 1/5	0/7/10/19 00:00	0/7/14/19 12:01	10

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Client Sample ID: RC4-HEL06-0.25

Date Collected: 03/10/17 14:10

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-1

Matrix: Solid

Percent Solids: 80.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0059	0.00019	mg/Kg	☼	03/12/17 19:15	03/14/17 16:38	1
Anthracene	ND		0.0059	0.00085	mg/Kg	☼	03/12/17 19:15	03/14/17 16:38	1
Benzo[a]anthracene	ND		0.0059	0.0011	mg/Kg	☼	03/12/17 19:15	03/14/17 16:38	1
Benzo[a]pyrene	ND		0.0059	0.00088	mg/Kg	☼	03/12/17 19:15	03/14/17 16:38	1
Benzo[b]fluoranthene	ND		0.0059	0.0014	mg/Kg	☼	03/12/17 19:15	03/14/17 16:38	1
Benzo[k]fluoranthene	ND		0.0059	0.0012	mg/Kg	☼	03/12/17 19:15	03/14/17 16:38	1
Chrysene	ND		0.0059	0.0012	mg/Kg	☼	03/12/17 19:15	03/14/17 16:38	1
Dibenz(a,h)anthracene	ND		0.0059	0.0015	mg/Kg	☼	03/12/17 19:15	03/14/17 16:38	1
Fluoranthene	ND		0.0059	0.0012	mg/Kg	☼	03/12/17 19:15	03/14/17 16:38	1
Fluorene	ND		0.0059	0.00056	mg/Kg	☼	03/12/17 19:15	03/14/17 16:38	1
Indeno[1,2,3-cd]pyrene	ND		0.0059	0.0013	mg/Kg	☼	03/12/17 19:15	03/14/17 16:38	1
Naphthalene	0.00073	J	0.0059	0.00039	mg/Kg	☼	03/12/17 19:15	03/14/17 16:38	1
Pyrene	ND		0.0059	0.0013	mg/Kg	☼	03/12/17 19:15	03/14/17 16:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenyl	94		78 - 120	0/7/12/19 18:15	0/7/14/19 1X/3	1
Nitrobenzene-d5	8/		42 - 120	0/7/12/19 18:15	0/7/14/19 1X/3	1
Terphenyl-d14	X2		75 - 124	0/7/12/19 18:15	0/7/14/19 1X/3	1

Client Sample ID: RC4-CLU07-0.25

Date Collected: 03/10/17 14:20

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-2

Matrix: Solid

Percent Solids: 81.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.24	0.0078	mg/Kg	☼	03/12/17 19:15	03/14/17 17:04	40
Anthracene	ND		0.24	0.035	mg/Kg	☼	03/12/17 19:15	03/14/17 17:04	40
Benzo[a]anthracene	ND		0.24	0.044	mg/Kg	☼	03/12/17 19:15	03/14/17 17:04	40
Benzo[a]pyrene	ND		0.24	0.036	mg/Kg	☼	03/12/17 19:15	03/14/17 17:04	40
Benzo[b]fluoranthene	0.13	J	0.24	0.059	mg/Kg	☼	03/12/17 19:15	03/14/17 17:04	40
Benzo[k]fluoranthene	ND		0.24	0.049	mg/Kg	☼	03/12/17 19:15	03/14/17 17:04	40
Chrysene	1.5		0.24	0.049	mg/Kg	☼	03/12/17 19:15	03/14/17 17:04	40
Dibenz(a,h)anthracene	ND		0.24	0.064	mg/Kg	☼	03/12/17 19:15	03/14/17 17:04	40

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: RC4-CLU07-0.25

Date Collected: 03/10/17 14:20

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-2

Matrix: Solid

Percent Solids: 81.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		0.24	0.049	mg/Kg	☼	03/12/17 19:15	03/14/17 17:04	40
Fluorene	1.9		0.24	0.023	mg/Kg	☼	03/12/17 19:15	03/14/17 17:04	40
Indeno[1,2,3-cd]pyrene	ND		0.24	0.054	mg/Kg	☼	03/12/17 19:15	03/14/17 17:04	40
Pyrene	0.75	B	0.24	0.054	mg/Kg	☼	03/12/17 19:15	03/14/17 17:04	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorof iphenyl	254	z D	/ 8 - 120	0/ 71279 18:15	0/ 71479 19:04	40
Nitrof enbene-d5	/ 0225	z D	42 - 120	0/ 71279 18:15	0/ 71479 19:04	40
Terphenyl-d14	/ XX	z D	/ 5 - 124	0/ 71279 18:15	0/ 71479 19:04	40

Client Sample ID: RC4-HEL08-0.25

Date Collected: 03/10/17 15:45

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-3

Matrix: Solid

Percent Solids: 85.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0056	0.00018	mg/Kg	☼	03/12/17 19:15	03/14/17 17:29	1
Anthracene	ND		0.0056	0.00080	mg/Kg	☼	03/12/17 19:15	03/14/17 17:29	1
Benzo[a]anthracene	ND		0.0056	0.0010	mg/Kg	☼	03/12/17 19:15	03/14/17 17:29	1
Benzo[a]pyrene	ND		0.0056	0.00083	mg/Kg	☼	03/12/17 19:15	03/14/17 17:29	1
Benzo[b]fluoranthene	ND		0.0056	0.0013	mg/Kg	☼	03/12/17 19:15	03/14/17 17:29	1
Benzo[k]fluoranthene	ND		0.0056	0.0011	mg/Kg	☼	03/12/17 19:15	03/14/17 17:29	1
Chrysene	ND		0.0056	0.0011	mg/Kg	☼	03/12/17 19:15	03/14/17 17:29	1
Dibenz(a,h)anthracene	ND		0.0056	0.0015	mg/Kg	☼	03/12/17 19:15	03/14/17 17:29	1
Fluoranthene	ND		0.0056	0.0011	mg/Kg	☼	03/12/17 19:15	03/14/17 17:29	1
Fluorene	ND		0.0056	0.00052	mg/Kg	☼	03/12/17 19:15	03/14/17 17:29	1
Indeno[1,2,3-cd]pyrene	ND		0.0056	0.0012	mg/Kg	☼	03/12/17 19:15	03/14/17 17:29	1
Naphthalene	0.0027	J	0.0056	0.00036	mg/Kg	☼	03/12/17 19:15	03/14/17 17:29	1
Pyrene	ND		0.0056	0.0012	mg/Kg	☼	03/12/17 19:15	03/14/17 17:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorof iphenyl	98		/ 8 - 120	0/ 71279 18:15	0/ 71479 19:28	1
Nitrof enbene-d5	84		42 - 120	0/ 71279 18:15	0/ 71479 19:28	1
Terphenyl-d14	91		/ 5 - 124	0/ 71279 18:15	0/ 71479 19:28	1

Client Sample ID: RC4-CLU09-0.25

Date Collected: 03/10/17 15:55

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-4

Matrix: Solid

Percent Solids: 76.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.26	0.0082	mg/Kg	☼	03/12/17 19:15	03/14/17 18:47	40
Anthracene	ND		0.26	0.037	mg/Kg	☼	03/12/17 19:15	03/14/17 18:47	40
Benzo[a]anthracene	ND		0.26	0.046	mg/Kg	☼	03/12/17 19:15	03/14/17 18:47	40
Benzo[a]pyrene	ND		0.26	0.038	mg/Kg	☼	03/12/17 19:15	03/14/17 18:47	40
Benzo[b]fluoranthene	0.074	J	0.26	0.062	mg/Kg	☼	03/12/17 19:15	03/14/17 18:47	40
Benzo[k]fluoranthene	ND		0.26	0.051	mg/Kg	☼	03/12/17 19:15	03/14/17 18:47	40
Chrysene	1.0		0.26	0.051	mg/Kg	☼	03/12/17 19:15	03/14/17 18:47	40
Dibenz(a,h)anthracene	ND		0.26	0.067	mg/Kg	☼	03/12/17 19:15	03/14/17 18:47	40
Fluoranthene	ND		0.26	0.051	mg/Kg	☼	03/12/17 19:15	03/14/17 18:47	40
Fluorene	1.3		0.26	0.024	mg/Kg	☼	03/12/17 19:15	03/14/17 18:47	40
Indeno[1,2,3-cd]pyrene	ND		0.26	0.056	mg/Kg	☼	03/12/17 19:15	03/14/17 18:47	40
Pyrene	0.46	B	0.26	0.056	mg/Kg	☼	03/12/17 19:15	03/14/17 18:47	40

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorof iphenyl	184	z D	/ 8 - 120	0/ 712719 18:15	0/ 714719 13:49	40
Nitrofenbene-d5	2/ 934	z D	42 - 120	0/ 712719 18:15	0/ 714719 13:49	40
Terphenyl-d14	184	z D	/ 5 - 124	0/ 712719 18:15	0/ 714719 13:49	40

Client Sample ID: RC4-HEL10-0.25

Date Collected: 03/11/17 09:20

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-5

Matrix: Solid

Percent Solids: 92.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0053	0.00017	mg/Kg	✱	03/12/17 19:15	03/14/17 19:13	1
Anthracene	ND		0.0053	0.00077	mg/Kg	✱	03/12/17 19:15	03/14/17 19:13	1
Benzo[a]anthracene	0.00096	J	0.0053	0.00096	mg/Kg	✱	03/12/17 19:15	03/14/17 19:13	1
Benzo[a]pyrene	0.0014	J	0.0053	0.00079	mg/Kg	✱	03/12/17 19:15	03/14/17 19:13	1
Benzo[b]fluoranthene	0.0029	J	0.0053	0.0013	mg/Kg	✱	03/12/17 19:15	03/14/17 19:13	1
Benzo[k]fluoranthene	0.0014	J	0.0053	0.0011	mg/Kg	✱	03/12/17 19:15	03/14/17 19:13	1
Chrysene	0.0032	J	0.0053	0.0011	mg/Kg	✱	03/12/17 19:15	03/14/17 19:13	1
Dibenz(a,h)anthracene	ND		0.0053	0.0014	mg/Kg	✱	03/12/17 19:15	03/14/17 19:13	1
Fluoranthene	0.0021	J B	0.0053	0.0011	mg/Kg	✱	03/12/17 19:15	03/14/17 19:13	1
Fluorene	0.0013	J	0.0053	0.00050	mg/Kg	✱	03/12/17 19:15	03/14/17 19:13	1
Indeno[1,2,3-cd]pyrene	0.0023	J	0.0053	0.0012	mg/Kg	✱	03/12/17 19:15	03/14/17 19:13	1
Naphthalene	0.014		0.0053	0.00035	mg/Kg	✱	03/12/17 19:15	03/14/17 19:13	1
Pyrene	0.0031	J B	0.0053	0.0012	mg/Kg	✱	03/12/17 19:15	03/14/17 19:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorof iphenyl	99		/ 8 - 120	0/ 712719 18:15	0/ 714719 18:17	1
Nitrofenbene-d5	8/		42 - 120	0/ 712719 18:15	0/ 714719 18:17	1
Terphenyl-d14	92		/ 5 - 124	0/ 712719 18:15	0/ 714719 18:17	1

Client Sample ID: RC4-CLU11-0.25

Date Collected: 03/11/17 09:35

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-6

Matrix: Solid

Percent Solids: 82.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.12	0.0039	mg/Kg	✱	03/12/17 19:15	03/14/17 19:39	20
Anthracene	ND		0.12	0.017	mg/Kg	✱	03/12/17 19:15	03/14/17 19:39	20
Benzo[a]anthracene	ND		0.12	0.022	mg/Kg	✱	03/12/17 19:15	03/14/17 19:39	20
Benzo[a]pyrene	ND		0.12	0.018	mg/Kg	✱	03/12/17 19:15	03/14/17 19:39	20
Benzo[b]fluoranthene	ND		0.12	0.029	mg/Kg	✱	03/12/17 19:15	03/14/17 19:39	20
Benzo[k]fluoranthene	ND		0.12	0.024	mg/Kg	✱	03/12/17 19:15	03/14/17 19:39	20
Chrysene	0.23		0.12	0.024	mg/Kg	✱	03/12/17 19:15	03/14/17 19:39	20
Dibenz(a,h)anthracene	ND		0.12	0.031	mg/Kg	✱	03/12/17 19:15	03/14/17 19:39	20
Fluoranthene	ND		0.12	0.024	mg/Kg	✱	03/12/17 19:15	03/14/17 19:39	20
Fluorene	0.31		0.12	0.011	mg/Kg	✱	03/12/17 19:15	03/14/17 19:39	20
Indeno[1,2,3-cd]pyrene	ND		0.12	0.027	mg/Kg	✱	03/12/17 19:15	03/14/17 19:39	20
Naphthalene	2.0		0.12	0.0079	mg/Kg	✱	03/12/17 19:15	03/14/17 19:39	20
Pyrene	0.11	J B	0.12	0.027	mg/Kg	✱	03/12/17 19:15	03/14/17 19:39	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorof iphenyl	111	D	/ 8 - 120	0/ 712719 18:15	0/ 714719 18:18	20
Nitrofenbene-d5	4831	z D	42 - 120	0/ 712719 18:15	0/ 714719 18:18	20
Terphenyl-d14	112	D	/ 5 - 124	0/ 712719 18:15	0/ 714719 18:18	20

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Client Sample ID: RC4-DUP01-0.25

Date Collected: 03/10/17 00:00

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-7

Matrix: Solid

Percent Solids: 77.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.25	0.0079	mg/Kg	☼	03/12/17 19:15	03/14/17 20:04	40
Anthracene	ND		0.25	0.035	mg/Kg	☼	03/12/17 19:15	03/14/17 20:04	40
Benzo[a]anthracene	ND		0.25	0.044	mg/Kg	☼	03/12/17 19:15	03/14/17 20:04	40
Benzo[a]pyrene	ND		0.25	0.036	mg/Kg	☼	03/12/17 19:15	03/14/17 20:04	40
Benzo[b]fluoranthene	0.098	J	0.25	0.059	mg/Kg	☼	03/12/17 19:15	03/14/17 20:04	40
Benzo[k]fluoranthene	ND		0.25	0.049	mg/Kg	☼	03/12/17 19:15	03/14/17 20:04	40
Chrysene	1.2		0.25	0.049	mg/Kg	☼	03/12/17 19:15	03/14/17 20:04	40
Dibenz(a,h)anthracene	ND		0.25	0.064	mg/Kg	☼	03/12/17 19:15	03/14/17 20:04	40
Fluoranthene	ND		0.25	0.049	mg/Kg	☼	03/12/17 19:15	03/14/17 20:04	40
Fluorene	1.5		0.25	0.023	mg/Kg	☼	03/12/17 19:15	03/14/17 20:04	40
Indeno[1,2,3-cd]pyrene	ND		0.25	0.054	mg/Kg	☼	03/12/17 19:15	03/14/17 20:04	40
Pyrene	0.56	B	0.25	0.054	mg/Kg	☼	03/12/17 19:15	03/14/17 20:04	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorof iphenyl	209	z D	/ 8 - 120	0/ 712719 18:15	0/ 714719 20:04	40
Nitrof enbene-d5	2/ 388	z D	42 - 120	0/ 712719 18:15	0/ 714719 20:04	40
Terphenyl-d14	28X	z D	/ 5 - 124	0/ 712719 18:15	0/ 714719 20:04	40

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) - DL

Client Sample ID: RC4-CLU07-0.25

Date Collected: 03/10/17 14:20

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-2

Matrix: Solid

Percent Solids: 81.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	12		0.61	0.040	mg/Kg	☼	03/12/17 19:15	03/14/17 20:56	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorof iphenyl	/ 14	z D	/ 8 - 120	0/ 712719 18:15	0/ 714719 20:5X	100
Nitrof enbene-d5	/ 2505	z D	42 - 120	0/ 712719 18:15	0/ 714719 20:5X	100
Terphenyl-d14	/ 20	z D	/ 5 - 124	0/ 712719 18:15	0/ 714719 20:5X	100

Client Sample ID: RC4-CLU09-0.25

Date Collected: 03/10/17 15:55

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-4

Matrix: Solid

Percent Solids: 76.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	10		0.64	0.042	mg/Kg	☼	03/12/17 19:15	03/14/17 21:22	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorof iphenyl	250	z D	/ 8 - 120	0/ 712719 18:15	0/ 714719 21:22	100
Nitrof enbene-d5	25511	z D	42 - 120	0/ 712719 18:15	0/ 714719 21:22	100
Terphenyl-d14	0	z D	/ 5 - 124	0/ 712719 18:15	0/ 714719 21:22	100

Client Sample ID: RC4-DUP01-0.25

Date Collected: 03/10/17 00:00

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-7

Matrix: Solid

Percent Solids: 77.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	12		0.61	0.040	mg/Kg	☼	03/12/17 19:15	03/14/17 22:13	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorof iphenyl	282	z D	/ 8 - 120	0/ 712719 18:15	0/ 714719 22:1/	100
Nitrof enbene-d5	/ 0X09	z D	42 - 120	0/ 712719 18:15	0/ 714719 22:1/	100

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) - DL (Continued)

Client Sample ID: RC4-DUP01-0.25

Date Collected: 03/10/17 00:00

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-7

Matrix: Solid

Percent Solids: 77.3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	/ 04	z D	/ 5 - 124	0/ 712719 18:15	0/ 714719 22:1/	100

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-HEL06-0.25

Date Collected: 03/10/17 14:10

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-1

Matrix: Solid

Percent Solids: 80.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.1	0.29	mg/Kg	☼	03/10/17 14:10	03/15/17 01:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	38		99 - 12/				0/ 710719 14:10	0/ 715719 01:2/	1

Client Sample ID: RC4-CLU07-0.25

Date Collected: 03/10/17 14:20

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-2

Matrix: Solid

Percent Solids: 81.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	7800		240	64	mg/Kg	☼	03/10/17 14:20	03/16/17 01:00	200
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	8099	D z	99 - 12/				0/ 710719 14:20	0/ 71X719 01:00	200

Client Sample ID: RC4-HEL08-0.25

Date Collected: 03/10/17 15:45

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-3

Matrix: Solid

Percent Solids: 85.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.4	0.37	mg/Kg	☼	03/10/17 15:45	03/16/17 01:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	89		99 - 12/				0/ 710719 15:45	0/ 71X719 01:25	1

Client Sample ID: RC4-CLU09-0.25

Date Collected: 03/10/17 15:55

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-4

Matrix: Solid

Percent Solids: 76.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	5000		120	33	mg/Kg	☼	03/10/17 15:55	03/16/17 13:24	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a.a.a-Trifluorotoluene	2810	D z	99 - 12/				0/ 710719 15:55	0/ 71X719 1/:24	100

Client Sample ID: RC4-HEL10-0.25

Date Collected: 03/11/17 09:20

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-5

Matrix: Solid

Percent Solids: 92.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.2	0.32	mg/Kg	☼	03/11/17 09:20	03/16/17 02:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	35		99 - 12/				0/ 71719 08:20	0/ 71X719 02:14	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-CLU11-0.25

Date Collected: 03/11/17 09:35

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	280		11	3.0	mg/Kg	☼	03/11/17 09:35	03/16/17 02:39	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	214	D z	99 - 12/	0/ 71719 08:/ 5	0/ 71X719 02:/ 8	10

Lab Sample ID: 280-94768-6

Matrix: Solid

Percent Solids: 82.3

Client Sample ID: RC4-DUP01-0.25

Date Collected: 03/10/17 00:00

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	8300		260	71	mg/Kg	☼	03/11/17 00:00	03/16/17 03:03	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	3123	D z	99 - 12/	0/ 71719 00:00	0/ 71X719 0/: 0/	200

Lab Sample ID: 280-94768-7

Matrix: Solid

Percent Solids: 77.3

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-HEL06-0.25

Date Collected: 03/10/17 14:10

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	2.1	J	4.9	0.83	mg/Kg	☼	03/12/17 17:57	03/15/17 19:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	X0		48 - 115	0/ 712719 19:59	0/ 715719 18:19	1

Lab Sample ID: 280-94768-1

Matrix: Solid

Percent Solids: 80.8

Client Sample ID: RC4-HEL08-0.25

Date Collected: 03/10/17 15:45

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	4.5		4.2	0.72	mg/Kg	☼	03/12/17 17:57	03/15/17 20:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	9/		48 - 115	0/ 712719 19:59	0/ 715719 20:1X	1

Lab Sample ID: 280-94768-3

Matrix: Solid

Percent Solids: 85.8

Client Sample ID: RC4-CLU09-0.25

Date Collected: 03/10/17 15:55

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	20000		210	35	mg/Kg	☼	03/12/17 17:57	03/15/17 20:45	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	1/ 99	z D	48 - 115	0/ 712719 19:59	0/ 715719 20:45	10

Lab Sample ID: 280-94768-4

Matrix: Solid

Percent Solids: 76.4

Client Sample ID: RC4-HEL10-0.25

Date Collected: 03/11/17 09:20

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	10		4.1	0.70	mg/Kg	☼	03/12/17 17:57	03/15/17 21:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	92		48 - 115	0/ 712719 19:59	0/ 715719 21:14	1

Lab Sample ID: 280-94768-5

Matrix: Solid

Percent Solids: 92.8

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-CLU11-0.25

Date Collected: 03/11/17 09:35

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-6

Matrix: Solid

Percent Solids: 82.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	1300		9.4	1.6	mg/Kg	☼	03/12/17 17:57	03/15/17 22:40	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	103		48 - 115	0/ 7/27/9 19:59	0/ 7/57/9 22:40	2

Client Sample ID: RC4-DUP01-0.25

Date Collected: 03/10/17 00:00

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-7

Matrix: Solid

Percent Solids: 77.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	28000		200	35	mg/Kg	☼	03/12/17 17:57	03/15/17 23:09	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	20X0	z D	48 - 115	0/ 7/27/9 19:59	0/ 7/57/9 2/ :08	10

Method: 20B - Sodium Adsorption Ratio - Soluble

Client Sample ID: RC4-HEL06-0.25

Date Collected: 03/10/17 14:10

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-1

Matrix: Solid

Percent Solids: 80.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	91		10	10	mg/Kg		03/13/17 09:48	03/14/17 10:15	10
Ca	52		2.0	2.0	mg/Kg		03/13/17 09:48	03/14/17 10:15	10
Mg	8.6		2.0	2.0	mg/Kg		03/13/17 09:48	03/14/17 10:15	10
Sodium Adsorption Ratio	3.1		1.2	1.2	No Unit		03/13/17 09:48	03/14/17 10:15	10

Client Sample ID: RC4-CLU07-0.25

Date Collected: 03/10/17 14:20

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-2

Matrix: Solid

Percent Solids: 81.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	87		10	10	mg/Kg		03/13/17 09:48	03/14/17 10:18	10
Ca	310		2.0	2.0	mg/Kg		03/13/17 09:48	03/14/17 10:18	10
Mg	57		2.0	2.0	mg/Kg		03/13/17 09:48	03/14/17 10:18	10
Sodium Adsorption Ratio	1.2		1.2	1.2	No Unit		03/13/17 09:48	03/14/17 10:18	10

Client Sample ID: RC4-HEL08-0.25

Date Collected: 03/10/17 15:45

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-3

Matrix: Solid

Percent Solids: 85.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	380		10	10	mg/Kg		03/13/17 09:48	03/14/17 10:32	10
Ca	97		2.0	2.0	mg/Kg		03/13/17 09:48	03/14/17 10:32	10
Mg	20		2.0	2.0	mg/Kg		03/13/17 09:48	03/14/17 10:32	10
Sodium Adsorption Ratio	9.1		1.2	1.2	No Unit		03/13/17 09:48	03/14/17 10:32	10

Client Sample ID: RC4-CLU09-0.25

Date Collected: 03/10/17 15:55

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-4

Matrix: Solid

Percent Solids: 76.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	130		10	10	mg/Kg		03/13/17 09:48	03/14/17 10:35	10
Ca	430		2.0	2.0	mg/Kg		03/13/17 09:48	03/14/17 10:35	10
Mg	89		2.0	2.0	mg/Kg		03/13/17 09:48	03/14/17 10:35	10
Sodium Adsorption Ratio	1.5		1.2	1.2	No Unit		03/13/17 09:48	03/14/17 10:35	10

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

Method: 20B - Sodium Adsorption Ratio - Soluble

Client Sample ID: RC4-HEL10-0.25

Date Collected: 03/11/17 09:20

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-5

Matrix: Solid

Percent Solids: 92.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	36		10	10	mg/Kg		03/13/17 09:48	03/14/17 10:38	10
Ca	260		2.0	2.0	mg/Kg		03/13/17 09:48	03/14/17 10:38	10
Mg	50		2.0	2.0	mg/Kg		03/13/17 09:48	03/14/17 10:38	10
Sodium Adsorption Ratio	ND		1.2	1.2	No Unit		03/13/17 09:48	03/14/17 10:38	10

Client Sample ID: RC4-CLU11-0.25

Date Collected: 03/11/17 09:35

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-6

Matrix: Solid

Percent Solids: 82.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	130		10	10	mg/Kg		03/13/17 09:48	03/14/17 10:41	10
Ca	390		2.0	2.0	mg/Kg		03/13/17 09:48	03/14/17 10:41	10
Mg	78		2.0	2.0	mg/Kg		03/13/17 09:48	03/14/17 10:41	10
Sodium Adsorption Ratio	1.5		1.2	1.2	No Unit		03/13/17 09:48	03/14/17 10:41	10

Client Sample ID: RC4-DUP01-0.25

Date Collected: 03/10/17 00:00

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-7

Matrix: Solid

Percent Solids: 77.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	250		10	10	mg/Kg		03/13/17 09:48	03/14/17 10:44	10
Ca	75		2.0	2.0	mg/Kg		03/13/17 09:48	03/14/17 10:44	10
Mg	16		2.0	2.0	mg/Kg		03/13/17 09:48	03/14/17 10:44	10
Sodium Adsorption Ratio	6.8		1.2	1.2	No Unit		03/13/17 09:48	03/14/17 10:44	10

Method: 6010C - Metals (ICP)

Client Sample ID: RC4-HEL06-0.25

Date Collected: 03/10/17 14:10

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-1

Matrix: Solid

Percent Solids: 80.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	130	B	0.84	0.087	mg/Kg	☼	03/13/17 14:35	03/14/17 02:37	1
Cadmium	0.22	J F2	0.42	0.034	mg/Kg	☼	03/13/17 14:35	03/14/17 02:37	1
Chromium	15		1.3	0.049	mg/Kg	☼	03/13/17 14:35	03/14/17 02:37	1
Lead	15		0.76	0.26	mg/Kg	☼	03/13/17 14:35	03/14/17 02:37	1
Boron	13	B	8.4	0.82	mg/Kg	☼	03/13/17 14:35	03/14/17 02:37	1
Selenium	ND	F2	1.3	0.72	mg/Kg	☼	03/13/17 14:35	03/14/17 17:05	1
Silver	ND	F2	0.84	0.13	mg/Kg	☼	03/13/17 14:35	03/14/17 02:37	1
Calcium	22000	B	42	12	mg/Kg	☼	03/13/17 14:35	03/14/17 02:37	1
Copper	13		1.7	0.18	mg/Kg	☼	03/13/17 14:35	03/14/17 17:05	1
Magnesium	9500	B	17	3.1	mg/Kg	☼	03/13/17 14:35	03/14/17 02:37	1
Nickel	15		3.4	0.11	mg/Kg	☼	03/13/17 14:35	03/14/17 02:37	1
Sodium	250	J B F2	420	50	mg/Kg	☼	03/13/17 14:35	03/14/17 02:37	1
Zinc	62		2.5	0.33	mg/Kg	☼	03/13/17 14:35	03/14/17 02:37	1

Client Sample ID: RC4-CLU07-0.25

Date Collected: 03/10/17 14:20

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-2

Matrix: Solid

Percent Solids: 81.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	100	B	0.89	0.092	mg/Kg	☼	03/13/17 14:35	03/14/17 03:00	1
Cadmium	0.20	J	0.44	0.036	mg/Kg	☼	03/13/17 14:35	03/14/17 03:00	1
Chromium	12		1.3	0.051	mg/Kg	☼	03/13/17 14:35	03/14/17 03:00	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

Method: 6010C - Metals (ICP) (Continued)

Client Sample ID: RC4-CLU07-0.25

Date Collected: 03/10/17 14:20

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-2

Matrix: Solid

Percent Solids: 81.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	12		0.80	0.27	mg/Kg	☼	03/13/17 14:35	03/14/17 03:00	1
Boron	10	B	8.9	0.87	mg/Kg	☼	03/13/17 14:35	03/14/17 03:00	1
Selenium	ND		1.3	0.76	mg/Kg	☼	03/13/17 14:35	03/14/17 17:27	1
Silver	ND		0.89	0.14	mg/Kg	☼	03/13/17 14:35	03/14/17 03:00	1
Calcium	19000	B	44	12	mg/Kg	☼	03/13/17 14:35	03/14/17 03:00	1
Copper	11		1.8	0.19	mg/Kg	☼	03/13/17 14:35	03/14/17 17:27	1
Magnesium	8600	B	18	3.3	mg/Kg	☼	03/13/17 14:35	03/14/17 03:00	1
Nickel	12		3.5	0.12	mg/Kg	☼	03/13/17 14:35	03/14/17 03:00	1
Sodium	200	J B	440	52	mg/Kg	☼	03/13/17 14:35	03/14/17 03:00	1
Zinc	51		2.7	0.35	mg/Kg	☼	03/13/17 14:35	03/14/17 03:00	1

Client Sample ID: RC4-HEL08-0.25

Date Collected: 03/10/17 15:45

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-3

Matrix: Solid

Percent Solids: 85.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	120	B	0.97	0.10	mg/Kg	☼	03/13/17 14:35	03/14/17 03:02	1
Cadmium	0.21	J	0.48	0.040	mg/Kg	☼	03/13/17 14:35	03/14/17 03:02	1
Chromium	14		1.5	0.056	mg/Kg	☼	03/13/17 14:35	03/14/17 03:02	1
Lead	14		0.87	0.30	mg/Kg	☼	03/13/17 14:35	03/14/17 03:02	1
Boron	11	B	9.7	0.95	mg/Kg	☼	03/13/17 14:35	03/14/17 03:02	1
Selenium	ND		1.5	0.83	mg/Kg	☼	03/13/17 14:35	03/14/17 17:30	1
Silver	ND		0.97	0.15	mg/Kg	☼	03/13/17 14:35	03/14/17 03:02	1
Calcium	23000	B	48	14	mg/Kg	☼	03/13/17 14:35	03/14/17 03:02	1
Copper	13		1.9	0.21	mg/Kg	☼	03/13/17 14:35	03/14/17 17:30	1
Magnesium	10000	B	19	3.6	mg/Kg	☼	03/13/17 14:35	03/14/17 03:02	1
Nickel	13		3.9	0.13	mg/Kg	☼	03/13/17 14:35	03/14/17 03:02	1
Sodium	550	B	480	57	mg/Kg	☼	03/13/17 14:35	03/14/17 03:02	1
Zinc	57		2.9	0.38	mg/Kg	☼	03/13/17 14:35	03/14/17 03:02	1

Client Sample ID: RC4-CLU09-0.25

Date Collected: 03/10/17 15:55

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-4

Matrix: Solid

Percent Solids: 76.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	91	B	1.0	0.11	mg/Kg	☼	03/13/17 14:35	03/14/17 03:04	1
Cadmium	0.17	J	0.51	0.042	mg/Kg	☼	03/13/17 14:35	03/14/17 03:04	1
Chromium	12		1.5	0.060	mg/Kg	☼	03/13/17 14:35	03/14/17 03:04	1
Lead	12		0.92	0.32	mg/Kg	☼	03/13/17 14:35	03/14/17 03:04	1
Boron	10	B	10	1.0	mg/Kg	☼	03/13/17 14:35	03/14/17 03:04	1
Selenium	ND		1.5	0.88	mg/Kg	☼	03/13/17 14:35	03/14/17 17:32	1
Silver	ND		1.0	0.16	mg/Kg	☼	03/13/17 14:35	03/14/17 03:04	1
Calcium	19000	B	51	14	mg/Kg	☼	03/13/17 14:35	03/14/17 03:04	1
Copper	11		2.1	0.22	mg/Kg	☼	03/13/17 14:35	03/14/17 17:32	1
Magnesium	8500	B	21	3.8	mg/Kg	☼	03/13/17 14:35	03/14/17 03:04	1
Nickel	11		4.1	0.14	mg/Kg	☼	03/13/17 14:35	03/14/17 03:04	1
Sodium	250	J B	510	61	mg/Kg	☼	03/13/17 14:35	03/14/17 03:04	1
Zinc	49		3.1	0.41	mg/Kg	☼	03/13/17 14:35	03/14/17 03:04	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

Method: 6010C - Metals (ICP)

Client Sample ID: RC4-HEL10-0.25

Date Collected: 03/11/17 09:20

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-5

Matrix: Solid

Percent Solids: 92.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	120	B	0.98	0.10	mg/Kg	☼	03/13/17 14:35	03/14/17 03:07	1
Cadmium	0.17	J	0.49	0.040	mg/Kg	☼	03/13/17 14:35	03/14/17 03:07	1
Chromium	12		1.5	0.057	mg/Kg	☼	03/13/17 14:35	03/14/17 03:07	1
Lead	12		0.88	0.30	mg/Kg	☼	03/13/17 14:35	03/14/17 03:07	1
Boron	10	B	9.8	0.96	mg/Kg	☼	03/13/17 14:35	03/14/17 03:07	1
Selenium	ND		1.5	0.84	mg/Kg	☼	03/13/17 14:35	03/14/17 17:35	1
Silver	ND		0.98	0.16	mg/Kg	☼	03/13/17 14:35	03/14/17 03:07	1
Calcium	17000	B	49	14	mg/Kg	☼	03/13/17 14:35	03/14/17 03:07	1
Copper	10		2.0	0.21	mg/Kg	☼	03/13/17 14:35	03/14/17 17:35	1
Magnesium	7500	B	20	3.6	mg/Kg	☼	03/13/17 14:35	03/14/17 03:07	1
Nickel	12		3.9	0.13	mg/Kg	☼	03/13/17 14:35	03/14/17 03:07	1
Sodium	400	J B	490	58	mg/Kg	☼	03/13/17 14:35	03/14/17 03:07	1
Zinc	49		2.9	0.39	mg/Kg	☼	03/13/17 14:35	03/14/17 03:07	1

Client Sample ID: RC4-CLU11-0.25

Date Collected: 03/11/17 09:35

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-6

Matrix: Solid

Percent Solids: 82.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	110	B	0.87	0.090	mg/Kg	☼	03/13/17 14:35	03/14/17 03:09	1
Cadmium	0.19	J	0.43	0.036	mg/Kg	☼	03/13/17 14:35	03/14/17 03:09	1
Chromium	11		1.3	0.050	mg/Kg	☼	03/13/17 14:35	03/14/17 03:09	1
Lead	12		0.78	0.27	mg/Kg	☼	03/13/17 14:35	03/14/17 03:09	1
Boron	9.0	B	8.7	0.85	mg/Kg	☼	03/13/17 14:35	03/14/17 03:09	1
Selenium	ND		1.3	0.75	mg/Kg	☼	03/13/17 14:35	03/14/17 17:37	1
Silver	ND		0.87	0.14	mg/Kg	☼	03/13/17 14:35	03/14/17 03:09	1
Calcium	17000	B	43	12	mg/Kg	☼	03/13/17 14:35	03/14/17 03:09	1
Copper	9.8		1.7	0.19	mg/Kg	☼	03/13/17 14:35	03/14/17 17:37	1
Magnesium	7700	B	17	3.2	mg/Kg	☼	03/13/17 14:35	03/14/17 03:09	1
Nickel	12		3.5	0.11	mg/Kg	☼	03/13/17 14:35	03/14/17 03:09	1
Sodium	130	J B	430	51	mg/Kg	☼	03/13/17 14:35	03/14/17 03:09	1
Zinc	50		2.6	0.34	mg/Kg	☼	03/13/17 14:35	03/14/17 03:09	1

Client Sample ID: RC4-DUP01-0.25

Date Collected: 03/10/17 00:00

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-7

Matrix: Solid

Percent Solids: 77.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	99	B	0.91	0.094	mg/Kg	☼	03/13/17 14:35	03/14/17 03:12	1
Cadmium	0.17	J	0.45	0.037	mg/Kg	☼	03/13/17 14:35	03/14/17 03:12	1
Chromium	13		1.4	0.053	mg/Kg	☼	03/13/17 14:35	03/14/17 03:12	1
Lead	13		0.82	0.28	mg/Kg	☼	03/13/17 14:35	03/14/17 03:12	1
Boron	9.4	B	9.1	0.89	mg/Kg	☼	03/13/17 14:35	03/14/17 03:12	1
Selenium	ND		1.4	0.78	mg/Kg	☼	03/13/17 14:35	03/14/17 17:40	1
Silver	ND		0.91	0.15	mg/Kg	☼	03/13/17 14:35	03/14/17 03:12	1
Calcium	21000	B	45	13	mg/Kg	☼	03/13/17 14:35	03/14/17 03:12	1
Copper	12		1.8	0.20	mg/Kg	☼	03/13/17 14:35	03/14/17 17:40	1
Magnesium	9600	B	18	3.4	mg/Kg	☼	03/13/17 14:35	03/14/17 03:12	1
Nickel	13		3.6	0.12	mg/Kg	☼	03/13/17 14:35	03/14/17 03:12	1
Sodium	270	J B	450	54	mg/Kg	☼	03/13/17 14:35	03/14/17 03:12	1
Zinc	54		2.7	0.36	mg/Kg	☼	03/13/17 14:35	03/14/17 03:12	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: RC4-HEL06-0.25

Date Collected: 03/10/17 14:10

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.1		0.53	0.045	mg/Kg	☼	03/13/17 14:35	03/14/17 11:53	1

Lab Sample ID: 280-94768-1

Matrix: Solid

Percent Solids: 80.8

Client Sample ID: RC4-CLU07-0.25

Date Collected: 03/10/17 14:20

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.7		0.64	0.054	mg/Kg	☼	03/13/17 14:35	03/14/17 12:23	1

Lab Sample ID: 280-94768-2

Matrix: Solid

Percent Solids: 81.3

Client Sample ID: RC4-HEL08-0.25

Date Collected: 03/10/17 15:45

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.2		0.49	0.041	mg/Kg	☼	03/13/17 14:35	03/14/17 12:27	1

Lab Sample ID: 280-94768-3

Matrix: Solid

Percent Solids: 85.8

Client Sample ID: RC4-CLU09-0.25

Date Collected: 03/10/17 15:55

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.9		0.54	0.045	mg/Kg	☼	03/13/17 14:35	03/14/17 12:31	1

Lab Sample ID: 280-94768-4

Matrix: Solid

Percent Solids: 76.4

Client Sample ID: RC4-HEL10-0.25

Date Collected: 03/11/17 09:20

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.3		0.51	0.043	mg/Kg	☼	03/13/17 14:35	03/14/17 12:35	1

Lab Sample ID: 280-94768-5

Matrix: Solid

Percent Solids: 92.8

Client Sample ID: RC4-CLU11-0.25

Date Collected: 03/11/17 09:35

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.4		0.50	0.042	mg/Kg	☼	03/13/17 14:35	03/14/17 12:38	1

Lab Sample ID: 280-94768-6

Matrix: Solid

Percent Solids: 82.3

Client Sample ID: RC4-DUP01-0.25

Date Collected: 03/10/17 00:00

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.8		0.67	0.056	mg/Kg	☼	03/13/17 14:35	03/14/17 12:42	1

Lab Sample ID: 280-94768-7

Matrix: Solid

Percent Solids: 77.3

Method: 7471A - Mercury (CVAA)

Client Sample ID: RC4-HEL06-0.25

Date Collected: 03/10/17 14:10

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.023	0.0075	mg/Kg	☼	03/14/17 12:14	03/14/17 21:01	1

Lab Sample ID: 280-94768-1

Matrix: Solid

Percent Solids: 80.8

Client Sample ID: RC4-CLU07-0.25

Date Collected: 03/10/17 14:20

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	J	0.022	0.0070	mg/Kg	☼	03/14/17 12:14	03/14/17 21:08	1

Lab Sample ID: 280-94768-2

Matrix: Solid

Percent Solids: 81.3

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: RC4-HEL08-0.25

Date Collected: 03/10/17 15:45

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.013	J	0.023	0.0074	mg/Kg	☼	03/14/17 12:14	03/14/17 21:10	1

Lab Sample ID: 280-94768-3

Matrix: Solid

Percent Solids: 85.8

Client Sample ID: RC4-CLU09-0.25

Date Collected: 03/10/17 15:55

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.012	J	0.026	0.0085	mg/Kg	☼	03/14/17 12:14	03/14/17 21:13	1

Lab Sample ID: 280-94768-4

Matrix: Solid

Percent Solids: 76.4

Client Sample ID: RC4-HEL10-0.25

Date Collected: 03/11/17 09:20

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018	J	0.019	0.0063	mg/Kg	☼	03/14/17 12:14	03/14/17 21:15	1

Lab Sample ID: 280-94768-5

Matrix: Solid

Percent Solids: 92.8

Client Sample ID: RC4-CLU11-0.25

Date Collected: 03/11/17 09:35

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0078	J	0.023	0.0073	mg/Kg	☼	03/14/17 12:14	03/14/17 21:17	1

Lab Sample ID: 280-94768-6

Matrix: Solid

Percent Solids: 82.3

Client Sample ID: RC4-DUP01-0.25

Date Collected: 03/10/17 00:00

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	J	0.024	0.0077	mg/Kg	☼	03/14/17 12:14	03/14/17 21:20	1

Lab Sample ID: 280-94768-7

Matrix: Solid

Percent Solids: 77.3

General Chemistry

Client Sample ID: RC4-HEL06-0.25

Date Collected: 03/10/17 14:10

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	5.8	J	6.1	2.4	mg/Kg	☼	03/16/17 20:44	03/17/17 00:15	1
Chromium, trivalent	9.2		6.2	2.5	mg/Kg	☼		03/17/17 00:15	1
Percent Moisture	19.2		0.1	0.1	%			03/15/17 10:04	1
Percent Solids	80.8		0.1	0.1	%			03/15/17 10:04	1

Lab Sample ID: 280-94768-1

Matrix: Solid

Percent Solids: 80.8

Client Sample ID: RC4-CLU07-0.25

Date Collected: 03/10/17 14:20

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	5.8	J	6.0	2.4	mg/Kg	☼	03/16/17 20:44	03/17/17 00:15	1
Chromium, trivalent	6.2		6.1	2.5	mg/Kg	☼		03/17/17 00:15	1
Percent Moisture	18.7		0.1	0.1	%			03/15/17 10:04	1
Percent Solids	81.3		0.1	0.1	%			03/15/17 10:04	1

Lab Sample ID: 280-94768-2

Matrix: Solid

Percent Solids: 81.3

Client Sample ID: RC4-HEL08-0.25

Date Collected: 03/10/17 15:45

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	7.3	F1	5.7	2.3	mg/Kg	☼	03/16/17 20:44	03/17/17 00:15	1

Lab Sample ID: 280-94768-3

Matrix: Solid

Percent Solids: 85.8

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

General Chemistry (Continued)

Client Sample ID: RC4-HEL08-0.25

Date Collected: 03/10/17 15:45

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-3

Matrix: Solid

Percent Solids: 85.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent	6.7		5.8	2.3	mg/Kg	☼		03/17/17 00:15	1
Percent Moisture	14.2		0.1	0.1	%			03/15/17 10:04	1
Percent Solids	85.8		0.1	0.1	%			03/15/17 10:04	1

Client Sample ID: RC4-CLU09-0.25

Date Collected: 03/10/17 15:55

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-4

Matrix: Solid

Percent Solids: 76.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	6.2	J	6.5	2.6	mg/Kg	☼	03/16/17 20:44	03/17/17 00:15	1
Chromium, trivalent	5.8	J	6.5	2.6	mg/Kg	☼		03/17/17 00:15	1
Percent Moisture	23.6		0.1	0.1	%			03/15/17 10:04	1
Percent Solids	76.4		0.1	0.1	%			03/15/17 10:04	1

Client Sample ID: RC4-HEL10-0.25

Date Collected: 03/11/17 09:20

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-5

Matrix: Solid

Percent Solids: 92.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	5.5		5.3	2.1	mg/Kg	☼	03/16/17 20:44	03/17/17 00:15	1
Chromium, trivalent	6.5		5.4	2.2	mg/Kg	☼		03/17/17 00:15	1
Percent Moisture	7.2		0.1	0.1	%			03/15/17 10:04	1
Percent Solids	92.8		0.1	0.1	%			03/15/17 10:04	1

Client Sample ID: RC4-CLU11-0.25

Date Collected: 03/11/17 09:35

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-6

Matrix: Solid

Percent Solids: 82.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	4.6	J	6.0	2.4	mg/Kg	☼	03/16/17 20:44	03/17/17 00:15	1
Chromium, trivalent	6.4		6.1	2.4	mg/Kg	☼		03/17/17 00:15	1
Percent Moisture	17.7		0.1	0.1	%			03/15/17 10:04	1
Percent Solids	82.3		0.1	0.1	%			03/15/17 10:04	1

Client Sample ID: RC4-DUP01-0.25

Date Collected: 03/10/17 00:00

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-7

Matrix: Solid

Percent Solids: 77.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	5.8	J	6.3	2.5	mg/Kg	☼	03/16/17 20:44	03/17/17 00:15	1
Chromium, trivalent	7.2		6.5	2.6	mg/Kg	☼		03/17/17 00:15	1
Percent Moisture	22.7		0.1	0.1	%			03/15/17 10:04	1
Percent Solids	77.3		0.1	0.1	%			03/15/17 10:04	1

General Chemistry - Soluble

Client Sample ID: RC4-HEL06-0.25

Date Collected: 03/10/17 14:10

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-1

Matrix: Solid

Percent Solids: 80.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	8.4	HF	0.1	0.1	SU			03/13/17 13:38	1
Temperature	21.5	HF	1.0	1.0	Degrees C			03/13/17 13:38	1
Electrical Conductivity	0.38		0.010	0.010	mmhos/cm		03/16/17 12:04	03/16/17 12:20	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

General Chemistry - Soluble

Client Sample ID: RC4-CLU07-0.25

Date Collected: 03/10/17 14:20

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	8.5	HF	0.1	0.1	SU			03/13/17 13:38	1
Temperature	21.9	HF	1.0	1.0	Degrees C			03/13/17 13:38	1
Electrical Conductivity	0.38		0.010	0.010	mmhos/cm		03/16/17 12:04	03/16/17 12:20	1

Lab Sample ID: 280-94768-2

Matrix: Solid

Percent Solids: 81.3

Client Sample ID: RC4-HEL08-0.25

Date Collected: 03/10/17 15:45

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	9.1	HF	0.1	0.1	SU			03/13/17 13:38	1
Temperature	21.3	HF	1.0	1.0	Degrees C			03/13/17 13:38	1
Electrical Conductivity	0.84		0.010	0.010	mmhos/cm		03/16/17 12:04	03/16/17 12:20	1

Lab Sample ID: 280-94768-3

Matrix: Solid

Percent Solids: 85.8

Client Sample ID: RC4-CLU09-0.25

Date Collected: 03/10/17 15:55

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	8.0	HF	0.1	0.1	SU			03/13/17 13:38	1
Temperature	22.1	HF	1.0	1.0	Degrees C			03/13/17 13:38	1
Electrical Conductivity	0.53		0.010	0.010	mmhos/cm		03/16/17 12:04	03/16/17 12:20	1

Lab Sample ID: 280-94768-4

Matrix: Solid

Percent Solids: 76.4

Client Sample ID: RC4-HEL10-0.25

Date Collected: 03/11/17 09:20

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	9.5	HF	0.1	0.1	SU			03/13/17 13:38	1
Temperature	21.3	HF	1.0	1.0	Degrees C			03/13/17 13:38	1
Electrical Conductivity	0.48		0.010	0.010	mmhos/cm		03/16/17 12:04	03/16/17 12:20	1

Lab Sample ID: 280-94768-5

Matrix: Solid

Percent Solids: 92.8

Client Sample ID: RC4-CLU11-0.25

Date Collected: 03/11/17 09:35

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	8.5	HF	0.1	0.1	SU			03/13/17 13:38	1
Temperature	22.2	HF	1.0	1.0	Degrees C			03/13/17 13:38	1
Electrical Conductivity	0.32		0.010	0.010	mmhos/cm		03/16/17 12:04	03/16/17 12:20	1

Lab Sample ID: 280-94768-6

Matrix: Solid

Percent Solids: 82.3

Client Sample ID: RC4-DUP01-0.25

Date Collected: 03/10/17 00:00

Date Received: 03/11/17 20:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	8.2	HF	0.1	0.1	SU			03/13/17 13:38	1
Temperature	22.5	HF	1.0	1.0	Degrees C			03/13/17 13:38	1
Electrical Conductivity	0.47		0.010	0.010	mmhos/cm		03/16/17 12:04	03/16/17 12:20	1

Lab Sample ID: 280-94768-7

Matrix: Solid

Percent Solids: 77.3

TestAmerica Denver

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate v eco7ery (Acceptance Limits)			
		12DCF (58-130)	TOL (80-126)	BRB (E6-12E)	DBRM (E5-121)
280-94768-1	RC4-HEL06-0.25	117	94	98	109
280-94768-3	RC4-HEL08-0.25	130	108	107	120
280-94768-5	RC4-HEL10-0.25	108	89	93	102
LCS 280-365288/1-A	Lab Control Sample	92	93	87	99
LCSD 280-365288/2-A	Lab Control Sample Dup	95	92	88	102
MB 280-365288/3-A	Method Blank	99	91	88	102
Surrogate Legend					
12DCE = 1,2-Dichloroethane-d4 (Surr)					
TOL = Toluene-d8 (Surr)					
BFB = 4-Bromofluorobenzene (Surr)					
DBFM = Dibromofluoromethane (Surr)					

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate v eco7ery (Acceptance Limits)			
		12DCF (52-195)	TOL (65-195)	BRB (65-195)	DBRM (65-195)
280-94768-2	RC4-CLU07-0.25	108 D	134 D	131 D	90 D
280-94768-4	RC4-CLU09-0.25	115 D	147 X D	128 D	86 D
280-94768-6	RC4-CLU11-0.25	110 D	150 X D	146 X D	101 D
280-94768-7	RC4-DUP01-0.25	114 D	150 X D	137 X D	90 D
LCS 280-365366/2-A	Lab Control Sample	90	97	97	94
MB 280-365366/1-A	Method Blank	94	100	105	90
Surrogate Legend					
12DCE = 1,2-Dichloroethane-d4 (Surr)					
TOL = Toluene-d8 (Surr)					
BFB = 4-Bromofluorobenzene (Surr)					
DBFM = Dibromofluoromethane (Surr)					

Method: 82E0D SIM - Semi7olatile Organic Compounds (GC/MS SIM)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate v eco7ery (Acceptance Limits)		
		RBP (94-120)	NBZ (32-120)	TPH (95-123)
280-94768-1	RC4-HEL06-0.25	74	93	62
280-94768-2 - DL	RC4-CLU07-0.25	314 X D	32505 X D	320 X D
280-94768-2	RC4-CLU07-0.25	254 X D	30225 X D	366 X D
280-94768-3	RC4-HEL08-0.25	79	94	71
280-94768-3 MS	RC4-HEL08-0.25	76	96	68
280-94768-3 MSD	RC4-HEL08-0.25	67	80	59
280-94768-4	RC4-CLU09-0.25	194 X D	23784 X D	194 X D
280-94768-4 - DL	RC4-CLU09-0.25	250 X D	25511 X D	0 X D
280-94768-5	RC4-HEL10-0.25	77	93	72

TestAmerica Denver

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

Method: 82E0D SIM - Semi7olatile Organic Compounds (GC/MS SIM) (Continued)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate v eco7ery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	RBP (94-120)	NBZ (32-120)	TPH (95-123)
280-94768-6	RC4-CLU11-0.25	111 D	4981 X D	112 D
280-94768-7	RC4-DUP01-0.25	207 X D	23899 X D	296 X D
280-94768-7 - DL	RC4-DUP01-0.25	292 X D	30607 X D	304 X D
LCS 280-365159/2-A	Lab Control Sample	81	92	77
MB 280-365159/1-A	Method Blank	74	85	79
Surrogate Legend				
FBP = 2-Fluorobiphenyl				
NBZ = Nitrobenzene-d5				
TPH = Terphenyl-d14				

Method: 8015C - Nonhalogenated Organics using GC/RID -Modified (Gasoline v ange Organics)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate v eco7ery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	TRT1 (EE-129)		
280-94768-1	RC4-HEL06-0.25	89		
280-94768-2	RC4-CLU07-0.25	9077 D X		
280-94768-3	RC4-HEL08-0.25	97		
280-94768-4	RC4-CLU09-0.25	2910 D X		
280-94768-5	RC4-HEL10-0.25	85		
280-94768-6	RC4-CLU11-0.25	214 D X		
280-94768-7	RC4-DUP01-0.25	8128 D X		
LCS 280-365286/2-A	Lab Control Sample	92		
LCSD 280-365286/3-A	Lab Control Sample Dup	90		
MB 280-365286/1-A	Method Blank	88		
Surrogate Legend				
TFT = a,a,a-Trifluorotoluene				

Method: 8015C - Nonhalogenated Organics using GC/RID -Modified (Diesel v ange Organics)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate v eco7ery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	OTPH1 (34-115)		
280-94768-1	RC4-HEL06-0.25	60		
280-94768-3	RC4-HEL08-0.25	73		
280-94768-4	RC4-CLU09-0.25	1377 X D		
280-94768-5	RC4-HEL10-0.25	72		
280-94768-5 MS	RC4-HEL10-0.25	75		
280-94768-5 MSD	RC4-HEL10-0.25	79		
280-94768-6	RC4-CLU11-0.25	108		
280-94768-7	RC4-DUP01-0.25	2060 X D		
LCS 280-365157/2-B	Lab Control Sample	79		
MB 280-365157/1-B	Method Blank	84		
Surrogate Legend				

TestAmerica Denver

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

OTPH = o-Terphenyl (Surr)

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QC Sample Results

Instrument: uStec I oSgntiSp I or. P
 Project: uStec I XR - y aSpn Q B

TestAmerica Job ID: 280-94618-C

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

Lab Sample ID: MB 280-365288/3-4

MatriA: Solid

4 nalTsis Batch: 3652N2

Client Sample ID: Method Blank

xrep PTpe: Potal/y 4

xrep Batch: 365288

4 nalTte	MB Result	MB Qualifier	RL	MDL	Unit	D	xprepared	4 nalTzed	Dil Fac
zeSkeSe	5D		0R0N0	0R0046	mpVp		0EVE06 00:00	0EVE06 C2:4E	C
ht7, rbeSkeSe	5D		0R0N0	0R0016	mpVp		0EVE06 00:00	0EVE06 C2:4E	C
TorgeSe	5D		0R0N0	0R0019	mpVp		0EVE06 00:00	0EVE06 C2:4E	C
m-R, reSe F . -R, reSe	5D		0R02N	0R000	mpVp		0EVE06 00:00	0EVE06 C2:4E	C
o-R, reSe	5D		0R02N	0R001C	mpVp		0EVE06 00:00	0EVE06 C2:4E	C
R, reSesOTotan	5D		0R0N0	0R001C	mpVp		0EVE06 00:00	0EVE06 C2:4E	C

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		58 - 140	03/13/17 11:00	03/13/17 12:43	1
Toluene-d8 (Surr)	91		80 - 126	03/13/17 11:00	03/13/17 12:43	1
4-Bromofluorobenzene (Surr)	88		76 - 127	03/13/17 11:00	03/13/17 12:43	1
Dibromofluoromethane (Surr)	102		75 - 121	03/13/17 11:00	03/13/17 12:43	1

Lab Sample ID: LCS 280-365288/1-4

MatriA: Solid

4 nalTsis Batch: 3652N2

Client Sample ID: Lab Control Sample

xrep PTpe: Potal/y 4

xrep Batch: 365288

4 nalTte	Spike 4 dded	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
zeSkeSe	0R0N0	0R042N		mpVp		8N	6N- CEN
ht7, rbeSkeSe	0R0N0	0R0E96		mpVp		69	6E- C2N
TorgeSe	0R0N0	0R042E		mpVp		8N	66- C22
m-R, reSe F . -R, reSe	0R0N0	0R0E92		mpVp		68	66- CEN
o-R, reSe	0R0N0	0R0401		mpVp		8C	6N- CEN
R, reSesOTotan	0R00	0R0698		mpVp		80	61- CEN

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		58 - 140
Toluene-d8 (Surr)	93		80 - 126
4-Bromofluorobenzene (Surr)	87		76 - 127
Dibromofluoromethane (Surr)	99		75 - 121

Lab Sample ID: LCSD 280-365288/2-4

MatriA: Solid

4 nalTsis Batch: 3652N2

Client Sample ID: Lab Control Sample Dup

xrep PTpe: Potal/y 4

xrep Batch: 365288

4 nalTte	Spike 4 dded	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RxD	Limit
zeSkeSe	0R0N0	0R04NE		mpVp		9C	6N- CEN	1	20
ht7, rbeSkeSe	0R0N0	0R04CN		mpVp		8E	6E- C2N	4	20
TorgeSe	0R0N0	0R04NN		mpVp		9C	66- C22	6	20
m-R, reSe F . -R, reSe	0R0N0	0R0400		mpVp		82	66- CEN	4	20
o-R, reSe	0R0N0	0R0429		mpVp		81	6N- CEN	N	20
R, reSesOTotan	0R00	0R08E9		mpVp		84	61- CEN	N	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		58 - 140
Toluene-d8 (Surr)	92		80 - 126
4-Bromofluorobenzene (Surr)	88		76 - 127

TestAmerica DeS&er

QC Sample Results

Instrument: LSCSD
 Project: LSCSD - 280-94618-C

TestAmerica Job ID: 280-94618-C

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

Lab Sample ID: LSCSD 280-365288/2-4
 Matrix: Solid
 4 nAlTsis Batch: 3652N2

Client Sample ID: Lab Control Sample Dup
 xrep PTpe: Potal/y 4
 xrep Batch: 365288

Surrogate	LSCSD %Recovery	LSCSD Qualifier	Limits
Dibromofluoromethane (Surr)	102		75 - 121

Lab Sample ID: MB 280-365366/1-4
 Matrix: Solid
 4 nAlTsis Batch: 36552H

Client Sample ID: Method Blank
 xrep PTpe: Potal/y 4
 xrep Batch: 365366

4 nAlTte	MB Result	MB Qualifier	RL	MDL	Unit	D	xrepared	4 nAlTzed	Dil Fac
zeSKeSe	5D		0F2N	0R04N	mpVp		0EVC4V06 08:N1	0EVC4V06 C0:2E	C
ht7, rbeSKeSe	5D		0F2N	0R0E4	mpVp		0EVC4V06 08:N1	0EVC4V06 C0:2E	C
TorgeSe	5D		0F2N	0R0E9	mpVp		0EVC4V06 08:N1	0EVC4V06 C0:2E	C
m-R, reSe F . -R, reSe	5D		0F2N	0R069	mpVp		0EVC4V06 08:N1	0EVC4V06 C0:2E	C
o-R, reSe	5D		0RCE	0R0EN	mpVp		0EVC4V06 08:N1	0EVC4V06 C0:2E	C
R, reSesOTotan	5D		0F2N	0R0EN	mpVp		0EVC4V06 08:N1	0EVC4V06 C0:2E	C
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		52 - 135				03/14/17 08:56	03/14/17 10:23	1
Toluene-d8 (Surr)	100		65 - 135				03/14/17 08:56	03/14/17 10:23	1
4-Bromofluorobenzene (Surr)	105		65 - 135				03/14/17 08:56	03/14/17 10:23	1
Dibromofluoromethane (Surr)	90		65 - 135				03/14/17 08:56	03/14/17 10:23	1

Lab Sample ID: LCS 280-365366/2-4
 Matrix: Solid
 4 nAlTsis Batch: 36552H

Client Sample ID: Lab Control Sample
 xrep PTpe: Potal/y 4
 xrep Batch: 365366
 %Rec.

				Spike		LCS		LCS		%Rec.	
4 naITte				4 dded	Result	Qualifier	Unit	D	%Rec	Limits	
zeSkeSe				2R0C	0R0E		mpVp		91	1N- CEN	
ht7, rbeSkeSe				2R0C	2R01		mpVp		00E	1N- CEN	
TorgeSe				2R0C	2R0E		mpVp		00C	1N- CEN	
m-R, reSe F . -R, reSe				2R0C	2R06		mpVp		00E	1N- CEN	
o-R, reSe				2R0C	2R06		mpVp		00E	1N- CEN	
R, reSesOTotan				4R0C	4R04		mpVp		00E	1N- CEN	
LCS LCS											
Surrogate	%Recovery	Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	90		52 - 135								
Toluene-d8 (Surr)	97		65 - 135								
4-Bromofluorobenzene (Surr)	97		65 - 135								
Dibromofluoromethane (Surr)	94		65 - 135								

Method: 82H0D SIM - SemiEolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 280-36515N1-4
 Matrix: Solid
 4 nAlTsis Batch: 36590H

Client Sample ID: Method Blank
 xrep PTpe: Potal/y 4
 xrep Batch: 36515N

4 nAlTte	MB Result	MB Qualifier	RL	MDL	Unit	D	xrep	4 nAlTzed	Dil Fac
AceSa. 7t7eSe	5 D		0R0N0	0R00C1	mpVp		0EVC2V06 C9:CN	0EVC4V06 C4:29	C
AST7raceSe	0R006N2	J	0R0N0	0R0062	mpVp		0EVC2V06 C9:CN	0EVC4V06 C4:29	C

TestAmerica DeS&er

QC Sample Results

Instrument: uStec I oSgntiSp I or. P
 Project: uStec I XR - y aSpn Q B

TestAmerica Job ID: 280-94618-C

Method: 82HDD SIM - SemiVolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 280-36515N1-4
 Matrix: Solid
 4 nalTsis Batch: 36590H

Client Sample ID: Method Blank
 xrep PTpe: Potal/y 4
 xrep Batch: 36515N

4 nalTte	MB Result	MB Qualifier	RL	MDL	Unit	D	xrepared	4 nalTzed	Dil Fac
zeSkolM[aSt7raceSe	5 D		0R0N0	0R0090	mpVp		0EV2V6 C9:CN	0EV4V6 C4:29	C
zeSkolM[. , reSe	5 D		0R0N0	0R0064	mpVp		0EV2V6 C9:CN	0EV4V6 C4:29	C
zeSkolM[]rgoraSt7eSe	5 D		0R0N0	0R00C2	mpVp		0EV2V6 C9:CN	0EV4V6 C4:29	C
zeSkolM[]rgoraSt7eSe	5 D		0R0N0	0R00C0	mpVp		0EV2V6 C9:CN	0EV4V6 C4:29	C
I 7r, seSe	5 D		0R0N0	0R00C0	mpVp		0EV2V6 C9:CN	0EV4V6 C4:29	C
DibeSkLa7GSt7raceSe	5 D		0R0N0	0R00CE	mpVp		0EV2V6 C9:CN	0EV4V6 C4:29	C
(rgoraSt7eSe	0R00C31	J	0R0N0	0R00C0	mpVp		0EV2V6 C9:CN	0EV4V6 C4:29	C
(rgoreSe	5 D		0R0N0	0R0046	mpVp		0EV2V6 C9:CN	0EV4V6 C4:29	C
IS) eSoM2(E-c) [. , reSe	5 D		0R0N0	0R00CC	mpVp		0EV2V6 C9:CN	0EV4V6 C4:29	C
5 a. 7t7areSe	5 D		0R0N0	0R00EE	mpVp		0EV2V6 C9:CN	0EV4V6 C4:29	C
j , reSe	0R0240	J	0R0N0	0R00CC	mpVp		0EV2V6 C9:CN	0EV4V6 C4:29	C

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	74		39 - 120	03/12/17 19:15	03/14/17 14:29	1
Nitrobenzene-d5	85		42 - 120	03/12/17 19:15	03/14/17 14:29	1
Terphenyl-d14	79		35 - 124	03/12/17 19:15	03/14/17 14:29	1

Lab Sample ID: LCS 280-36515N2-4
 Matrix: Solid
 4 nalTsis Batch: 36590H

Client Sample ID: Lab Control Sample
 xrep PTpe: Potal/y 4
 xrep Batch: 36515N
 %Rec.

4 nalTte	Spike 4 dded	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
AceSa. 7t7eSe	0R0E00	0R029E		mpVp		98	EN- C20
AS7raceSe	0R0E00	0R0299		mpVp		000	4E- C20
zeSkolM[aSt7raceSe	0R0E00	0R0E22		mpVp		006	E1 - C20
zeSkolM[. , reSe	0R0E00	0R0E26		mpVp		009	20 - C20
zeSkolM[]rgoraSt7eSe	0R0E00	0R0E22		mpVp		006	E6 - C20
zeSkolM[]rgoraSt7eSe	0R0E00	0R0E0C		mpVp		000	41 - C20
I 7r, seSe	0R0E00	0R0E24		mpVp		008	E4 - C20
DibeSkLa7GSt7raceSe	0R0E00	0R0298		mpVp		99	20 - C20
(rgoraSt7eSe	0R0E00	0R0292		mpVp		96	4N- C20
(rgoreSe	0R0E00	0R0E04		mpVp		00C	44 - C20
IS) eSoM2(E-c) [. , reSe	0R0E00	0R0E01		mpVp		002	20 - C26
5 a. 7t7areSe	0R0E00	0R0E0E		mpVp		004	44 - C20
j , reSe	0R0E00	0R0269		mpVp		9E	4E- C20

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	81		39 - 120
Nitrobenzene-d5	92		42 - 120
Terphenyl-d14	77		35 - 124

Lab Sample ID: 280-N9H68-3 MS
 Matrix: Solid
 4 nalTsis Batch: 36590H

Client Sample ID: RC9-7 v L08-0.25
 xrep PTpe: Potal/y 4
 xrep Batch: 36515N
 %Rec.

4 nalTte	Sample Result	Sample Qualifier	Spike 4 dded	MS Result	MS Qualifier	Unit	D	%Rec	Limits
AceSa. 7t7eSe	5 D		0R0EE4	0R0E01		mpVp	☼	92	EN- C20
AS7raceSe	5 D		0R0EE4	0R0ECN		mpVp	☼	94	4E- C20

TestAmerica DeS&er

QC Sample Results

Instrument: uStec I oSgntiSp I or. P
 Project: uStec I XR - y aSpn Q B

TestAmerica Job ID: 280-94618-C

Method: 82HDD SIM - SemiVolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 280-N9H68-3 MS

Matrix: Solid

4 nalTsis Batch: 36590H

Client Sample ID: RC9-7 v L08-0.25

xrep PTpe: Potal/y 4

xrep Batch: 36515N

4 nalTte	Sample Result	Sample Qualifier	Spike 4 dded	MS Result	MS Qualifier	Unit	D	%Rec	Limits
zeSkolM[aSt7raceSe	5 D		00EE4	00E49		mpV8p	*	00N	E1 - C20
zeSkolM[. , reSe	5 D		00EE4	00400		mpV8p	*	C20	20 - C20
zeSkolM[]rgoraSt7eSe	5 D		00EE4	00E69		mpV8p	*	004	E6 - C20
zeSkolM[]rgoraSt7eSe	5 D		00EE4	00EN6		mpV8p	*	006	41 - C20
I 7r, seSe	5 D		00EE4	00END		mpV8p	*	00N	E4 - C20
DibeSkLa7GSt7raceSe	5 D		00EE4	00E80		mpV8p	*	004	20 - C20
(rgoraSt7eSe	5 D		00EE4	00298		mpV8p	*	89	4N - C20
(rgoreSe	5 D		00EE4	00299		mpV8p	*	90	44 - C20
IS) eSoM2(C-c) [. , reSe	5 D		00EE4	00404		mpV8p	*	C2C	20 - C26
5 a. 7t7areSe	00026 J		00EE4	00EN4		mpV8p	*	98	44 - C20
j , reSe	5 D		00EE4	0028C		mpV8p	*	84	4E - C20

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl	76		39 - 120
Nitrobenzene-d5	96		42 - 120
Terphenyl-d14	68		35 - 124

Lab Sample ID: 280-N9H68-3 MSD

Matrix: Solid

4 nalTsis Batch: 36590H

Client Sample ID: RC9-7 v L08-0.25

xrep PTpe: Potal/y 4

xrep Batch: 36515N

4 nalTte	Sample Result	Sample Qualifier	Spike 4 dded	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RxD	Limit
AceSa. 7t7eSe	5 D		00EE8	00268		mpV8p	*	82	EN - C20	00	N0
ASt7raceSe	5 D		00EE8	00280		mpV8p	*	8E	4E - C20	C2	N0
zeSkolM[aSt7raceSe	5 D		00EE8	00E09		mpV8p	*	9C	E1 - C20	C2	40
zeSkolM[. , reSe	5 D		00EE8	00E4N		mpV8p	*	002	20 - C20	CN	E0
zeSkolM[]rgoraSt7eSe	5 D		00EE8	00E28		mpV8p	*	96	E6 - C20	C4	28
zeSkolM[]rgoraSt7eSe	5 D		00EE8	00EC2		mpV8p	*	92	41 - C20	0E	28
I 7r, seSe	5 D		00EE8	00E01		mpV8p	*	9C	E4 - C20	0E	4C
DibeSkLa7GSt7raceSe	5 D		00EE8	00EE2		mpV8p	*	98	20 - C20	C4	2N
(rgoraSt7eSe	5 D		00EE8	0021N		mpV8p	*	68	4N - C20	C2	E0
(rgoreSe	5 D		00EE8	0026E		mpV8p	*	8C	44 - C20	9	N0
IS) eSoM2(C-c) [. , reSe	5 D		00EE8	00EE9		mpV8p	*	000	20 - C26	C8	N0
5 a. 7t7areSe	00026 J		00EE8	00E01		mpV8p	*	8E	44 - C20	C4	N0
j , reSe	5 D		00EE8	00249		mpV8p	*	64	4E - C20	C2	E0

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl	67		39 - 120
Nitrobenzene-d5	80		42 - 120
Terphenyl-d14	59		35 - 124

TestAmerica DeS&er

QC Sample Results

Instrument: utastec I oSgntiSp I or. P
 Project: utastec I XR - y aSpn Q B

TestAmerica Job ID: 280-94618-C

Method: 8015C - y onhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Lab Sample ID: MB 280-365286/1-4

MatriA: Solid

4 nalTsis Batch: 365906

Client Sample ID: Method Blank

xrep PTpe: Potal/y 4

xrep Batch: 365286

4 nalTte	MB Result	MB Qualifier	RL	MDL	Unit	D	xrepared	4 nalTzed	Dil Fac
Dy B U 1-I OOG	5D		Q2	0FE	mpVp		0EVC06 C1:02	0EVC06 00:09	C
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	88		77 - 123				03/13/17 16:02	03/15/17 00:09	1

Lab Sample ID: LCS 280-365286/2-4

MatriA: Solid

4 nalTsis Batch: 365906

Client Sample ID: Lab Control Sample

xrep PTpe: Potal/y 4

xrep Batch: 365286

4 nalTte	Spike 4 dded	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
Dy B U 1-I OOG	NPD	1R2		mpVp		C22	8N - ONE		
Surrogate	%Recovery	LCS Qualifier	Limits						
a,a,a-Trifluorotoluene	92		77 - 123						

Lab Sample ID: LCSD 280-365286/3-4

MatriA: Solid

4 nalTsis Batch: 365906

Client Sample ID: Lab Control Sample Dup

xrep PTpe: Potal/y 4

xrep Batch: 365286

4 nalTte	Spike 4 dded	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RxD	Limit
Dy B U 1-I OOG	NPD	1R2		mpVp		C22	8N - ONE	0	EO
Surrogate	%Recovery	LCSD Qualifier	Limits						
a,a,a-Trifluorotoluene	90		77 - 123						

Method: 8015C - y onhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 280-36515H1-B

MatriA: Solid

4 nalTsis Batch: 3655HN

Client Sample ID: Method Blank

xrep PTpe: Potal/y 4

xrep Batch: 36515H

4 nalTte	MB Result	MB Qualifier	RL	MDL	Unit	D	xrepared	4 nalTzed	Dil Fac
Dy B U 00-I 28G	5D		4R0	0F18	mpVp		0EVC206 C6:N6	0EVC06 C8:C9	C
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	84		49 - 115				03/12/17 17:57	03/15/17 18:19	1

Lab Sample ID: LCS 280-36515H2-B

MatriA: Solid

4 nalTsis Batch: 3655HN

Client Sample ID: Lab Control Sample

xrep PTpe: Potal/y 4

xrep Batch: 36515H

4 nalTte	Spike 4 dded	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
Dy B U 00-I 28G	11R6	N6R		mpVp		81	NE - CCN		
Surrogate	%Recovery	LCS Qualifier	Limits						
o-Terphenyl (Surr)	79		49 - 115						

TestAmerica DeS&er

QC Sample Results

Instrument: uStec I oSgntiSp I or. P
 Project: uStec I XR - y aSpn Q B

TestAmerica Job ID: 280-94618-C

Method: 8015C - y onhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: 280-N9H68-5 MS					Client Sample ID: RC9-7 v L10-0.25					
Matrix: Solid					x rep PTpe: Potal/y 4					
4 nalTsis Batch: 3655HN					x rep Batch: 36515H					
					%Rec.					
4 nalTte	Sample Result	Sample Qualifier	Spike 4 dded	MS Result	MS Qualifier	Unit	D	%Rec	Limits	
Dy B U O-I 28G	CO		6CF	6EP		mpVp	✱	88	N1 - CON	
Surrogate	MS %Recovery	MS Qualifier	Limits							
o-Terphenyl (Surr)	75		49 - 115							

Lab Sample ID: 280-N9H68-5 MSD						Client Sample ID: RC9-7 v L10-0.25					
Matrix: Solid						x rep PTpe: Potaly 4					
4 nalTsis Batch: 3655HN						x rep Batch: 36515H					
						%Rec.					
						Rx D					
4 nalTte	Sample Result	Sample Qualifier	Spike 4 dded	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	Rx D	Limit
Dy B U O-I 28G	CO		60P	18E		mpVp	✱	82	N1 - CON	6	2E

Method: 20B - Sodium 4 dsorption Ratio

Lab Sample ID: MB 280-365121/1-4				Client Sample ID: Method Blank						
Matrix: Solid				x rep PTpe: Soluble						
4 nalTsis Batch: 365556				x rep Batch: 365121						
4 nalTte	MB Result	MB Qualifier	RL	MDL	Unit	D	x repared	4 nalTzed	Dil Fac	
5a	5D		CO	CO	mpVp		0EVC06 C4:EN	0EVC06 09:4E	CO	
I a	5D		2P	2P	mpVp		0EVC06 C4:EN	0EVC06 09:4E	CO	
Up	5D		2P	2P	mpVp		0EVC06 C4:EN	0EVC06 09:4E	CO	
uo) igm A) sor. tioS y atio	5D		CP	CP	5 o k Sit		0EVC06 C4:EN	0EVC06 09:4E	CO	

Method: 6010C - Metals (ICx)

Lab Sample ID: MB 280-365211/1-4				Client Sample ID: Method Blank						
Matrix: Solid				x rep PTpe: Potaly 4						
4 nalTsis Batch: 3653H1				x rep Batch: 365211						
4 nalTte	MB Result	MB Qualifier	RL	MDL	Unit	D	x repared	4 nalTzed	Dil Fac	
zarigm	0P241	J	CP	0P0	mpVp		0EVC06 C4:EN	0EVC06 02:E2	C	
I a) migm	5D		0P0	0P4C	mpVp		0EVC06 C4:EN	0EVC06 02:E2	C	
I 7romigm	5D		CP	0P08	mpVp		0EVC06 C4:EN	0EVC06 02:E2	C	
Zea)	5D		0P0	0P0	mpVp		0EVC06 C4:EN	0EVC06 02:E2	C	
zoroS	EP00	J	CO	0P08	mpVp		0EVC06 C4:EN	0EVC06 02:E2	C	
uir&er	5D		CP	0P01	mpVp		0EVC06 C4:EN	0EVC06 02:E2	C	
I artigm	EP00	J	NO	C4	mpVp		0EVC06 C4:EN	0EVC06 02:E2	C	
UapSesigm	CP00	J	20	EP0	mpVp		0EVC06 C4:EN	0EVC06 02:E2	C	
5 icf en	5D		4P0	0P00	mpVp		0EVC06 C4:EN	0EVC06 02:E2	C	
uo) igm	62P	J	NO0	N9	mpVp		0EVC06 C4:EN	0EVC06 02:E2	C	
xiSc	5D		EP0	0P40	mpVp		0EVC06 C4:EN	0EVC06 02:E2	C	

TestAmerica DeS&er

QC Sample Results

Instrument: uataStec I oSsgntiSp I or. P
 Project/Write: uataStec I XR - y aSpn Q B

TestAmerica Job ID: 280-94618-C

Method: 6010C - Metals (ICx) (Continued)

Lab Sample ID: MB 280-365211/1-4

MatriA: Solid

4 nalTsis Batch: 365530

Client Sample ID: Method Blank

xrep PTpe: Potal/y 4

xrep Batch: 365211

4 nalTte	MB Result	MB Qualifier	RL	MDL	Unit	D	xrepared	4 nalTzed	Dil Fac
uereSigm	5D		CFN	0F81	mpV8p		0EVC06 C4:EN	0EVC06 C6:00	C
I o. . er	5D		2F0	0F22	mpV8p		0EVC06 C4:EN	0EVC06 C6:00	C

Lab Sample ID: LCS 280-365211/2-4

MatriA: Solid

4 nalTsis Batch: 3653H1

Client Sample ID: Lab Control Sample

xrep PTpe: Potal/y 4

xrep Batch: 365211

4 nalTte	Spike 4 dded	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
zarigm	200	C98		mpV8p		99	86 - C02
I a) migm	00F0	9F41		mpV8p		9N	86 - C00
I 7romigm	20F0	C9F0		mpV8p		98	84 - C04
Zea)	N0F0	48F4		mpV8p		96	81 - C00
zoroS	C00	94F0		mpV8p		9N	80 - C20
uir8er	NF00	NF06		mpV8p		C0C	86 - C04
5icfen	N0F0	41F0		mpV8p		94	86 - C00
xiSc	N0F0	44FN		mpV8p		89	61 - C04

Lab Sample ID: LCS 280-365211/2-4

MatriA: Solid

4 nalTsis Batch: 365530

Client Sample ID: Lab Control Sample

xrep PTpe: Potal/y 4

xrep Batch: 365211

4 nalTte	Spike 4 dded	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
uereSigm	200	C86		mpV8p		9E	8E - C00
I o. . er	2NF0	24F0		mpV8p		99	88 - C00

Lab Sample ID: 280-N9H68-1 MS

MatriA: Solid

4 nalTsis Batch: 3653H1

Client Sample ID: RC9-7 v L06-0.25

xrep PTpe: Potal/y 4

xrep Batch: 365211

4 nalTte	Sample Result	Sample Qualifier	Spike 4 dded	MS Result	MS Qualifier	Unit	D	%Rec	Limits
zarigm	CE0	z	C8N	EC0		mpV8p	✱	96	N2 - C09
I a) migm	0F22	J (2	9F2N	6F8N		mpV8p	✱	82	40 - CE0
I 7romigm	CN		C8FN	42FC		mpV8p	✱	C49	60 - 200
Zea)	CN		41F2	N0F0		mpV8p	✱	68	60 - 200
zoroS	CE z		92FN	92F0		mpV8p	✱	86	80 - C20
uir8er	5D (2		4F12	4FC8		mpV8p	✱	90	6N - C4C
5icfen	CN		41F2	N0F2		mpV8p	✱	69	1C - C21
xiSc	12		41F2	C00		mpV8p	✱	82	60 - 200

Lab Sample ID: 280-N9H68-1 MS

MatriA: Solid

4 nalTsis Batch: 365530

Client Sample ID: RC9-7 v L06-0.25

xrep PTpe: Potal/y 4

xrep Batch: 365211

4 nalTte	Sample Result	Sample Qualifier	Spike 4 dded	MS Result	MS Qualifier	Unit	D	%Rec	Limits
uereSigm	5D (2		C8N	C41		mpV8p	✱	69	61 - C04
I o. . er	CE		2FC	EEF0		mpV8p	✱	89	E6 - C86

TestAmerica DeS&er

QC Sample Results

Instrument: uataStec I oSgntiSp I or. P
 Project/Write: uataStec I XR - y aSpn Q B

TestAmerica Job ID: 280-94618-C

Method: 6010C - Metals (ICx) (Continued)

Lab Sample ID: 280-N9H68-1 MSD

MatriA: Solid

4 nalTsis Batch: 3653H1

Client Sample ID: RC9-7 vL06-0.25

xrep PTpe: Potal/y 4

xrep Batch: 365211

4 nalTte	Sample Result	Sample Qualifier	Spike 4 dded	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RxD	Limit
zarigm	CE0	z	226	E1N		mpV8p	✱	00E	N2 - CN9	C1	20
l a) migm	0P22	J (2	00FE	9P9E (2		mpV8p	✱	81	40 - CE0	2E	20
l 7romigm	CN		22P8	46P4		mpV8p	✱	04N	60 - 200	C2	20
Zea)	CN		N1P8	10P8		mpV8p	✱	8E	60 - 200	20	20
zoroS	CE z		00E	004		mpV8p	✱	89	80 - C20	20	20
uier	5 D (2		NP16	NPEC (2		mpV8p	✱	94	6N - C4C	24	20
5icfen	CN		N1P8	10PN		mpV8p	✱	8E	1C - C21	C8	20
xiSc	12		N1P8	00E		mpV8p	✱	89	60 - 200	C2	20

Lab Sample ID: 280-N9H68-1 MSD

MatriA: Solid

4 nalTsis Batch: 365530

Client Sample ID: RC9-7 vL06-0.25

xrep PTpe: Potal/y 4

xrep Batch: 365211

4 nalTte	Sample Result	Sample Qualifier	Spike 4 dded	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RxD	Limit
uereSigm	5 D (2		226	084 (2		mpV8p	✱	8C	61 - C04	2E	20
l o. . er	CE		28P4	E9P8		mpV8p	✱	92	E6 - C86	CN	20

Method: 60204 - Metals (ICx/MS)

Lab Sample ID: MB 280-365212/1-4

MatriA: Solid

4 nalTsis Batch: 365990

Client Sample ID: Method Blank

xrep PTpe: Potal/y 4

xrep Batch: 365212

4 nalTte	MB Result	MB Qualifier	RL	MDL	Unit	D	xrepared	4 nalTzed	Dil Fac
ArseSic	5 D		0P10	0P9NC	mpV8p		0EVC06 C4:EN	0EVC4V06 CC:4N	C

Lab Sample ID: LCS 280-365212/2-4

MatriA: Solid

4 nalTsis Batch: 365990

Client Sample ID: Lab Control Sample

xrep PTpe: Potal/y 4

xrep Batch: 365212

4 nalTte	Spike 4 dded	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
ArseSic	20P8	08P4		mpV8p		92	8E - 00C

Lab Sample ID: 280-N9H68-1 MS

MatriA: Solid

4 nalTsis Batch: 365990

Client Sample ID: RC9-7 vL06-0.25

xrep PTpe: Potal/y 4

xrep Batch: 365212

4 nalTte	Sample Result	Sample Qualifier	Spike 4 dded	MS Result	MS Qualifier	Unit	D	%Rec	Limits
ArseSic	6P8		C1P8	22P8		mpV8p	✱	89	8E - 00C

Lab Sample ID: 280-N9H68-1 MSD

MatriA: Solid

4 nalTsis Batch: 365990

Client Sample ID: RC9-7 vL06-0.25

xrep PTpe: Potal/y 4

xrep Batch: 365212

4 nalTte	Sample Result	Sample Qualifier	Spike 4 dded	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RxD	Limit
ArseSic	6P8		08P8	24PN		mpV8p	✱	9E	8E - 00C	0C	20

TestAmerica DeS&er

QC Sample Results

Instrument: utaStec I oSgntiSp I or. P
 Project/Write: utaStec I XR - y aSpn Q B

TestAmerica Job ID: 280-94618-C

Method: H9H14 - MercurT (CV44)

Lab Sample ID: MB 280-365338/1-4
 Matrix: Solid
 4 nalTsis Batch: 365508

Client Sample ID: Method Blank
 xrep PTpe: Potal/y 4
 xrep Batch: 365338

4 nalTte	MB Result	MB Qualifier	RL	MDL	Unit	D	xrepared	4 nalTzed	Dil Fac
Uercgr,	5 D		0R0C6	0R00NN	mpV8p		0EVC4V06 C2:04	0EVC4V06 20:N2	C

Lab Sample ID: LCS 280-365338/2-4
 Matrix: Solid
 4 nalTsis Batch: 365508

Client Sample ID: Lab Control Sample
 xrep PTpe: Potal/y 4
 xrep Batch: 365338
 %Rec.

4 nalTte	Spike 4 dded	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Uercgr,	0R4C6	0RE1E		mpV8p		86	86 - 000

Lab Sample ID: 280-N9H68-1 MS
 Matrix: Solid
 4 nalTsis Batch: 365508

Client Sample ID: RC9-7 v L06-0.25
 xrep PTpe: Potal/y 4
 xrep Batch: 365338
 %Rec.

4 nalTte	Sample Result	Sample Qualifier	Spike 4 dded	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Uercgr,	0R024		0R4E	0R84		mpV8p	✱	00E	86 - 000

Lab Sample ID: 280-N9H68-1 MSD
 Matrix: Solid
 4 nalTsis Batch: 365508

Client Sample ID: RC9-7 v L06-0.25
 xrep PTpe: Potal/y 4
 xrep Batch: 365338
 %Rec.

4 nalTte	Sample Result	Sample Qualifier	Spike 4 dded	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RxD	Limit
Uercgr,	0R024		0R406	0R89		mpV8p	✱	88	86 - 000	4	20

Method: H1N64 - Chromium, 7 eAaEalent

Lab Sample ID: MB 9N0-915128/1-4
 Matrix: Solid
 4 nalTsis Batch: 915150

Client Sample ID: Method Blank
 xrep PTpe: Potal/y 4
 xrep Batch: 915128

4 nalTte	MB Result	MB Qualifier	RL	MDL	Unit	D	xrepared	4 nalTzed	Dil Fac
I 7romigm07ev	5 D		N0	20	mpV8p		0EVC1V06 20:44	0EVC6V06 00:0N	C

Lab Sample ID: LCS I 9N0-915128/3-4
 Matrix: Solid
 4 nalTsis Batch: 915150

Client Sample ID: Lab Control Sample
 xrep PTpe: Potal/y 4
 xrep Batch: 915128
 %Rec.

4 nalTte	Spike 4 dded	LCSI Result	LCSI Qualifier	Unit	D	%Rec	Limits
I 7romigm07ev	14RE	N20		mpV8p		82	80 - C20

Lab Sample ID: LCSS 9N0-915128/2-4
 Matrix: Solid
 4 nalTsis Batch: 915150

Client Sample ID: Lab Control Sample
 xrep PTpe: Potal/y 4
 xrep Batch: 915128
 %Rec.

4 nalTte	Spike 4 dded	LCSS Result	LCSS Qualifier	Unit	D	%Rec	Limits
I 7romigm07ev	E9R4	EERN		mpV8p		8N	80 - C20

TestAmerica DeS&er

QC Sample Results

Instrument: utaStec I oSsgntiSp I or. P
 Project: White: utaStec I XR - y aSpn Q B

TestAmerica Job ID: 280-94618-C

Method: H1N64 - Chromium, 7 eAaEalent (Continued)

Lab Sample ID: 280-N9H68-3 MSI

Matrix: Solid

4 nalTsis Batch: 915150

Client Sample ID: RC9-7 v L08-0.25

x rep PTpe: Potat/y 4

x rep Batch: 915128

4 nalTte	Sample Result	Sample Qualifier	Spike 4 dded	MSI Result	MSI Qualifier	Unit	D	%Rec	Limits
I 7romigmO7ev	6PE	(C	6EP2	19PE		mpV8p	✱	8N	6N- C2N

Lab Sample ID: 280-N9H68-3 MSS

Matrix: Solid

4 nalTsis Batch: 915150

Client Sample ID: RC9-7 v L08-0.25

x rep PTpe: Potat/y 4

x rep Batch: 915128

4 nalTte	Sample Result	Sample Qualifier	Spike 4 dded	MSS Result	MSS Qualifier	Unit	D	%Rec	Limits
I 7romigmO7ev	6PE	(C	4NPE	40PE	(C	mpV8p	✱	62	6N- C2N

Lab Sample ID: 280-N9H68-2 DU

Matrix: Solid

4 nalTsis Batch: 915150

Client Sample ID: RC9-CLU0H-0.25

x rep PTpe: Potat/y 4

x rep Batch: 915128

4 nalTte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RxD	Limit
I 7romigmO7ev	NPE	J	NPE1	J	mpV8p	✱	9	20

Method: N095D - p7

Lab Sample ID: LCS 280-365223/1-4

Matrix: Solid

4 nalTsis Batch: 365269

Client Sample ID: Lab Control Sample

x rep PTpe: Soluble

4 nalTte	Spike 4 dded	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
. H a) /Pto 2N) ep I	6PE0	6PE		uk		000	96- C0E

Lab Sample ID: 280-N9H68-1 DU

Matrix: Solid

4 nalTsis Batch: 365269

Client Sample ID: RC9-7 v L06-0.25

x rep PTpe: Soluble

4 nalTte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RxD	Limit
. H a) /Pto 2N) ep I	8PE	H(	8PE		uk		C	N
Tem. eratgre	2CPN	H(	2CPN		Deprees I		0	N

Method: N0504 - Specific Conductance

Lab Sample ID: 280-N9H68-1 DU

Matrix: Solid

4 nalTsis Batch: 919NN0

Client Sample ID: RC9-7 v L06-0.25

x rep PTpe: Soluble

x rep Batch: 9193N3

4 nalTte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RxD	Limit
hrectricanl oS) gcti&it,	0PE8		0PE6N		mm7osVcm		0	00

TestAmerica DeS&er

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

GC/MS VOA

Prep Batch: 365288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Total/NA	Solid	5035	
280-94768-3	RC4-HEL08-0.25	Total/NA	Solid	5035	
280-94768-5	RC4-HEL10-0.25	Total/NA	Solid	5035	
MB 280-365288/3-A	Method Blank	Total/NA	Solid	5035	
LCS 280-365288/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 280-365288/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 365292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Total/NA	Solid	8260B	365288
280-94768-3	RC4-HEL08-0.25	Total/NA	Solid	8260B	365288
280-94768-5	RC4-HEL10-0.25	Total/NA	Solid	8260B	365288
MB 280-365288/3-A	Method Blank	Total/NA	Solid	8260B	365288
LCS 280-365288/1-A	Lab Control Sample	Total/NA	Solid	8260B	365288
LCSD 280-365288/2-A	Lab Control Sample Dup	Total/NA	Solid	8260B	365288

Prep Batch: 365366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-2	RC4-CLU07-0.25	Total/NA	Solid	5035	
280-94768-4	RC4-CLU09-0.25	Total/NA	Solid	5035	
280-94768-6	RC4-CLU11-0.25	Total/NA	Solid	5035	
280-94768-7	RC4-DUP01-0.25	Total/NA	Solid	5035	
MB 280-365366/1-A	Method Blank	Total/NA	Solid	5035	
LCS 280-365366/2-A	Lab Control Sample	Total/NA	Solid	5035	

Analysis Batch: 365527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-2	RC4-CLU07-0.25	Total/NA	Solid	8260B	365366
280-94768-4	RC4-CLU09-0.25	Total/NA	Solid	8260B	365366
280-94768-6	RC4-CLU11-0.25	Total/NA	Solid	8260B	365366
280-94768-7	RC4-DUP01-0.25	Total/NA	Solid	8260B	365366
MB 280-365366/1-A	Method Blank	Total/NA	Solid	8260B	365366
LCS 280-365366/2-A	Lab Control Sample	Total/NA	Solid	8260B	365366

GC/MS Semi VOA

Prep Batch: 365159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Total/NA	Solid	3546	
280-94768-2 - DL	RC4-CLU07-0.25	Total/NA	Solid	3546	
280-94768-2	RC4-CLU07-0.25	Total/NA	Solid	3546	
280-94768-3	RC4-HEL08-0.25	Total/NA	Solid	3546	
280-94768-4 - DL	RC4-CLU09-0.25	Total/NA	Solid	3546	
280-94768-4	RC4-CLU09-0.25	Total/NA	Solid	3546	
280-94768-5	RC4-HEL10-0.25	Total/NA	Solid	3546	
280-94768-6	RC4-CLU11-0.25	Total/NA	Solid	3546	
280-94768-7	RC4-DUP01-0.25	Total/NA	Solid	3546	
280-94768-7 - DL	RC4-DUP01-0.25	Total/NA	Solid	3546	
MB 280-365159/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-365159/2-A	Lab Control Sample	Total/NA	Solid	3546	

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

GC/MS Semi VOA (Continued)

Prep Batch: 365159 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-3 MS	RC4-HEL08-0.25	Total/NA	Solid	3546	
280-94768-3 MSD	RC4-HEL08-0.25	Total/NA	Solid	3546	

Analysis Batch: 365407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Total/NA	Solid	8270D SIM	365159
280-94768-2	RC4-CLU07-0.25	Total/NA	Solid	8270D SIM	365159
280-94768-2 - DL	RC4-CLU07-0.25	Total/NA	Solid	8270D SIM	365159
280-94768-3	RC4-HEL08-0.25	Total/NA	Solid	8270D SIM	365159
280-94768-4	RC4-CLU09-0.25	Total/NA	Solid	8270D SIM	365159
280-94768-4 - DL	RC4-CLU09-0.25	Total/NA	Solid	8270D SIM	365159
280-94768-5	RC4-HEL10-0.25	Total/NA	Solid	8270D SIM	365159
280-94768-6	RC4-CLU11-0.25	Total/NA	Solid	8270D SIM	365159
280-94768-7	RC4-DUP01-0.25	Total/NA	Solid	8270D SIM	365159
280-94768-7 - DL	RC4-DUP01-0.25	Total/NA	Solid	8270D SIM	365159
MB 280-365159/1-A	Method Blank	Total/NA	Solid	8270D SIM	365159
LCS 280-365159/2-A	Lab Control Sample	Total/NA	Solid	8270D SIM	365159
280-94768-3 MS	RC4-HEL08-0.25	Total/NA	Solid	8270D SIM	365159
280-94768-3 MSD	RC4-HEL08-0.25	Total/NA	Solid	8270D SIM	365159

GC VOA

Prep Batch: 365286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Total/NA	Solid	5035	
280-94768-2	RC4-CLU07-0.25	Total/NA	Solid	5035	
280-94768-3	RC4-HEL08-0.25	Total/NA	Solid	5035	
280-94768-4	RC4-CLU09-0.25	Total/NA	Solid	5035	
280-94768-5	RC4-HEL10-0.25	Total/NA	Solid	5035	
280-94768-6	RC4-CLU11-0.25	Total/NA	Solid	5035	
280-94768-7	RC4-DUP01-0.25	Total/NA	Solid	5035	
MB 280-365286/1-A	Method Blank	Total/NA	Solid	5035	
LCS 280-365286/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 280-365286/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 365406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Total/NA	Solid	8015C	365286
MB 280-365286/1-A	Method Blank	Total/NA	Solid	8015C	365286
LCS 280-365286/2-A	Lab Control Sample	Total/NA	Solid	8015C	365286
LCSD 280-365286/3-A	Lab Control Sample Dup	Total/NA	Solid	8015C	365286

Analysis Batch: 365702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-2	RC4-CLU07-0.25	Total/NA	Solid	8015C	365286
280-94768-3	RC4-HEL08-0.25	Total/NA	Solid	8015C	365286
280-94768-5	RC4-HEL10-0.25	Total/NA	Solid	8015C	365286
280-94768-6	RC4-CLU11-0.25	Total/NA	Solid	8015C	365286
280-94768-7	RC4-DUP01-0.25	Total/NA	Solid	8015C	365286

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

GC VOA (Continued)

Analysis Batch: 365744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-4	RC4-CLU09-0.25	Total/NA	Solid	8015C	365286

GC Semi VOA

Prep Batch: 365157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Total/NA	Solid	3546	
280-94768-3	RC4-HEL08-0.25	Total/NA	Solid	3546	
280-94768-4	RC4-CLU09-0.25	Total/NA	Solid	3546	
280-94768-5	RC4-HEL10-0.25	Total/NA	Solid	3546	
280-94768-6	RC4-CLU11-0.25	Total/NA	Solid	3546	
280-94768-7	RC4-DUP01-0.25	Total/NA	Solid	3546	
MB 280-365157/1-B	Method Blank	Total/NA	Solid	3546	
LCS 280-365157/2-B	Lab Control Sample	Total/NA	Solid	3546	
280-94768-5 MS	RC4-HEL10-0.25	Total/NA	Solid	3546	
280-94768-5 MSD	RC4-HEL10-0.25	Total/NA	Solid	3546	

Cleanup Batch: 365320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Total/NA	Solid	3630M	365157
280-94768-3	RC4-HEL08-0.25	Total/NA	Solid	3630M	365157
280-94768-4	RC4-CLU09-0.25	Total/NA	Solid	3630M	365157
280-94768-5	RC4-HEL10-0.25	Total/NA	Solid	3630M	365157
280-94768-6	RC4-CLU11-0.25	Total/NA	Solid	3630M	365157
280-94768-7	RC4-DUP01-0.25	Total/NA	Solid	3630M	365157
MB 280-365157/1-B	Method Blank	Total/NA	Solid	3630M	365157
LCS 280-365157/2-B	Lab Control Sample	Total/NA	Solid	3630M	365157
280-94768-5 MS	RC4-HEL10-0.25	Total/NA	Solid	3630M	365157
280-94768-5 MSD	RC4-HEL10-0.25	Total/NA	Solid	3630M	365157

Analysis Batch: 365579

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Total/NA	Solid	8015C	365320
280-94768-3	RC4-HEL08-0.25	Total/NA	Solid	8015C	365320
280-94768-4	RC4-CLU09-0.25	Total/NA	Solid	8015C	365320
280-94768-5	RC4-HEL10-0.25	Total/NA	Solid	8015C	365320
280-94768-6	RC4-CLU11-0.25	Total/NA	Solid	8015C	365320
280-94768-7	RC4-DUP01-0.25	Total/NA	Solid	8015C	365320
MB 280-365157/1-B	Method Blank	Total/NA	Solid	8015C	365320
LCS 280-365157/2-B	Lab Control Sample	Total/NA	Solid	8015C	365320
280-94768-5 MS	RC4-HEL10-0.25	Total/NA	Solid	8015C	365320
280-94768-5 MSD	RC4-HEL10-0.25	Total/NA	Solid	8015C	365320

Metals

Prep Batch: 365121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Soluble	Solid	20B	
280-94768-2	RC4-CLU07-0.25	Soluble	Solid	20B	
280-94768-3	RC4-HEL08-0.25	Soluble	Solid	20B	

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

Metals (Continued)

Prep Batch: 365121 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-4	RC4-CLU09-0.25	Soluble	Solid	20B	
280-94768-5	RC4-HEL10-0.25	Soluble	Solid	20B	
280-94768-6	RC4-CLU11-0.25	Soluble	Solid	20B	
280-94768-7	RC4-DUP01-0.25	Soluble	Solid	20B	
MB 280-365121/1-A	Method Blank	Soluble	Solid	20B	

Prep Batch: 365211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Total/NA	Solid	3050B	
280-94768-2	RC4-CLU07-0.25	Total/NA	Solid	3050B	
280-94768-3	RC4-HEL08-0.25	Total/NA	Solid	3050B	
280-94768-4	RC4-CLU09-0.25	Total/NA	Solid	3050B	
280-94768-5	RC4-HEL10-0.25	Total/NA	Solid	3050B	
280-94768-6	RC4-CLU11-0.25	Total/NA	Solid	3050B	
280-94768-7	RC4-DUP01-0.25	Total/NA	Solid	3050B	
MB 280-365211/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 280-365211/2-A	Lab Control Sample	Total/NA	Solid	3050B	
280-94768-1 MS	RC4-HEL06-0.25	Total/NA	Solid	3050B	
280-94768-1 MSD	RC4-HEL06-0.25	Total/NA	Solid	3050B	

Prep Batch: 365212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Total/NA	Solid	3050B	
280-94768-2	RC4-CLU07-0.25	Total/NA	Solid	3050B	
280-94768-3	RC4-HEL08-0.25	Total/NA	Solid	3050B	
280-94768-4	RC4-CLU09-0.25	Total/NA	Solid	3050B	
280-94768-5	RC4-HEL10-0.25	Total/NA	Solid	3050B	
280-94768-6	RC4-CLU11-0.25	Total/NA	Solid	3050B	
280-94768-7	RC4-DUP01-0.25	Total/NA	Solid	3050B	
MB 280-365212/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 280-365212/2-A	Lab Control Sample	Total/NA	Solid	3050B	
280-94768-1 MS	RC4-HEL06-0.25	Total/NA	Solid	3050B	
280-94768-1 MSD	RC4-HEL06-0.25	Total/NA	Solid	3050B	

Prep Batch: 365338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Total/NA	Solid	7471A	
280-94768-2	RC4-CLU07-0.25	Total/NA	Solid	7471A	
280-94768-3	RC4-HEL08-0.25	Total/NA	Solid	7471A	
280-94768-4	RC4-CLU09-0.25	Total/NA	Solid	7471A	
280-94768-5	RC4-HEL10-0.25	Total/NA	Solid	7471A	
280-94768-6	RC4-CLU11-0.25	Total/NA	Solid	7471A	
280-94768-7	RC4-DUP01-0.25	Total/NA	Solid	7471A	
MB 280-365338/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 280-365338/2-A	Lab Control Sample	Total/NA	Solid	7471A	
280-94768-1 MS	RC4-HEL06-0.25	Total/NA	Solid	7471A	
280-94768-1 MSD	RC4-HEL06-0.25	Total/NA	Solid	7471A	

Analysis Batch: 365371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Total/NA	Solid	6010C	365211

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

Metals (Continued)

Analysis Batch: 365371 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-2	RC4-CLU07-0.25	Total/NA	Solid	6010C	365211
280-94768-3	RC4-HEL08-0.25	Total/NA	Solid	6010C	365211
280-94768-4	RC4-CLU09-0.25	Total/NA	Solid	6010C	365211
280-94768-5	RC4-HEL10-0.25	Total/NA	Solid	6010C	365211
280-94768-6	RC4-CLU11-0.25	Total/NA	Solid	6010C	365211
280-94768-7	RC4-DUP01-0.25	Total/NA	Solid	6010C	365211
MB 280-365211/1-A	Method Blank	Total/NA	Solid	6010C	365211
LCS 280-365211/2-A	Lab Control Sample	Total/NA	Solid	6010C	365211
280-94768-1 MS	RC4-HEL06-0.25	Total/NA	Solid	6010C	365211
280-94768-1 MSD	RC4-HEL06-0.25	Total/NA	Solid	6010C	365211

Analysis Batch: 365440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Total/NA	Solid	6020A	365212
280-94768-2	RC4-CLU07-0.25	Total/NA	Solid	6020A	365212
280-94768-3	RC4-HEL08-0.25	Total/NA	Solid	6020A	365212
280-94768-4	RC4-CLU09-0.25	Total/NA	Solid	6020A	365212
280-94768-5	RC4-HEL10-0.25	Total/NA	Solid	6020A	365212
280-94768-6	RC4-CLU11-0.25	Total/NA	Solid	6020A	365212
280-94768-7	RC4-DUP01-0.25	Total/NA	Solid	6020A	365212
MB 280-365212/1-A	Method Blank	Total/NA	Solid	6020A	365212
LCS 280-365212/2-A	Lab Control Sample	Total/NA	Solid	6020A	365212
280-94768-1 MS	RC4-HEL06-0.25	Total/NA	Solid	6020A	365212
280-94768-1 MSD	RC4-HEL06-0.25	Total/NA	Solid	6020A	365212

Analysis Batch: 365508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Total/NA	Solid	7471A	365338
280-94768-2	RC4-CLU07-0.25	Total/NA	Solid	7471A	365338
280-94768-3	RC4-HEL08-0.25	Total/NA	Solid	7471A	365338
280-94768-4	RC4-CLU09-0.25	Total/NA	Solid	7471A	365338
280-94768-5	RC4-HEL10-0.25	Total/NA	Solid	7471A	365338
280-94768-6	RC4-CLU11-0.25	Total/NA	Solid	7471A	365338
280-94768-7	RC4-DUP01-0.25	Total/NA	Solid	7471A	365338
MB 280-365338/1-A	Method Blank	Total/NA	Solid	7471A	365338
LCS 280-365338/2-A	Lab Control Sample	Total/NA	Solid	7471A	365338
280-94768-1 MS	RC4-HEL06-0.25	Total/NA	Solid	7471A	365338
280-94768-1 MSD	RC4-HEL06-0.25	Total/NA	Solid	7471A	365338

Analysis Batch: 365530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Total/NA	Solid	6010C	365211
280-94768-2	RC4-CLU07-0.25	Total/NA	Solid	6010C	365211
280-94768-3	RC4-HEL08-0.25	Total/NA	Solid	6010C	365211
280-94768-4	RC4-CLU09-0.25	Total/NA	Solid	6010C	365211
280-94768-5	RC4-HEL10-0.25	Total/NA	Solid	6010C	365211
280-94768-6	RC4-CLU11-0.25	Total/NA	Solid	6010C	365211
280-94768-7	RC4-DUP01-0.25	Total/NA	Solid	6010C	365211
MB 280-365211/1-A	Method Blank	Total/NA	Solid	6010C	365211
LCS 280-365211/2-A	Lab Control Sample	Total/NA	Solid	6010C	365211
280-94768-1 MS	RC4-HEL06-0.25	Total/NA	Solid	6010C	365211

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

Metals (Continued)

Analysis Batch: 365530 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1 MSD	RC4-HEL06-0.25	Total/NA	Solid	6010C	365211

Analysis Batch: 365556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Soluble	Solid	20B	365121
280-94768-2	RC4-CLU07-0.25	Soluble	Solid	20B	365121
280-94768-3	RC4-HEL08-0.25	Soluble	Solid	20B	365121
280-94768-4	RC4-CLU09-0.25	Soluble	Solid	20B	365121
280-94768-5	RC4-HEL10-0.25	Soluble	Solid	20B	365121
280-94768-6	RC4-CLU11-0.25	Soluble	Solid	20B	365121
280-94768-7	RC4-DUP01-0.25	Soluble	Solid	20B	365121
MB 280-365121/1-A	Method Blank	Soluble	Solid	20B	365121

General Chemistry

Leach Batch: 365223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Soluble	Solid	DI Leach	
280-94768-2	RC4-CLU07-0.25	Soluble	Solid	DI Leach	
280-94768-3	RC4-HEL08-0.25	Soluble	Solid	DI Leach	
280-94768-4	RC4-CLU09-0.25	Soluble	Solid	DI Leach	
280-94768-5	RC4-HEL10-0.25	Soluble	Solid	DI Leach	
280-94768-6	RC4-CLU11-0.25	Soluble	Solid	DI Leach	
280-94768-7	RC4-DUP01-0.25	Soluble	Solid	DI Leach	
LCS 280-365223/1-A	Lab Control Sample	Soluble	Solid	DI Leach	
280-94768-1 DU	RC4-HEL06-0.25	Soluble	Solid	DI Leach	

Analysis Batch: 365264

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Soluble	Solid	9045D	365223
280-94768-2	RC4-CLU07-0.25	Soluble	Solid	9045D	365223
280-94768-3	RC4-HEL08-0.25	Soluble	Solid	9045D	365223
280-94768-4	RC4-CLU09-0.25	Soluble	Solid	9045D	365223
280-94768-5	RC4-HEL10-0.25	Soluble	Solid	9045D	365223
280-94768-6	RC4-CLU11-0.25	Soluble	Solid	9045D	365223
280-94768-7	RC4-DUP01-0.25	Soluble	Solid	9045D	365223
LCS 280-365223/1-A	Lab Control Sample	Soluble	Solid	9045D	365223
280-94768-1 DU	RC4-HEL06-0.25	Soluble	Solid	9045D	365223

Analysis Batch: 365559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Total/NA	Solid	Moisture	
280-94768-2	RC4-CLU07-0.25	Total/NA	Solid	Moisture	
280-94768-3	RC4-HEL08-0.25	Total/NA	Solid	Moisture	
280-94768-4	RC4-CLU09-0.25	Total/NA	Solid	Moisture	
280-94768-5	RC4-HEL10-0.25	Total/NA	Solid	Moisture	
280-94768-6	RC4-CLU11-0.25	Total/NA	Solid	Moisture	
280-94768-7	RC4-DUP01-0.25	Total/NA	Solid	Moisture	

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

General Chemistry (Continued)

Prep Batch: 414393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Soluble	Solid	Sat Paste Ext	
280-94768-2	RC4-CLU07-0.25	Soluble	Solid	Sat Paste Ext	
280-94768-3	RC4-HEL08-0.25	Soluble	Solid	Sat Paste Ext	
280-94768-4	RC4-CLU09-0.25	Soluble	Solid	Sat Paste Ext	
280-94768-5	RC4-HEL10-0.25	Soluble	Solid	Sat Paste Ext	
280-94768-6	RC4-CLU11-0.25	Soluble	Solid	Sat Paste Ext	
280-94768-7	RC4-DUP01-0.25	Soluble	Solid	Sat Paste Ext	
280-94768-1 DU	RC4-HEL06-0.25	Soluble	Solid	Sat Paste Ext	

Analysis Batch: 414990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Soluble	Solid	9050A	414393
280-94768-2	RC4-CLU07-0.25	Soluble	Solid	9050A	414393
280-94768-3	RC4-HEL08-0.25	Soluble	Solid	9050A	414393
280-94768-4	RC4-CLU09-0.25	Soluble	Solid	9050A	414393
280-94768-5	RC4-HEL10-0.25	Soluble	Solid	9050A	414393
280-94768-6	RC4-CLU11-0.25	Soluble	Solid	9050A	414393
280-94768-7	RC4-DUP01-0.25	Soluble	Solid	9050A	414393
LCS 490-414990/3	Lab Control Sample	Total/NA	Solid	9050A	
LCSD 490-414990/4	Lab Control Sample Dup	Total/NA	Solid	9050A	
280-94768-1 DU	RC4-HEL06-0.25	Soluble	Solid	9050A	414393

Prep Batch: 415128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Total/NA	Solid	3060A	
280-94768-2	RC4-CLU07-0.25	Total/NA	Solid	3060A	
280-94768-3	RC4-HEL08-0.25	Total/NA	Solid	3060A	
280-94768-4	RC4-CLU09-0.25	Total/NA	Solid	3060A	
280-94768-5	RC4-HEL10-0.25	Total/NA	Solid	3060A	
280-94768-6	RC4-CLU11-0.25	Total/NA	Solid	3060A	
280-94768-7	RC4-DUP01-0.25	Total/NA	Solid	3060A	
MB 490-415128/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 490-415128/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSS 490-415128/2-A	Lab Control Sample	Total/NA	Solid	3060A	
280-94768-3 MSI	RC4-HEL08-0.25	Total/NA	Solid	3060A	
280-94768-3 MSS	RC4-HEL08-0.25	Total/NA	Solid	3060A	
280-94768-2 DU	RC4-CLU07-0.25	Total/NA	Solid	3060A	

Analysis Batch: 415150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Total/NA	Solid	7196A	415128
280-94768-2	RC4-CLU07-0.25	Total/NA	Solid	7196A	415128
280-94768-3	RC4-HEL08-0.25	Total/NA	Solid	7196A	415128
280-94768-4	RC4-CLU09-0.25	Total/NA	Solid	7196A	415128
280-94768-5	RC4-HEL10-0.25	Total/NA	Solid	7196A	415128
280-94768-6	RC4-CLU11-0.25	Total/NA	Solid	7196A	415128
280-94768-7	RC4-DUP01-0.25	Total/NA	Solid	7196A	415128
MB 490-415128/1-A	Method Blank	Total/NA	Solid	7196A	415128
LCSI 490-415128/3-A	Lab Control Sample	Total/NA	Solid	7196A	415128
LCSS 490-415128/2-A	Lab Control Sample	Total/NA	Solid	7196A	415128
280-94768-3 MSI	RC4-HEL08-0.25	Total/NA	Solid	7196A	415128

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

General Chemistry (Continued)

Analysis Batch: 415150 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-3 MSS	RC4-HEL08-0.25	Total/NA	Solid	7196A	415128
280-94768-2 DU	RC4-CLU07-0.25	Total/NA	Solid	7196A	415128

Analysis Batch: 415187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Total/NA	Solid	7196A	
280-94768-2	RC4-CLU07-0.25	Total/NA	Solid	7196A	
280-94768-3	RC4-HEL08-0.25	Total/NA	Solid	7196A	
280-94768-4	RC4-CLU09-0.25	Total/NA	Solid	7196A	
280-94768-5	RC4-HEL10-0.25	Total/NA	Solid	7196A	
280-94768-6	RC4-CLU11-0.25	Total/NA	Solid	7196A	
280-94768-7	RC4-DUP01-0.25	Total/NA	Solid	7196A	

Lab Chronicle

Client: Stantec Consulting Corp.
 j ro/ectSite: Stantec CXR - y angel, OCB

TestAmerica Job ID: 280-94618-P

Client Sample ID: RC4-HEL06-0.25

Lab Sample ID: 280-94768-1

Date Collected: 03/10/17 14:10

Matrix: Solid

Date Received: 03/11/17 20:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	j rep	20E			P.0 g	N0 m5	71NP2P	07VP7VP6 09:48	S3J	TA5 D3L
Soluble	Anal, sis	20E		P0			71NNN1	07VP4VP6 P0:PN	CM5	TA5 D3L
Soluble	5each	DI 5each			40.47 g	40 m5	71N227	07VP7VP6 P0:N6	I3U	TA5 D3L
Soluble	Anal, sis	904ND		P	P m5	P m5	71N214	07VP7VP6 P7:78	I3U	TA5 D3L
Soluble	j rep	Sat j aste 3xt			P g	P m5	4P4797	07VP1VP6 P2:04	EAA	TA5 L SK
Soluble	Anal, sis	90NDA		P			4P4990	07VP1VP6 P2:20	JAE	TA5 L SK
TotalV A	Anal, sis	Moisture		P			71NNN9	07VPNP6 P0:04	APD	TA5 D3L

Client Sample ID: RC4-HEL06-0.25

Lab Sample ID: 280-94768-1

Date Collected: 03/10/17 14:10

Matrix: Solid

Date Received: 03/11/17 20:05

Percent Solids: 80.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotalV A	j rep	N07N			1.N14 g	Nm5	71N288	07VP0VP6 P4:P0	Hj M	TA5 D3L
TotalV A	Anal, sis	8210E		P	P u5	P u5	71N292	07VP7VP6 P8:P2	Hj M	TA5 D3L
TotalV A	j rep	7N41			7P.7 g	P m5	71NPN9	07VP2VP6 P9:PN	DGEP	TA5 D3L
TotalV A	Anal, sis	8260D SIM		P			71N406	07VP4VP6 P1:78	FHX	TA5 D3L
TotalV A	j rep	N07N			1.906 g	Nm5	71N281	07VP0VP6 P4:P0	FDF	TA5 D3L
TotalV A	Anal, sis	80PNC		P	0.P m5	Nm5	71N401	07VPNP6 0P:27	FDF	TA5 D3L
TotalV A	j rep	7N41			70.2 g	P m5	71NPN6	07VP2VP6 P6:N6	DGEP	TA5 D3L
TotalV A	Cleanup	7170M			P m5	P m5	71N720	07VP7VP6 20:20	35X	TA5 D3L
TotalV A	Anal, sis	80PNC		P			71NN69	07VPNP6 P9:P6	FDF	TA5 D3L
TotalV A	j rep	70NDE			P.467 g	P00 m5	71N2PP	07VP7VP6 P4:7N	S3J	TA5 D3L
TotalV A	Anal, sis	10POC		P			71N76P	07VP4VP6 02:76	SJS	TA5 D3L
TotalV A	j rep	70NDE			P.467 g	P00 m5	71N2PP	07VP7VP6 P4:7N	S3J	TA5 D3L
TotalV A	Anal, sis	10POC		P			71NN70	07VP4VP6 P6:0N	CDK	TA5 D3L
TotalV A	j rep	70NDE			P.40P g	P00 m5	71N2P2	07VP7VP6 P4:7N	S3J	TA5 D3L
TotalV A	Anal, sis	1020A		P			71N440	07VP4VP6 PP:N7	5MT	TA5 D3L
TotalV A	j rep	646PA			0.NN g	N0 m5	71N778	07VP4VP6 P2:P4	T3E	TA5 D3L
TotalV A	Anal, sis	646PA		P			71NN08	07VP4VP6 2P:0P	T3E	TA5 D3L
TotalV A	j rep	7010A			2.NN60 g	N00 m5	4PNP28	07VP1VP6 20:44	DJj	TA5 L SK
TotalV A	Anal, sis	6P91A		P	N0 m5	N0 m5	4PNPN0	07VP6VP6 00:PN	DJj	TA5 L SK
TotalV A	Anal, sis	6P91A		P	N0 m5	N0 m5	4PNP86	07VP6VP6 00:PN	EMC	TA5 L SK

Client Sample ID: RC4-CLU07-0.25

Lab Sample ID: 280-94768-2

Date Collected: 03/10/17 14:20

Matrix: Solid

Date Received: 03/11/17 20:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	j rep	20E			P.0 g	N0 m5	71NP2P	07VP7VP6 09:48	S3J	TA5 D3L
Soluble	Anal, sis	20E		P0			71NNN1	07VP4VP6 P0:P8	CM5	TA5 D3L
Soluble	5each	DI 5each			40.77 g	40 m5	71N227	07VP7VP6 P0:N6	I3U	TA5 D3L
Soluble	Anal, sis	904ND		P	P m5	P m5	71N214	07VP7VP6 P7:78	I3U	TA5 D3L

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
 j ro/ectSite: Stantec CXR - y angel, OCB

TestAmerica Job ID: 280-94618-P

Client Sample ID: RC4-CLU07-0.25

Lab Sample ID: 280-94768-2

Date Collected: 03/10/17 14:20

Matrix: Solid

Date Received: 03/11/17 20:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	j rep	Sat j aste 3xt			P g	P m5	4P4797	07VP1VP6 P2:04	EAA	TA5 L SK
Soluble	Anal, sis	90NDA		P			4P4990	07VP1VP6 P2:20	JAE	TA5 L SK
TotalV A	Anal, sis	Moisture		P			71NN9	07VPNP6 P0:04	APD	TA5 D3L

Client Sample ID: RC4-CLU07-0.25

Lab Sample ID: 280-94768-2

Date Collected: 03/10/17 14:20

Matrix: Solid

Date Received: 03/11/17 20:05

Percent Solids: 81.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotalV A	j rep	N07N			1.69 g	P000 m5	71N711	07VP0VP6 P4:20	CAS	TA5 D3L
TotalV A	Anal, sis	8210E		P0	20 m5	20 m5	71NN26	07VP4VP6 PP:02	J5S	TA5 D3L
TotalV A	j rep	7N41			70.2 g	P m5	71NPN9	07VP2VP6 P9:PN	DGEP	TA5 D3L
TotalV A	Anal, sis	8260D SIM		40			71N406	07VP4VP6 P6:04	FHX	TA5 D3L
TotalV A	j rep	7N41	D5		70.2 g	P m5	71NPN9	07VP2VP6 P9:PN	DGEP	TA5 D3L
TotalV A	Anal, sis	8260D SIM	D5	P00			71N406	07VP4VP6 20:N1	FHX	TA5 D3L
TotalV A	j rep	N07N			1.272 g	Nm5	71N281	07VP0VP6 P4:20	FDF	TA5 D3L
TotalV A	Anal, sis	80PNC		200	0.P m5	Nm5	71N602	07VP1VP6 0P:00	FDF	TA5 D3L
TotalV A	j rep	70NDE			P.788 g	P00 m5	71N2PP	07VP7VP6 P4:7N	S3J	TA5 D3L
TotalV A	Anal, sis	10POC		P			71N76P	07VP4VP6 07:00	SJS	TA5 D3L
TotalV A	j rep	70NDE			P.788 g	P00 m5	71N2PP	07VP7VP6 P4:7N	S3J	TA5 D3L
TotalV A	Anal, sis	10POC		P			71NN70	07VP4VP6 P6:26	CDK	TA5 D3L
TotalV A	j rep	70NDE			P.PN7 g	P00 m5	71N2P2	07VP7VP6 P4:7N	S3J	TA5 D3L
TotalV A	Anal, sis	1020A		P			71N440	07VP4VP6 P2:27	5MT	TA5 D3L
TotalV A	j rep	646PA			0.N8 g	N0 m5	71N778	07VP4VP6 P2:P4	T3E	TA5 D3L
TotalV A	Anal, sis	646PA		P			71NN08	07VP4VP6 2P:08	T3E	TA5 D3L
TotalV A	j rep	7010A			2.N49P g	N00 m5	4PNP28	07VP1VP6 20:44	DJj	TA5 L SK
TotalV A	Anal, sis	6P91A		P	N0 m5	N0 m5	4PNPN0	07VP6VP6 00:PN	DJj	TA5 L SK
TotalV A	Anal, sis	6P91A		P	N0 m5	N0 m5	4PNP86	07VP6VP6 00:PN	EMC	TA5 L SK

Client Sample ID: RC4-HEL08-0.25

Lab Sample ID: 280-94768-3

Date Collected: 03/10/17 15:45

Matrix: Solid

Date Received: 03/11/17 20:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	j rep	20E			P.0 g	N0 m5	71NP2P	07VP7VP6 09:48	S3J	TA5 D3L
Soluble	Anal, sis	20E		P0			71NNN1	07VP4VP6 P0:72	CM5	TA5 D3L
Soluble	5each	DI 5each			40.47 g	40 m5	71N227	07VP7VP6 P0:N6	I3U	TA5 D3L
Soluble	Anal, sis	904ND		P	P m5	P m5	71N214	07VP7VP6 P7:78	I3U	TA5 D3L
Soluble	j rep	Sat j aste 3xt			P g	P m5	4P4797	07VP1VP6 P2:04	EAA	TA5 L SK
Soluble	Anal, sis	90NDA		P			4P4990	07VP1VP6 P2:20	JAE	TA5 L SK
TotalV A	Anal, sis	Moisture		P			71NN9	07VPNP6 P0:04	APD	TA5 D3L

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
 j ro/ectSite: Stantec CXR - y angel, OCB

TestAmerica Job ID: 280-94618-P

Client Sample ID: RC4-HEL08-0.25

Lab Sample ID: 280-94768-3

Date Collected: 03/10/17 15:45

Matrix: Solid

Date Received: 03/11/17 20:05

Percent Solids: 85.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total V A	j rep	N07N			4.9PP g	Nm5	71N288	07VP0VP6 PN:4N	Hj M	TA5 D3L
Total V A	Anal, sis	8210E		P	P u5	P u5	71N292	07VP7VP6 P6:70	Hj M	TA5 D3L
Total V A	j rep	7N41			7P.7 g	P m5	71NPN9	07VP2VP6 P9:PN	DGEP	TA5 D3L
Total V A	Anal, sis	8260D SIM		P			71N406	07VP4VP6 P6:29	FHX	TA5 D3L
Total V A	j rep	N07N			N012 g	Nm5	71N281	07VP0VP6 PN:4N	FDF	TA5 D3L
Total V A	Anal, sis	80PNC		P	0.P m5	Nm5	71N602	07VP1VP6 0P:2N	FDF	TA5 D3L
Total V A	j rep	7N41			72.9 g	P m5	71NPN6	07VP2VP6 P6:N6	DGEP	TA5 D3L
Total V A	Cleanup	7170M			P m5	P m5	71N720	07VP7VP6 20:20	35X	TA5 D3L
Total V A	Anal, sis	80PNC		P			71NN69	07VPNP6 20:P1	FDF	TA5 D3L
Total V A	j rep	70N0E			P.20Ng	P00 m5	71N2PP	07VP7VP6 P4:7N	S3J	TA5 D3L
Total V A	Anal, sis	10P0C		P			71N76P	07VP4VP6 07:02	SJS	TA5 D3L
Total V A	j rep	70N0E			P.20Ng	P00 m5	71N2PP	07VP7VP6 P4:7N	S3J	TA5 D3L
Total V A	Anal, sis	10P0C		P			71NN70	07VP4VP6 P6:70	CDK	TA5 D3L
Total V A	j rep	70N0E			P.440 g	P00 m5	71N2P2	07VP7VP6 P4:7N	S3J	TA5 D3L
Total V A	Anal, sis	1020A		P			71N440	07VP4VP6 P2:26	5MT	TA5 D3L
Total V A	j rep	646PA			0.N2 g	N0 m5	71N778	07VP4VP6 P2:P4	T3E	TA5 D3L
Total V A	Anal, sis	646PA		P			71NN08	07VP4VP6 2P:P0	T3E	TA5 D3L
Total V A	j rep	7010A			2.N768 g	N00 m5	4PNP28	07VP1VP6 20:44	DJj	TA5 L SK
Total V A	Anal, sis	6P91A		P	N0 m5	N0 m5	4PNPN0	07VP6VP6 00:PN	DJj	TA5 L SK
Total V A	Anal, sis	6P91A		P	N0 m5	N0 m5	4PNP86	07VP6VP6 00:PN	EMC	TA5 L SK

Client Sample ID: RC4-CLU09-0.25

Lab Sample ID: 280-94768-4

Date Collected: 03/10/17 15:55

Matrix: Solid

Date Received: 03/11/17 20:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	j rep	20E			P.0 g	N0 m5	71NP2P	07VP7VP6 09:48	S3J	TA5 D3L
Soluble	Anal, sis	20E		P0			71NNN1	07VP4VP6 P0:7N	CM5	TA5 D3L
Soluble	5each	DI 5each			40.4P g	40 m5	71N227	07VP7VP6 P0:N6	I3U	TA5 D3L
Soluble	Anal, sis	904ND		P	P m5	P m5	71N214	07VP7VP6 P7:78	I3U	TA5 D3L
Soluble	j rep	Sat j aste 3xt			P g	P m5	4P4797	07VP1VP6 P2:04	EAA	TA5 L SK
Soluble	Anal, sis	90NDA		P			4P4990	07VP1VP6 P2:20	JAE	TA5 L SK
Total V A	Anal, sis	Moisture		P			71NNN9	07VPNP6 P0:04	APD	TA5 D3L

Client Sample ID: RC4-CLU09-0.25

Lab Sample ID: 280-94768-4

Date Collected: 03/10/17 15:55

Matrix: Solid

Date Received: 03/11/17 20:05

Percent Solids: 76.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total V A	j rep	N07N			4.796 g	P000 m5	71N711	07VP0VP6 PN:NN	CAS	TA5 D3L
Total V A	Anal, sis	8210E		P0	20 m5	20 m5	71NN26	07VP4VP6 PP:22	J5S	TA5 D3L
Total V A	j rep	7N41			70.1 g	P m5	71NPN9	07VP2VP6 P9:PN	DGEP	TA5 D3L
Total V A	Anal, sis	8260D SIM		40			71N406	07VP4VP6 P8:46	FHX	TA5 D3L

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
 Project Site: Stantec CXR - y angel, OCB

TestAmerica Job ID: 280-94618-P

Client Sample ID: RC4-CLU09-0.25

Lab Sample ID: 280-94768-4

Date Collected: 03/10/17 15:55

Matrix: Solid

Date Received: 03/11/17 20:05

Percent Solids: 76.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total V A	j rep	7N41	D5		70.1 g	P m5	71NP9	07VP2VP6 P9:PN	DGEP	TA5 D3L
Total V A	Anal, sis	8260D SIM	D5	P00			71N406	07VP4VP6 2P:22	FHX	TA5 D3L
Total V A	j rep	N07N			1.4NP g	N m5	71N281	07VP0VP6 PN:NN	FDF	TA5 D3L
Total V A	Anal, sis	80PNC		P00	0.P m5	N m5	71N644	07VP1VP6 P7:24	FDF	TA5 D3L
Total V A	j rep	7N41			70.0 g	2 m5	71NP6	07VP2VP6 P6:N6	DGEP	TA5 D3L
Total V A	Cleanup	7170M			P m5	2 m5	71N720	07VP7VP6 20:20	35X	TA5 D3L
Total V A	Anal, sis	80PNC		P0			71NN69	07VPNP6 20:4N	FDF	TA5 D3L
Total V A	j rep	70NDE			P.26Ng	P00 m5	71N2PP	07VP7VP6 P4:7N	S3J	TA5 D3L
Total V A	Anal, sis	10POC		P			71N76P	07VP4VP6 07:04	SJS	TA5 D3L
Total V A	j rep	70NDE			P.26Ng	P00 m5	71N2PP	07VP7VP6 P4:7N	S3J	TA5 D3L
Total V A	Anal, sis	10POC		P			71NN70	07VP4VP6 P6:72	CDK	TA5 D3L
Total V A	j rep	70NDE			P.4N1 g	P00 m5	71N2P2	07VP7VP6 P4:7N	S3J	TA5 D3L
Total V A	Anal, sis	1020A		P			71N440	07VP4VP6 P2:7P	5MT	TA5 D3L
Total V A	j rep	646PA			0.NP g	N0 m5	71N778	07VP4VP6 P2:P4	T3E	TA5 D3L
Total V A	Anal, sis	646PA		P			71NN08	07VP4VP6 2P:P7	T3E	TA5 D3L
Total V A	j rep	7010A			2.N208 g	N00 m5	4PNP28	07VP1VP6 20:44	DJj	TA5 L SK
Total V A	Anal, sis	6P91A		P	N0 m5	N0 m5	4PNPN0	07VP6VP6 00:PN	DJj	TA5 L SK
Total V A	Anal, sis	6P91A		P	N0 m5	N0 m5	4PNP86	07VP6VP6 00:PN	EMC	TA5 L SK

Client Sample ID: RC4-HEL10-0.25

Lab Sample ID: 280-94768-5

Date Collected: 03/11/17 09:20

Matrix: Solid

Date Received: 03/11/17 20:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	j rep	20E			P.0 g	N0 m5	71NP2P	07VP7VP6 09:48	S3J	TA5 D3L
Soluble	Anal, sis	20E		P0			71NNN1	07VP4VP6 P0:78	CM5	TA5 D3L
Soluble	5each	DI 5each			40.P8 g	40 m5	71N227	07VP7VP6 P0:N6	I3U	TA5 D3L
Soluble	Anal, sis	904ND		P	P m5	P m5	71N214	07VP7VP6 P7:78	I3U	TA5 D3L
Soluble	j rep	Sat j aste 3xt			P g	P m5	4P4797	07VP1VP6 P2:04	EAA	TA5 L SK
Soluble	Anal, sis	90NDA		P			4P4990	07VP1VP6 P2:20	JAE	TA5 L SK
Total V A	Anal, sis	Moisture		P			71NNN9	07VPNP6 P0:04	APD	TA5 D3L

Client Sample ID: RC4-HEL10-0.25

Lab Sample ID: 280-94768-5

Date Collected: 03/11/17 09:20

Matrix: Solid

Date Received: 03/11/17 20:05

Percent Solids: 92.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total V A	j rep	N07N			N108 g	N m5	71N288	07VP1VP6 09:20	Hj M	TA5 D3L
Total V A	Anal, sis	8210E		P	P u5	P u5	71N292	07VP7VP6 P8:72	Hj M	TA5 D3L
Total V A	j rep	7N41			70.4 g	P m5	71NP9	07VP2VP6 P9:PN	DGEP	TA5 D3L
Total V A	Anal, sis	8260D SIM		P			71N406	07VP4VP6 P9:P7	FHX	TA5 D3L
Total V A	j rep	N07N			N499 g	N m5	71N281	07VP1VP6 09:20	FDF	TA5 D3L
Total V A	Anal, sis	80PNC		P	0.P m5	N m5	71N602	07VP1VP6 02:P4	FDF	TA5 D3L

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
 j ro/ectSite: Stantec CXR - y angel, OCB

TestAmerica Job ID: 280-94618-P

Client Sample ID: RC4-HEL10-0.25

Lab Sample ID: 280-94768-5

Date Collected: 03/11/17 09:20

Matrix: Solid

Date Received: 03/11/17 20:05

Percent Solids: 92.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total V A	j rep	7N41			7P.4 g	P m5	71NP6	07VP2VP6 P6:N6	DGEP	TA5 D3L
Total V A	Cleanup	7170M			P m5	P m5	71N720	07VP7VP6 20:20	35X	TA5 D3L
Total V A	Anal, sis	80PNC		P			71NN69	07VPNP6 2P:P4	FDF	TA5 D3L
Total V A	j rep	70NDE			P.P0Ng	P00 m5	71N2PP	07VP7VP6 P4:7N	S3J	TA5 D3L
Total V A	Anal, sis	10P0C		P			71N76P	07VP4VP6 07:06	SJS	TA5 D3L
Total V A	j rep	70NDE			P.P0Ng	P00 m5	71N2PP	07VP7VP6 P4:7N	S3J	TA5 D3L
Total V A	Anal, sis	10P0C		P			71NN70	07VP4VP6 P6:7N	CDK	TA5 D3L
Total V A	j rep	70NDE			P.2N8 g	P00 m5	71N2P2	07VP7VP6 P4:7N	S3J	TA5 D3L
Total V A	Anal, sis	1020A		P			71N440	07VP4VP6 P2:7N	5MT	TA5 D3L
Total V A	j rep	646PA			0.N6 g	N0 m5	71N778	07VP4VP6 P2:P4	T3E	TA5 D3L
Total V A	Anal, sis	646PA		P			71NN08	07VP4VP6 2P:PN	T3E	TA5 D3L
Total V A	j rep	7010A			2.N7PP g	N00 m5	4PNP28	07VP1VP6 20:44	DJj	TA5 L SK
Total V A	Anal, sis	6P91A		P	N0 m5	N0 m5	4PNPN0	07VP6VP6 00:PN	DJj	TA5 L SK
Total V A	Anal, sis	6P91A		P	N0 m5	N0 m5	4PNP86	07VP6VP6 00:PN	EMC	TA5 L SK

Client Sample ID: RC4-CLU11-0.25

Lab Sample ID: 280-94768-6

Date Collected: 03/11/17 09:35

Matrix: Solid

Date Received: 03/11/17 20:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	j rep	20E			P.0 g	N0 m5	71NP2P	07VP7VP6 09:48	S3J	TA5 D3L
Soluble	Anal, sis	20E		P0			71NNN1	07VP4VP6 P0:4P	CM5	TA5 D3L
Soluble	5each	DI 5each			40.77 g	40 m5	71N227	07VP7VP6 P0:N6	I3U	TA5 D3L
Soluble	Anal, sis	904ND		P	P m5	P m5	71N214	07VP7VP6 P7:78	I3U	TA5 D3L
Soluble	j rep	Sat j aste 3xt			P g	P m5	4P4797	07VP1VP6 P2:04	EAA	TA5 L SK
Soluble	Anal, sis	90NDA		P			4P4990	07VP1VP6 P2:20	JAE	TA5 L SK
Total V A	Anal, sis	Moisture		P			71NNN9	07VPNP6 P0:04	APD	TA5 D3L

Client Sample ID: RC4-CLU11-0.25

Lab Sample ID: 280-94768-6

Date Collected: 03/11/17 09:35

Matrix: Solid

Date Received: 03/11/17 20:05

Percent Solids: 82.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total V A	j rep	N07N			1.N14 g	P000 m5	71N711	07VPVP6 09:7N	CAS	TA5 D3L
Total V A	Anal, sis	8210E		P0	20 m5	20 m5	71NN26	07VP4VP6 PP:4P	J5S	TA5 D3L
Total V A	j rep	7N41			70.P g	P m5	71NP69	07VP2VP6 P9:PN	DGEP	TA5 D3L
Total V A	Anal, sis	8260D SIM		20			71N406	07VP4VP6 P9:79	FHX	TA5 D3L
Total V A	j rep	N07N			1.N04 g	Nm5	71N281	07VPVP6 09:7N	FDF	TA5 D3L
Total V A	Anal, sis	80PNC		P0	0.P m5	Nm5	71N602	07VP1VP6 02:79	FDF	TA5 D3L
Total V A	j rep	7N41			7P.P g	P m5	71NP6	07VP2VP6 P6:N6	DGEP	TA5 D3L
Total V A	Cleanup	7170M			P m5	P m5	71N720	07VP7VP6 20:20	35X	TA5 D3L
Total V A	Anal, sis	80PNC		2			71NN69	07VPNP6 22:40	FDF	TA5 D3L
Total V A	j rep	70NDE			P.402 g	P00 m5	71N2PP	07VP7VP6 P4:7N	S3J	TA5 D3L

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
 j ro/ectSite: Stantec CXR - y angel, OCB

TestAmerica Job ID: 280-94618-P

Client Sample ID: RC4-CLU11-0.25

Lab Sample ID: 280-94768-6

Date Collected: 03/11/17 09:35

Matrix: Solid

Date Received: 03/11/17 20:05

Percent Solids: 82.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total V A	Anal, sis	10POC		P			71N76P	07V4V6 07:09	SJS	TA5 D3L
Total V A	j rep	70NDE			P.402 g	P00 m5	71N2PP	07V7V6 P4:7N	S3J	TA5 D3L
Total V A	Anal, sis	10POC		P			71N70	07V4V6 P6:76	CDK	TA5 D3L
Total V A	j rep	70NDE			P.446 g	P00 m5	71N2P2	07V7V6 P4:7N	S3J	TA5 D3L
Total V A	Anal, sis	1020A		P			71N440	07V4V6 P2:78	5MT	TA5 D3L
Total V A	j rep	646PA			0.NNg	N0 m5	71N778	07V4V6 P2:P4	T3E	TA5 D3L
Total V A	Anal, sis	646PA		P			71NND8	07V4V6 2P:P6	T3E	TA5 D3L
Total V A	j rep	7010A			2.N208 g	N00 m5	4PNP28	07V1V6 20:44	DJj	TA5 L SK
Total V A	Anal, sis	6P91A		P	N0 m5	N0 m5	4PNPN0	07V6V6 00:PN	DJj	TA5 L SK
Total V A	Anal, sis	6P91A		P	N0 m5	N0 m5	4PNP86	07V6V6 00:PN	EMC	TA5 L SK

Client Sample ID: RC4-DUP01-0.25

Lab Sample ID: 280-94768-7

Date Collected: 03/10/17 00:00

Matrix: Solid

Date Received: 03/11/17 20:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	j rep	20E			P.0 g	N0 m5	71N2P	07V7V6 09:48	S3J	TA5 D3L
Soluble	Anal, sis	20E		P0			71NNN1	07V4V6 P0:44	CM5	TA5 D3L
Soluble	5each	DI 5each			40.2P g	40 m5	71N227	07V7V6 P0:N6	I3U	TA5 D3L
Soluble	Anal, sis	904ND		P	P m5	P m5	71N214	07V7V6 P7:78	I3U	TA5 D3L
Soluble	j rep	Sat j aste 3xt			P g	P m5	4P4797	07V1V6 P2:04	EAA	TA5 L SK
Soluble	Anal, sis	90NDA		P			4P4990	07V1V6 P2:20	JAE	TA5 L SK
Total V A	Anal, sis	Moisture		P			71NNN9	07VNP6 P0:04	APD	TA5 D3L

Client Sample ID: RC4-DUP01-0.25

Lab Sample ID: 280-94768-7

Date Collected: 03/10/17 00:00

Matrix: Solid

Date Received: 03/11/17 20:05

Percent Solids: 77.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total V A	j rep	N07N			N991 g	P000 m5	71N711	07V0V6 00:00	CAS	TA5 D3L
Total V A	Anal, sis	8210E		P0	20 m5	20 m5	71N26	07V4V6 P2:0P	J5S	TA5 D3L
Total V A	j rep	7N41			7P.1 g	P m5	71NPN9	07V2V6 P9:PN	DGEP	TA5 D3L
Total V A	Anal, sis	8260D SIM		40			71N406	07V4V6 20:04	FHX	TA5 D3L
Total V A	j rep	7N41	D5		7P.1 g	P m5	71NPN9	07V2V6 P9:PN	DGEP	TA5 D3L
Total V A	Anal, sis	8260D SIM	D5	P00			71N406	07V4V6 22:P7	FHX	TA5 D3L
Total V A	j rep	N07N			N94P g	Nm5	71N281	07VPP6 00:00	FDF	TA5 D3L
Total V A	Anal, sis	80PNC		200	0.P m5	Nm5	71N602	07V1V6 07:07	FDF	TA5 D3L
Total V A	j rep	7N41			70.4 g	2 m5	71NPN6	07V2V6 P6:N6	DGEP	TA5 D3L
Total V A	Cleanup	7170M			P m5	2 m5	71N720	07V7V6 20:20	35X	TA5 D3L
Total V A	Anal, sis	80PNC		P0			71NN69	07VNP6 27:09	FDF	TA5 D3L
Total V A	j rep	70NDE			P.42Ng	P00 m5	71N2PP	07V7V6 P4:7N	S3J	TA5 D3L
Total V A	Anal, sis	10POC		P			71N76P	07V4V6 07:P2	SJS	TA5 D3L
Total V A	j rep	70NDE			P.42Ng	P00 m5	71N2PP	07V7V6 P4:7N	S3J	TA5 D3L

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
 j ro/ectSite: Stantec CXR - y angel, OCB

TestAmerica Job ID: 280-94618-P

Client Sample ID: RC4-DUP01-0.25

Lab Sample ID: 280-94768-7

Date Collected: 03/10/17 00:00

Matrix: Solid

Date Received: 03/11/17 20:05

Percent Solids: 77.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total V A	Anal, sis	10P0C		P			71N70	07V4V6 P6:40	CDK	TA5 D3L
Total V A	j rep	70NDE			P.P11 g	P00 m5	71N2P2	07V7V6 P4:7N	S3J	TA5 D3L
Total V A	Anal, sis	1020A		P			71N440	07V4V6 P2:42	5MT	TA5 D3L
Total V A	j rep	646PA			0.N1 g	N0 m5	71N778	07V4V6 P2:P4	T3E	TA5 D3L
Total V A	Anal, sis	646PA		P			71NND8	07V4V6 2P:20	T3E	TA5 D3L
Total V A	j rep	7010A			2.N612 g	N00 m5	4PNP28	07V1V6 20:44	DJj	TA5 L SK
Total V A	Anal, sis	6P91A		P	N0 m5	N0 m5	4PNPN0	07V6V6 00:PN	DJj	TA5 L SK
Total V A	Anal, sis	6P91A		P	N0 m5	N0 m5	4PNP86	07V6V6 00:PN	EMC	TA5 L SK

Laboratory References:

TA5 D3L = TestAmerica DenverQ49NNYarrow StreetQArvadaOCB 80002OT35 (707)671-0P00

TA5 L SK = TestAmerica L ashvilleQ2910 Goster Creighton DriveQL ashvilleOTL 76204OT35 (1PN)621-0P66

Accreditation/Certification Summary

Client: Stantec Consulting Corp.

TestAmerica Job ID: 280-94618-P

Site: Stantec CXR - y angel, Qcd

Laboratory: TestAmerica Denver

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

Authority	Program	EPA Region	Identification Number	Expiration Date
A27A	DoD E7Aj		2906.0P	P0-3P-P6
A27A	ISd VEC P6025		2906.0P	P0-3P-P6
Alabama	State program	4	40630	09-30-P2 *
Alaska (UST)	State program	P0	UST-30	04-05-P8
Arizona	State program	9	AZ06P3	P2-20-P6
Arkansas DEQ	State program	1	88-0186	01-0P-P6
California	State program	9	25P3	0P-08-P8 *
Connecticut	State program	P	1 H-0181	09-30-P8
Florida	LE7Aj	4	E86116	01-30-P6
Georgia	State program	4	LA	0P-08-P8
Illinois	LE7Aj	5	2000P6	04-30-P8
Iowa	State program	6	360	P2-0P-P8 *
Kansas	LE7Aj	6	E-P0P11	04-30-P6 *
Louisiana	LE7Aj	1	02091	01-30-P6
Maine	State program	P	Cd 0002	03-03-P9
Minnesota	LE7Aj	5	8-999-405	P2-3P-P6 *
Nebraska	State program	9	Cd 0021	06-3P-P6
New Hampshire	LE7Aj	P	2053P0	04-28-P6
New Jersey	LE7Aj	2	Cd 004	01-30-P6
New York	LE7Aj	2	PP914	04-0P-P8
North Carolina (WW&W)	State program	4	358	P2-3P-P6
North Dakota	State program	8	1-034	0P-09-P8
Ohio	State program	1	81P4	08-3P-P6
Oregon	LE7Aj	P0	4025	0P-08-P8
Pennsylvania	LE7Aj	3	18-00114	06-3P-P6
South Carolina	State program	4	6200200P	0P-09-P6 *
Texas	LE7Aj	1	TP04604P83-P1-P2	09-30-P6
USDA	Federal		1330-P1-00396	P2-P5-P9
Utah	LE7Aj	8	Cd 00021	06-3P-P6
Virginia	LE7Aj	3	410232	01-P4-P6
Washington	State program	P0	C583	08-02-P6
West Virginia DEJ	State program	3	354	PP-30-P6
Wisconsin	State program	5	9991P5430	08-3P-P6
Wyoming (UST)	A27A	8	2906.0P	P0-3P-P6

Laboratory: TestAmerica Nashville

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

Authority	Program	EPA Region	Identification Number	Expiration Date
A27A	A27A		LA: LE7Aj & A27A	P2-3P-P6
A27A	ISd VEC P6025		0453.06	P2-3P-P6
Alaska (UST)	State program	P0	UST-086	06-24-P6
Arizona	State program	9	AZ0463	05-05-P6
Arkansas DEQ	State program	1	88-0636	04-25-P6
California	State program	9	2938	P0-3P-P8
Connecticut	State program	P	1 H-0220	P2-3P-P6
Florida	LE7Aj	4	E86358	01-30-P6
Georgia	State program	4	LA	P2-3P-P6
Illinois	LE7Aj	5	2000P0	P2-09-P6
Iowa	State program	6	P3P	04-0P-P8

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

TestAmerica Denver

Accreditation/Certification Summary

Client: Stantec Consulting Corp.

TestAmerica Job ID: 280-94618-P

Site: Stantec CXR - y angel, OCd

Laboratory: TestAmerica Nashville (Continued)

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Kansas	LE7Aj	6	E-P0229	P0-3P-P6
Kentucky (UST)	State program	4	P9	01-30-P6
Kentucky (WW)	State program	4	90038	P2-3P-P6
Louisiana	LE7Aj	1	301P3	01-30-P6
Maine	State program	P	TL 00032	PP-03-P6
Marshall	State program	3	3P1	03-3P-P8
Massachusetts	State program	P	M-TL 032	01-30-P6
Minnesota	LE7Aj	5	046-999-345	P2-3P-P6
Mississippi	State program	4	LA	01-30-P6
Montana (UST)	State program	8	LA	02-24-20
Nebraska	State program	9	TL 00032	06-3P-P6
New Hampshire	LE7Aj	P	2913	P0-09-P6
New Jersey	LE7Aj	2	TL 915	01-30-P6
New York	LE7Aj	2	PP342	03-3P-P6 *
North Carolina (WW/WW)	State program	4	386	P2-3P-P6
North Dakota	State program	8	NY-P41	01-30-P6
Ohio (XAJ)	State program	5	C70033	06-P0-P6
Oklahoma	State program	1	94P2	08-3P-P6
Oregon	LE7Aj	P0	TL 20000P	04-26-P6
Pennsylvania	LE7Aj	3	18-00585	01-30-P6
Rhode Island	State program	P	7Ad 00218	P2-30-P6
South Carolina	State program	4	84009 (00P)	02-P8-P6 *
South Carolina (Do Not Use - DW)	State program	4	84009 (002)	P2-P1-P6
Tennessee	State program	4	2008	02-23-20
Texas	LE7Aj	1	TP04604066	08-3P-P6
USDA	Federal		J 330-P3-00301	P2-0P-P9
Utah	LE7Aj	8	TL 00032	06-3P-P6
Virginia	LE7Aj	3	410P52	01-P4-P6
Washington	State program	P0	C689	06-P9-P6
West Virginia DEJ	State program	3	2P9	02-28-P8
Wisconsin	State program	5	998020430	08-3P-P6
Wyoming (UST)	A27A	8	453.06	P2-3P-P6

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

TestAmerica Denver

Arvada, CO 80002-4517
phone 303.736.0100 fax 303.431.7171

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc.

[illegible]

COOLER RECEIPT FORM



280-94768 Chain of Custody

Cooler Received/Opened On 3/14/2017 @ 0950

Time Samples Removed From Cooler 1800 Time Samples Placed In Storage 1848 (2 Hour Window)

1. Tracking # 2207 (Last 4 digits, FedEx) Courier: FedEx
IR Gun ID_17960353_ pH Strip Lot NA Chlorine Strip Lot NA

2. Temperature of rep. sample or temp blank when opened: 3.0 Degrees Celsius

3. If Item #2 temperatures is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 Front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) ger

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #

I certify that I unloaded the cooler and answered questions 7-14 (initial) ger

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) ger

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) ger

I certify that I attached a label with the unique LIMS number to each container (initial) ger

21. Were there Non-Conformance issues at login? YES...NO... Was a NCM generated? YES...NO...#

TestAmerica Denver

4955 Yarrow Street
Avada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

280-94768

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)		Sampler:	Lab Pkt:																																																																																
Client Contact:		Phone:	Ide, Jamie N																																																																																
Shipping/Receiving		E-Mail:	jamie.ide@testamerica.com																																																																																
Company:		Accreditations Required (See note):																																																																																	
TestAmerica Laboratories, Inc																																																																																			
Address:		Due Date Requested:																																																																																	
2960 Foster Creighton Drive,		3/15/2017																																																																																	
City:		TAT Requested (days):																																																																																	
Nashville																																																																																			
State, Zip:		PO #:																																																																																	
TN, 37204																																																																																			
Phone:		W/O #:																																																																																	
615-726-0177(Tel) 615-726-3404(Fax)																																																																																			
Email:		Project #:																																																																																	
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Stanec CVX - Rangely, CO																																																																																			
Site:																																																																																			
<table border="1"> <thead> <tr> <th>Sample Identification - Client ID (Lab ID)</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=comp, G=grab)</th> <th>Matrix (Water, Solid, Overhaul, BT=Issue, AA=AI)</th> <th>Field Filtered Sample (Yes or No)</th> <th>Perform MS/MSD (Yes or No)</th> <th>Analysis Requested</th> <th>Total Number of containers</th> <th>Special Instructions/Note:</th> </tr> </thead> <tbody> <tr> <td>RC4-HELO6-0.25 (280-94768-1)</td> <td>3/10/17</td> <td>14:10</td> <td></td> <td>Solid</td> <td>X</td> <td>X</td> <td></td> <td>2</td> <td></td> </tr> <tr> <td>RC4-CLU07-0.25 (280-94768-2)</td> <td>3/10/17</td> <td>14:20</td> <td></td> <td>Solid</td> <td>X</td> <td>X</td> <td></td> <td>2</td> <td></td> </tr> <tr> <td>RC4-HELO8-0.25 (280-94768-3)</td> <td>3/10/17</td> <td>15:45</td> <td></td> <td>Solid</td> <td>X</td> <td>X</td> <td></td> <td>2</td> <td></td> </tr> <tr> <td>RC4-CLU09-0.25 (280-94768-4)</td> <td>3/10/17</td> <td>15:55</td> <td></td> <td>Solid</td> <td>X</td> <td>X</td> <td></td> <td>2</td> <td></td> </tr> <tr> <td>RC4-HEL10-0.25 (280-94768-5)</td> <td>3/11/17</td> <td>09:20</td> <td></td> <td>Solid</td> <td>X</td> <td>X</td> <td></td> <td>2</td> <td></td> </tr> <tr> <td>RC4-CLU11-0.25 (280-94768-6)</td> <td>3/11/17</td> <td>09:35</td> <td></td> <td>Solid</td> <td>X</td> <td>X</td> <td></td> <td>2</td> <td></td> </tr> <tr> <td>RC4-DUP01-0.25 (280-94768-7)</td> <td>3/10/17</td> <td>Mountain</td> <td></td> <td>Solid</td> <td>X</td> <td>X</td> <td></td> <td>2</td> <td></td> </tr> </tbody> </table>				Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, Overhaul, BT=Issue, AA=AI)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Total Number of containers	Special Instructions/Note:	RC4-HELO6-0.25 (280-94768-1)	3/10/17	14:10		Solid	X	X		2		RC4-CLU07-0.25 (280-94768-2)	3/10/17	14:20		Solid	X	X		2		RC4-HELO8-0.25 (280-94768-3)	3/10/17	15:45		Solid	X	X		2		RC4-CLU09-0.25 (280-94768-4)	3/10/17	15:55		Solid	X	X		2		RC4-HEL10-0.25 (280-94768-5)	3/11/17	09:20		Solid	X	X		2		RC4-CLU11-0.25 (280-94768-6)	3/11/17	09:35		Solid	X	X		2		RC4-DUP01-0.25 (280-94768-7)	3/10/17	Mountain		Solid	X	X		2	
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, Overhaul, BT=Issue, AA=AI)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Total Number of containers	Special Instructions/Note:																																																																										
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RC4-DUP01-0.25 (280-94768-7)	3/10/17	Mountain		Solid	X	X		2																																																																											
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																																																																																			
Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2																																																																																			
Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____																																																																																			
Relinquished by: <i>Patricia We</i> Date/Time: <i>3/13/17 1575</i> Company: <i>TAB</i> Received by: <i>Barbara</i> Date/Time: <i>3/14/17 0950</i> Company: <i>TAU</i>																																																																																			
Relinquished by: _____ Date/Time: _____ Company: _____ Received by: _____ Date/Time: _____ Company: _____																																																																																			
Custody Seal Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.: _____																																																																																			
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.																																																																																			
Other: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecylhydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4.5 L - EDTA Z - other (specify) _____																																																																																			

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-94768-1

Login Number: 94682

List Source: TestAmerica Denver

List Number: 1

Creator: Woodworth, Sean P

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

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-94768-1

Login Number: 94682

List Number: 7

Creator: West, Derrick D

List Source: TestAmerica Nashville

List Creation: 03/14/16 07:71 PM

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver

4955 Yarrow Street

Arvada, CO 80002

Tel: (303)736-0100

TestAmerica Job ID: 280-94768-2

Client Project/Site: Stantec CVX - Rangely, CO

Revision: 1

For:

Stantec Consulting Corp.

2000 South Colorado Blvd

Suite 2-300

Denver, Colorado 80222

Attn: Ms. Bethany Lucente



Authorized for release by:

4/5/2017 4:30:40 PM

Jamie Ide, Project Manager I

(303)736-0126

jamie.ide@testamericainc.com

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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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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-2

Qualifiers

GC Semi 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.
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
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
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, 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)

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-2

Job ID: 280-94618-2

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Stantec Consulting Corp.
Project: Stantec CVX - Rangely, CO
Report Number: 280-94618-2

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.

REVISION - 4/5/76

Per client request 3/31/17, the ORO originally requested on the chain of custody was removed from the analytical report.

RECEIPT

The samples were received on 3/11/2017 8:05 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.1° C and 0.1° C.

The requested 8015C DRO/ORO (No Silica Gel Cleanup) will be found in this report; all other analyses requested on the chain of custody will be reported under a separate cover (280-94768-1). Both Clean and Unclean DRO/ORO results for sample RC4-CLU07-0.25 (280-94768-2) will be found in this report.

DIESEL RANGE ORGANICS

Due to the matrix, the following sample could not be concentrated to the final method required volume: RC4-CLU07-0.25 (280-94768-2), RC4-CLU07-0.25 (280-94768-2), (280-94768-B-2 MS) and (280-94768-B-2 MSD). The reporting limits (RLs) are elevated proportionately. Adjusted volume 2 mL

The initial aliquot and surrogate aliquot used for extraction of the following samples was split between two extraction vessels with the routine volume of solvent added to each vessel: RC4-CLU09-0.25 (280-94768-4), RC4-CLU11-0.25 (280-94768-6) and RC4-DUP01-0.25 (280-94768-7). After the extraction, the extracts from both vessels were combined and concentrated.

Samples RC4-CLU07-0.25 (280-94768-2)[10X], RC4-CLU09-0.25 (280-94768-4)[10X], RC4-CLU11-0.25 (280-94768-6)[10X] and RC4-DUP01-0.25 (280-94768-7)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

o-Terphenyl failed the surrogate recovery criteria high for RC4-CLU07-0.25 (280-94768-2), RC4-CLU09-0.25 (280-94768-4), RC4-CLU11-0.25 (280-94768-6), RC4-DUP01-0.25 (280-94768-7), RC4-CLU07-0.25MS (280-94768-2MS), RC4-CLU07-0.25MSD (280-94768-2MSD). 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. The surrogate recoveries are calculated from diluted samples and in some cases are diluted below reportable limits.

The MS/MSDs performed on samples RC4-CLU07-0.25 (280-94768-2) and RC4-HEL08-0.25 (280-94768-3) exhibited spike recoveries and/or RPD data outside QC control limits for DRO (C10-C28). The associated LCS was in control and demonstrates that operating procedures were in control. No further action was required.

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

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-2

Client Sample ID: RC4-HEL06-0.25

Lab Sample ID: 280-94768-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
DRO (C10-C28)	1.5	J	4.9	0.83	mg/Kg	1	☼	8015C	Total/NA

Client Sample ID: RC4-CLU07-0.25

Lab Sample ID: 280-94768-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
DRO (C10-C28)	13000		98	17	mg/Kg	10	☼	8015C	Total/NA
DRO (C10-C28)	20000		98	17	mg/Kg	10	☼	8015C	Total/NA

Client Sample ID: RC4-HEL08-0.25

Lab Sample ID: 280-94768-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
DRO (C10-C28)	2.9	J F2	4.6	0.78	mg/Kg	1	☼	8015C	Total/NA

Client Sample ID: RC4-CLU09-0.25

Lab Sample ID: 280-94768-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
DRO (C10-C28)	24000		100	17	mg/Kg	10	☼	8015C	Total/NA

Client Sample ID: RC4-HEL10-0.25

Lab Sample ID: 280-94768-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
DRO (C10-C28)	7.6		4.3	0.73	mg/Kg	1	☼	8015C	Total/NA

Client Sample ID: RC4-CLU11-0.25

Lab Sample ID: 280-94768-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
DRO (C10-C28)	7100		46	7.9	mg/Kg	10	☼	8015C	Total/NA

Client Sample ID: RC4-DUP01-0.25

Lab Sample ID: 280-94768-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
DRO (C10-C28)	18000		100	17	mg/Kg	10	☼	8015C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-2

Method	Method Description	Protocol	Laboratory
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	TAL DEN

Protocol References:

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

1 of 1: nta1 tec 1 ol sSO1 u 1 orgp
. roPctjnite: nta1 tec 1 / V - Xal ueCy 1,

TestAmerica Job ID: 280-94768-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-94768-0	X14-HEL06-0p25	noW	03j0j07 04:00	03j0q07 20:05
280-94768-2	X14-1 LU07-0p25	noW	03j0j07 04:20	03j0q07 20:05
280-94768-3	X14-HEL08-0p25	noW	03j0j07 05:45	03j0q07 20:05
280-94768-4	X14-1 LU09-0p25	noW	03j0j07 05:55	03j0q07 20:05
280-94768-5	X14-HEL00-0p25	noW	03j0q07 09:20	03j0q07 20:05
280-94768-6	X14-1 LU00-0p25	noW	03j0q07 09:35	03j0q07 20:05
280-94768-7	X14-DU. 000p25	noW	03j0j07 00:00	03j0q07 20:05

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94618-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-E. L0H-0x25

Date Collected: 07/10/16 14:10

Date Received: 07/11/16 20:05

Analyste	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyst	Dil Fac
DRO (C10-C28)	1x5	A	4.9	0.85	mg/Kg	☼	05/37/36 30:47	05/36/36 06:42	3
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	72		49 - 115				03/15/17 10:45	03/17/17 07:42	1

Lab Sample ID: 280-946H-1

Matri3: Solid

Percent Solids: 80x8

Client Sample ID: RC4-CLQ06-0x25

Date Collected: 07/10/16 14:20

Date Received: 07/11/16 20:05

Analyste	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyst	Dil Factor
DRO (C10-C28)	17000		98	36	mg/Kg	☼	05/37/36 30:41	05/36/36 02:79	30
DRO (C10-C28)	20000		98	36	mg/Kg	☼	05/37/36 30:47	05/36/36 08:33	30
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Factor
o-Terphenyl (Surr)	951	X D	49 - 115				03/15/17 10:46	03/17/17 02:59	10
o-Terphenyl (Surr)	427	D X	49 - 115				03/15/17 10:45	03/17/17 08:11	10

Lab Sample ID: 280-946H-2

Matri3: Solid

Percent Solids: 81x7

Client Sample ID: RC4-E. L08-0x25

Date Collected: 07/10/16 15:45

Date Received: 07/11/16 20:05

Analyste	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyst	Dil Fac
DRO (C10-C28)	2x9	AF2	4.1	0.68	mg/Kg	☼	05/37/36 30:47	05/36/36 08:40	3
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	73		49 - 115				03/15/17 10:45	03/17/17 08:40	1

Lab Sample ID: 280-946H-7

Matri3: Solid

Percent Solids: 85x8

Client Sample ID: RC4-CLQ09-0x25

Date Collected: 07/10/16 15:55

Date Received: 07/11/16 20:05

Analyste	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyst	Dil Fac
DRO (C10-C28)	24000		300	36	mg/Kg	☼	05/37/36 30:47	05/36/36 30:07	30
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	561	D X	49 - 115				03/15/17 10:45	03/17/17 10:05	10

Lab Sample ID: 280-946H-4

Matri3: Solid

Percent Solids: 6H4

Client Sample ID: RC4-E. L10-0x25

Date Collected: 07/11/16 09:20

Date Received: 07/11/16 20:05

Analyste	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyst	Dil Fac
DRO (C10-C28)	6xH		4.5	0.65	mg/Kg	☼	05/37/36 30:47	05/36/36 30:54	3
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	75		49 - 115				03/15/17 10:45	03/17/17 10:34	1

Lab Sample ID: 280-946H-5

Matri3: Solid

Percent Solids: 92x8

Client Sample ID: RC4-CLQ11-0x25

Date Collected: 07/11/16 09:75

Date Received: 07/11/16 20:05

Analyste	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyst	Dil Fac
DRO (C10-C28)	6100		41	6.9	mg/Kg	☼	05/37/36 30:47	05/20/36 38:32	30
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	224	X D	49 - 115				03/15/17 10:45	03/20/17 18:12	10

Lab Sample ID: 280-946H-H

Matri3: Solid

Percent Solids: 82x7

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94618-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-DQP01-0x25

Date Collected: 07/10/16 00:00

Date Received: 07/11/16 20:05

Lab Sample ID: 280-94618-6

Matrix: Solid

Percent Solids: 66%

Sample	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	18000		300	36	mg/Kg	☆	05/37/36 30:47	05/36/36 32:53	30

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	3089	D X	49 - 115	03/15/17 10:45	03/17/17 12:31	10

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	OTPH1 (49-115)
280-94768-1	RC4-HEL06-0.25	72
280-94768-2	RC4-CLU07-0.25	951 X D
280-94768-2	RC4-CLU07-0.25	427 D X
280-94768-2 MS	RC4-CLU07-0.25	352 X D
280-94768-2 MSD	RC4-CLU07-0.25	370 X D
280-94768-3	RC4-HEL08-0.25	73
280-94768-3 MS	RC4-HEL08-0.25	54
280-94768-3 MSD	RC4-HEL08-0.25	66
280-94768-4	RC4-CLU09-0.25	561 D X
280-94768-5	RC4-HEL10-0.25	75
280-94768-6	RC4-CLU11-0.25	224 X D
280-94768-7	RC4-DUP01-0.25	3089 D X
LCS 280-365534/2-B	Lab Control Sample	77
LCS 280-365546/2-A	Lab Control Sample	77
MB 280-365534/1-B	Method Blank	81
MB 280-365546/1-A	Method Blank	75

Surrogate Legend

OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 280-365534/1-B

Matrix: Solid

Analysis Batch: 365788

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365534

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		4.0	0.68	mg/Kg		03/15/17 10:46	03/17/17 02:02	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	81		49 - 115				03/15/17 10:46	03/17/17 02:02	1

Lab Sample ID: LCS 280-365534/2-B

Matrix: Solid

Analysis Batch: 365788

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365534

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
DRO (C10-C28)	66.7	61.7		mg/Kg		93	53 - 115
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
o-Terphenyl (Surr)	77		49 - 115				

Lab Sample ID: 280-94768-2 MS

Matrix: Solid

Analysis Batch: 365788

Client Sample ID: RC4-CLU07-0.25

Prep Type: Total/NA

Prep Batch: 365534

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
DRO (C10-C28)	13000		82.0	15400	4 D	mg/Kg	☼	2939	56 - 115
Surrogate	MS %Recovery	MS Qualifier	Limits						
o-Terphenyl (Surr)	352	X D	49 - 115						

Lab Sample ID: 280-94768-2 MSD

Matrix: Solid

Analysis Batch: 365788

Client Sample ID: RC4-CLU07-0.25

Prep Type: Total/NA

Prep Batch: 365534

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
DRO (C10-C28)	13000		77.8	15800	4 D	mg/Kg	☼	3669	56 - 115	3	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
o-Terphenyl (Surr)	370	X D	49 - 115								

Lab Sample ID: MB 280-365546/1-A

Matrix: Solid

Analysis Batch: 365789

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365546

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		4.0	0.68	mg/Kg		03/15/17 10:45	03/17/17 06:45	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	75		49 - 115				03/15/17 10:45	03/17/17 06:45	1

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: LCS 280-365546/2-A

Matrix: Solid

Analysis Batch: 365789

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365546

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
DRO (C10-C28)	66.7	59.5		mg/Kg		89	53 - 115
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
o-Terphenyl (Surr)	77		49 - 115				

Lab Sample ID: 280-94768-3 MS

Matrix: Solid

Analysis Batch: 365789

Client Sample ID: RC4-HEL08-0.25

Prep Type: Total/NA

Prep Batch: 365546

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
DRO (C10-C28)	2.9	J F2	76.1	48.3		mg/Kg	☼	60	56 - 115
Surrogate	MS %Recovery	MS Qualifier	Limits						
o-Terphenyl (Surr)	54		49 - 115						

Lab Sample ID: 280-94768-3 MSD

Matrix: Solid

Analysis Batch: 365789

Client Sample ID: RC4-HEL08-0.25

Prep Type: Total/NA

Prep Batch: 365546

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
DRO (C10-C28)	2.9	J F2	77.7	63.7	F2	mg/Kg	☼	78	56 - 115	27	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
o-Terphenyl (Surr)	66		49 - 115								

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-2

GC Semi VOA

Prep Batch: 365534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-2	RC4-CLU07-0.25	Total/NA	Solid	3546	
MB 280-365534/1-B	Method Blank	Total/NA	Solid	3546	
LCS 280-365534/2-B	Lab Control Sample	Total/NA	Solid	3546	
280-94768-2 MS	RC4-CLU07-0.25	Total/NA	Solid	3546	
280-94768-2 MSD	RC4-CLU07-0.25	Total/NA	Solid	3546	

Prep Batch: 365546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Total/NA	Solid	3546	
280-94768-2	RC4-CLU07-0.25	Total/NA	Solid	3546	
280-94768-3	RC4-HEL08-0.25	Total/NA	Solid	3546	
280-94768-4	RC4-CLU09-0.25	Total/NA	Solid	3546	
280-94768-5	RC4-HEL10-0.25	Total/NA	Solid	3546	
280-94768-6	RC4-CLU11-0.25	Total/NA	Solid	3546	
280-94768-7	RC4-DUP01-0.25	Total/NA	Solid	3546	
MB 280-365546/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-365546/2-A	Lab Control Sample	Total/NA	Solid	3546	
280-94768-3 MS	RC4-HEL08-0.25	Total/NA	Solid	3546	
280-94768-3 MSD	RC4-HEL08-0.25	Total/NA	Solid	3546	

Cleanup Batch: 365740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-2	RC4-CLU07-0.25	Total/NA	Solid	3630M	365534
MB 280-365534/1-B	Method Blank	Total/NA	Solid	3630M	365534
LCS 280-365534/2-B	Lab Control Sample	Total/NA	Solid	3630M	365534
280-94768-2 MS	RC4-CLU07-0.25	Total/NA	Solid	3630M	365534
280-94768-2 MSD	RC4-CLU07-0.25	Total/NA	Solid	3630M	365534

Analysis Batch: 365788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-2	RC4-CLU07-0.25	Total/NA	Solid	8015C	365740
MB 280-365534/1-B	Method Blank	Total/NA	Solid	8015C	365740
LCS 280-365534/2-B	Lab Control Sample	Total/NA	Solid	8015C	365740
280-94768-2 MS	RC4-CLU07-0.25	Total/NA	Solid	8015C	365740
280-94768-2 MSD	RC4-CLU07-0.25	Total/NA	Solid	8015C	365740

Analysis Batch: 365789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-1	RC4-HEL06-0.25	Total/NA	Solid	8015C	365546
280-94768-2	RC4-CLU07-0.25	Total/NA	Solid	8015C	365546
280-94768-3	RC4-HEL08-0.25	Total/NA	Solid	8015C	365546
280-94768-4	RC4-CLU09-0.25	Total/NA	Solid	8015C	365546
280-94768-5	RC4-HEL10-0.25	Total/NA	Solid	8015C	365546
280-94768-7	RC4-DUP01-0.25	Total/NA	Solid	8015C	365546
MB 280-365546/1-A	Method Blank	Total/NA	Solid	8015C	365546
LCS 280-365546/2-A	Lab Control Sample	Total/NA	Solid	8015C	365546
280-94768-3 MS	RC4-HEL08-0.25	Total/NA	Solid	8015C	365546
280-94768-3 MSD	RC4-HEL08-0.25	Total/NA	Solid	8015C	365546

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-2

GC Semi VOA (Continued)

Analysis Batch: 366044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94768-6	RC4-CLU11-0.25	Total/NA	Solid	8015C	365546

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-2

Client Sample ID: RC4-HEL06-0.25

Date Collected: 03/10/17 14:10

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-1

Matrix: Solid

vercent SolidT: 80.8

v rep BPpe	Aatch BPpe	Aatch Method	Run	Dil Factor	Initial s mount	Final s mount	Aatch Number	v prepared or s nalPzed	s nalPTt	Lab
Total/NA	Prep	3546			30.4 g	1 mL	365546	03/15/17 10:45	JRA	TAL DEN
Total/NA	Analysis	8015C		1			365789	03/17/17 07:42	DAW	TAL DEN

Client Sample ID: RC4-CLU07-0.25

Date Collected: 03/10/17 14:20

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-2

Matrix: Solid

vercent SolidT: 81.3

v rep BPpe	Aatch BPpe	Aatch Method	Run	Dil Factor	Initial s mount	Final s mount	Aatch Number	v prepared or s nalPzed	s nalPTt	Lab
Total/NA	Prep	3546			30.2 g	2 mL	365534	03/15/17 10:46	JRA	TAL DEN
Total/NA	Cleanup	3630M			2 mL	2 mL	365740	03/16/17 12:38	CDC	TAL DEN
Total/NA	Analysis	8015C		10			365788	03/17/17 02:59	KDK	TAL DEN
Total/NA	Prep	3546			30.0 g	2 mL	365546	03/15/17 10:45	JRA	TAL DEN
Total/NA	Analysis	8015C		10			365789	03/17/17 08:11	DAW	TAL DEN

Client Sample ID: RC4-HEL08-0.25

Date Collected: 03/10/17 15:45

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-3

Matrix: Solid

vercent SolidT: 85.8

v rep BPpe	Aatch BPpe	Aatch Method	Run	Dil Factor	Initial s mount	Final s mount	Aatch Number	v prepared or s nalPzed	s nalPTt	Lab
Total/NA	Prep	3546			30.5 g	1 mL	365546	03/15/17 10:45	JRA	TAL DEN
Total/NA	Analysis	8015C		1			365789	03/17/17 08:40	DAW	TAL DEN

Client Sample ID: RC4-CLU09-0.25

Date Collected: 03/10/17 15:55

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-4

Matrix: Solid

vercent SolidT: 76.4

v rep BPpe	Aatch BPpe	Aatch Method	Run	Dil Factor	Initial s mount	Final s mount	Aatch Number	v prepared or s nalPzed	s nalPTt	Lab
Total/NA	Prep	3546			30.7 g	2 mL	365546	03/15/17 10:45	JRA	TAL DEN
Total/NA	Analysis	8015C		10			365789	03/17/17 10:05	DAW	TAL DEN

Client Sample ID: RC4-HEL10-0.25

Date Collected: 03/11/17 09:20

Date Received: 03/11/17 20:05

Lab Sample ID: 280-94768-5

Matrix: Solid

vercent SolidT: 92.8

v rep BPpe	Aatch BPpe	Aatch Method	Run	Dil Factor	Initial s mount	Final s mount	Aatch Number	v prepared or s nalPzed	s nalPTt	Lab
Total/NA	Prep	3546			30.2 g	1 mL	365546	03/15/17 10:45	JRA	TAL DEN
Total/NA	Analysis	8015C		1			365789	03/17/17 10:34	DAW	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-2

Client Sample ID: RC4-CLU11-0.25

Lab Sample ID: 280-94768-6

Date Collected: 03/11/17 09:35

Matrix: Solid

Date Received: 03/11/17 20:05

vercent SolidT: 82.3

vrep BPpe	Aatch BPpe	Aatch Method	Run	Dil Factor	Initial s mount	Final s mount	Aatch Number	vprepared or s nalPzed	s nalPTt	Lab
Total/NA	Prep	3546			31.4 g	1 mL	365546	03/15/17 10:45	JRA	TAL DEN
Total/NA	Analysis	8015C		10			366044	03/20/17 18:12	KDK	TAL DEN

Client Sample ID: RC4-DUv01-0.25

Lab Sample ID: 280-94768-7

Date Collected: 03/10/17 00:00

Matrix: Solid

Date Received: 03/11/17 20:05

vercent SolidT: 77.3

vrep BPpe	Aatch BPpe	Aatch Method	Run	Dil Factor	Initial s mount	Final s mount	Aatch Number	vprepared or s nalPzed	s nalPTt	Lab
Total/NA	Prep	3546			30.8 g	2 mL	365546	03/15/17 10:45	JRA	TAL DEN
Total/NA	Analysis	8015C		10			365789	03/17/17 12:31	DAW	TAL DEN

LaboratorP ReferenceT:

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

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94618-2

Laboratory: TestAmerica Denver

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
A2LA	DoD ELAP		2906.07	70-37-76
A2LA	ISO/IEC 76025		2906.07	70-37-76
Alabama	State Program	4	40630	09-30-72 *
Alaska (UST)	State Program	70	UST-30	04-05-78
Arizona	State Program	9	AZ0673	72-20-76
Arkansas DEQ	State Program	1	88-0186	01-07-76
California	State Program	9	2573	07-08-78 *
Connecticut	State Program	7	PH-0181	09-30-78
Florida	NELAP	4	E86116	01-30-76
Georgia	State Program	4	N/A	07-08-78
Illinois	NELAP	5	200076	04-30-78
Iowa	State Program	6	360	72-07-78 *
Kansas	NELAP	6	E-70711	04-30-76 *
Louisiana	NELAP	1	02091	01-30-76
Maine	State Program	7	CO0002	03-03-79
Minnesota	NELAP	5	8-999-405	72-37-76 *
Nevada	State Program	9	CO0021	06-37-76
New Hampshire	NELAP	7	205370	04-28-76
New Jersey	NELAP	2	CO004	01-30-76
New York	NELAP	2	77914	04-07-78
North Carolina (WW/SW)	State Program	4	358	72-37-76
North Dakota	State Program	8	R-034	07-09-78
Oklahoma	State Program	1	8174	08-37-76
Oregon	NELAP	70	4025	07-08-78
Pennsylvania	NELAP	3	18-00114	06-37-76
South Carolina	State Program	4	62002007	07-09-76 *
Texas	NELAP	1	T704604783-71-72	09-30-76
USDA	Federal		P330-71-00396	72-75-79
Utah	NELAP	8	CO00021	06-37-76
Virginia	NELAP	3	410232	01-74-76
Washington	State Program	70	C583	08-02-76
West Virginia DEP	State Program	3	354	77-30-76
Wisconsin	State Program	5	999175430	08-37-76
Wyoming (UST)	A2LA	8	2906.07	70-37-76

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

TestAmerica Denver

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Job Number: 280-94768-2

List Source: TestAmerica Denver

Creator: Woodworth, Sean P

TestAmerica Denver

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver

4955 Yarrow Street

Arvada, CO 80002

Tel: (303)736-0100

TestAmerica Job ID: 280-94790-1

Client Project/Site: Stantec CVX - Rangely, CO

Revision: 1

For:

Stantec Consulting Corp.

2000 South Colorado Blvd

Suite 2-300

Denver, Colorado 80222

Attn: Ms. Bethany Lucente



Authorized for release by:

4/5/2017 4:33:23 PM

Jamie Ide, Project Manager I

(303)736-0126

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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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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

Qualifiers

GC/MS mV O

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.
X	Surrogate is outside control limits

GC/MS Sep i mV O

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC mV O

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 Sep i mV O

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.

Metals

Qualifier	Qualifier Description
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.
B	Compound was found in the blank and sample.
*	LCS or LCSD is outside acceptance limits.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
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 are only used abbreviations that 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, 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)

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

Job ID: 280-94790-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Stantec Consulting Corp.

Project: Stantec CVX - Rangely, CO

Report Number: 280-94790-1

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.

REVISION - 4/5/17

Per client request 3/31/17, the ORO originally requested on the chain of custody was removed from the analytical report.

REVISION- 3/23/2017

The level 4 report for job 280-94790-1 was revised due to the samples were originally linked to the incorrect calibration ICIS and ICV batch for the 8270D SIM analysis (incorrect batch 280-365210). The samples in this batch are now linked to the correct ICIS and ICV batch 280-365567. Please note that the sample results are unchanged, but the forms in the raw data have been updated to include the information for the correct batch. This revision impacts the level IV data package only.

RECEIPT

The samples were received on 03/13/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.3 C.

The sample collection time listed on the container labels of sample volume received for sample RC4-HER12-0.25 (280-94790-1) did not match the chain of custody. The container labels list a collection time of 1250 while the chain of custody lists a collection time of 1245. The laboratory logged the sample collection time per the chain of custody. The client was notified on 3/14/2017.

The sample ID on the container labels of eight of eight 4-oz soil jars received for sample RC4-HER13-0.25 (280-94790-2) does not match the chain of custody. The container labels list a sample ID of RC4-CLD13-0.25 while the chain of custody lists a sample ID of RC4-HER13-0.25. It can be noted that all other containers received for this sample have a sample ID that matches the chain of custody and all containers received for this sample have a collection date/time that matches the information on the chain of custody for this sample. The laboratory logged the sample ID per the information on the chain of custody. The client was notified on 3/14/2017.

The container count on the chain of custody for sample RC4-HER14-0.25 (280-94790-3) does not match the container count received. The chain of custody lists a container count of 13 while the laboratory only received 12 containers. Sufficient sample volume was received to perform the requested analyses. The client was notified on 3/14/2017.

The requested 7196A trivalent and hexavalent chromium analyses and electrical conductivity (EC) analyses were performed by TestAmerica's Nashville laboratory.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples RC4-HER12-0.25 (280-94790-1), RC4-HER13-0.25 (280-94790-2) and RC4-HER14-0.25 (280-94790-3) were analyzed for

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

Job ID: 280-94790-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were prepared on 03/12/2017 and analyzed on 03/15/2017 and 03/16/2017.

Dibromofluoromethane (Surr) failed the surrogate recovery criteria high for RC4-HER13-0.25 (280-94790-2). This sample did not contain any target analytes; therefore, re-analysis was not performed. The associated results have been flagged accordingly.

Dibromofluoromethane (Surr) failed the surrogate recovery criteria high for RC4-HER14-0.25 (280-94790-3). This sample did not contain any target analytes; therefore, re-analysis was not performed. The associated results have been flagged accordingly.

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

SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM)

Samples RC4-HER12-0.25 (280-94790-1), RC4-HER13-0.25 (280-94790-2) and RC4-HER14-0.25 (280-94790-3) were analyzed for Semivolatile organic compounds - Selected Ion Mode (SIM) in accordance with EPA SW-846 Method 8270D SIM. The samples were prepared and analyzed on 03/17/2017.

The following samples could not be thoroughly homogenized before sub-sampling was performed due to sample matrix: RC4-HER12-0.25 (280-94790-1) and RC4-HER13-0.25 (280-94790-2). The sample were too muddy.

The initial aliquot and surrogate aliquot used for extraction of the following sample was split between two extraction vessels with the routine volume of solvent added to each vessel: RC4-HER12-0.25 (280-94790-1) and RC4-HER13-0.25 (280-94790-2). After the extraction, the extracts from both vessels were combined and concentrated. This was done due to sample matrix was especially wet.

Several analytes were detected in method blank MB 280-365868/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

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

GASOLINE RANGE ORGANICS (GRO)

Samples RC4-HER12-0.25 (280-94790-1), RC4-HER13-0.25 (280-94790-2) and RC4-HER14-0.25 (280-94790-3) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015C - GRO. The samples were prepared on 03/12/2017 and analyzed on 03/17/2017.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batches 280-365877, 280-365877 and 280-365877. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

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

DIESEL RANGE ORGANICS

Samples RC4-HER12-0.25 (280-94790-1), RC4-HER13-0.25 (280-94790-2) and RC4-HER14-0.25 (280-94790-3) were analyzed for diesel range organics in accordance with EPA SW-846 Method 8015C - DRO. The samples were prepared on 03/15/2017 and analyzed on 03/17/2017.

The initial aliquot and surrogate aliquot used for extraction of the following sample was split between two extraction vessels with the routine volume of solvent added to each vessel: RC4-HER13-0.25 (280-94790-2). After the extraction, the extracts from both vessels were combined and concentrated. This was done due to prior analyst experience.

The following samples in preparation batch 280-365534 and 280-365740 and analytical batch 280-365788 were diluted to bring the concentration of target analytes within the calibration range: (280-94768-B-2-H), (280-94768-B-2-F MS) and (280-94768-B-2-G MSD). 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.

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

Job ID: 280-94790-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

SODIUM ABSORPTION RATIO

Samples RC4-HER12-0.25 (280-94790-1), RC4-HER13-0.25 (280-94790-2) and RC4-HER14-0.25 (280-94790-3) were analyzed for Sodium Absorption Ratio in accordance with USDA Handbook 60 - 20B. The samples were prepared on 03/14/2017 and analyzed on 03/15/2017.

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

TOTAL METALS (ICP)

Samples RC4-HER12-0.25 (280-94790-1), RC4-HER13-0.25 (280-94790-2) and RC4-HER14-0.25 (280-94790-3) were analyzed for Total Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 03/14/2017 and analyzed on 03/15/2017 and 03/16/2017.

Magnesium, Calcium and Chromium were detected in method blank MB 280-365399/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Silver failed the recovery criteria high for LCS 280-365399/2-A at 117% (limits 87-114%). These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. The associated results have been flagged accordingly.

Lead, Silver and Selenium exceeded the RPD limit for the MSD of sample RC4-HER12-0.25MSD (280-94790-1) in batch 280-365846. The associated results have been flagged accordingly.

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

METALS (ICPMS)

Samples RC4-HER12-0.25 (280-94790-1), RC4-HER13-0.25 (280-94790-2) and RC4-HER14-0.25 (280-94790-3) were analyzed for metals (ICPMS) in accordance with SW 846 6020A. The samples were prepared on 03/14/2017 and analyzed on 03/15/2017.

Arsenic exceeded the RPD limit for the MSD of sample RC4-HER12-0.25MSD (280-94790-1) in batch 280-365518. The associated laboratory control sample (LCS) recoveries met acceptance criteria, and the sample results have been flagged accordingly.

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

TOTAL MERCURY (CVAA)

Samples RC4-HER12-0.25 (280-94790-1), RC4-HER13-0.25 (280-94790-2) and RC4-HER14-0.25 (280-94790-3) were analyzed for total mercury (CVAA) in accordance with EPA SW-846 Method 7471A. The samples were prepared and analyzed on 03/14/2017.

The following samples could not be thoroughly homogenized before sub-sampling was performed due to sample matrix: RC4-HER12-0.25 (280-94790-1), RC4-HER13-0.25 (280-94790-2) and RC4-HER14-0.25 (280-94790-3). The sample was clay.

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

HEXAVALENT CHROMIUM

Samples RC4-HER12-0.25 (280-94790-1), RC4-HER13-0.25 (280-94790-2) and RC4-HER14-0.25 (280-94790-3) were analyzed for hexavalent chromium in accordance with EPA SW-846 Method 3060A/7196A. The samples were prepared on 03/15/2017 and analyzed on 03/16/2017.

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

TRIVALENT CHROMIUM

Samples RC4-HER12-0.25 (280-94790-1), RC4-HER13-0.25 (280-94790-2) and RC4-HER14-0.25 (280-94790-3) were analyzed for Trivalent Chromium in accordance with SW-846 7196A_CR3. The samples were analyzed on 03/16/2017.

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

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

Job ID: 280-94790-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

PH (CORROSIVITY)

Samples RC4-HER12-0.25 (280-94790-1), RC4-HER13-0.25 (280-94790-2) and RC4-HER14-0.25 (280-94790-3) were analyzed for pH (corrosivity) in accordance with EPA SW-846 Method 9045D. The samples were leached on 03/14/2017 and analyzed on 03/14/2017.

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

PH

Samples RC4-HER12-0.25 (280-94790-1), RC4-HER13-0.25 (280-94790-2) and RC4-HER14-0.25 (280-94790-3) were analyzed for pH in accordance with 9050A. The samples were prepared and analyzed on 03/17/2017.

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

PERCENT SOLIDS

Samples RC4-HER12-0.25 (280-94790-1), RC4-HER13-0.25 (280-94790-2) and RC4-HER14-0.25 (280-94790-3) were analyzed for percent solids in accordance with ASTM D2216-90. The samples were analyzed on 03/15/2017.

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

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

Client Sample ID: RC4-HERL0-2.05

ba8 Sample ID: 092-64162-L

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil	Fac	D	Method	Prep Type
Benzene	0.0028	J	0.0053	0.00049	mg/Kg	1	✱	8260B	Total/NA	
Ethylbenzene	0.00093	J	0.0053	0.00070	mg/Kg	1	✱	8260B	Total/NA	
Toluene	0.0044	J	0.0053	0.00073	mg/Kg	1	✱	8260B	Total/NA	
m-Xylene & p-Xylene	0.0021	J	0.0026	0.0011	mg/Kg	1	✱	8260B	Total/NA	
o-Xylene	0.00089	J	0.0026	0.00064	mg/Kg	1	✱	8260B	Total/NA	
Xylenes, Total	0.0030	J	0.0053	0.00064	mg/Kg	1	✱	8260B	Total/NA	
Naphthalene	0.0066		0.0057	0.00037	mg/Kg	1	✱	8270D SIM	Total/NA	
DRO (C10-C28)	3.5	J	4.8	0.82	mg/Kg	1	✱	8015C	Total/NA	
Na	39		10	10	mg/Kg	10		20B	Soluble	
Ca	87		2.0	2.0	mg/Kg	10		20B	Soluble	
Mg	13		2.0	2.0	mg/Kg	10		20B	Soluble	
Barium	100		1.0	0.11	mg/Kg	1	✱	6010C	Total/NA	
Cadmium	0.31	J	0.52	0.042	mg/Kg	1	✱	6010C	Total/NA	
Chromium	13	B	1.6	0.060	mg/Kg	1	✱	6010C	Total/NA	
Lead	14	F2	0.93	0.32	mg/Kg	1	✱	6010C	Total/NA	
Boron	12		10	1.0	mg/Kg	1	✱	6010C	Total/NA	
Calcium	22000	B	52	15	mg/Kg	1	✱	6010C	Total/NA	
Copper	13		2.1	0.22	mg/Kg	1	✱	6010C	Total/NA	
Magnesium	9300	B	21	3.8	mg/Kg	1	✱	6010C	Total/NA	
Nickel	15		4.1	0.14	mg/Kg	1	✱	6010C	Total/NA	
Sodium	180	J F2	520	61	mg/Kg	1	✱	6010C	Total/NA	
Zinc	66		3.1	0.41	mg/Kg	1	✱	6010C	Total/NA	
Arsenic	7.0	F2	0.68	0.058	mg/Kg	1	✱	6020A	Total/NA	
Mercury	0.025		0.024	0.0078	mg/Kg	1	✱	7471A	Total/NA	
Chromium, hex	6.7		6.2	2.5	mg/Kg	1	✱	7196A	Total/NA	
Chromium, trivalent	6.3		6.3	2.5	mg/Kg	1	✱	7196A	Total/NA	
pH adj. to 25 deg C	8.3	HF	0.1	0.1	SU	1		9045D	Soluble	
Temperature	24.3	HF	1.0	1.0	Degrees C	1		9045D	Soluble	
Electrical Conductivity	0.39		0.010	0.010	mmhos/cm	1		9050A	Soluble	

Client Sample ID: RC4-HERL3-2.05

ba8 Sample ID: 092-64162-0

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil	Fac	D	Method	Prep Type
Benzene	0.012		0.0059	0.00056	mg/Kg	1	✱	8260B	Total/NA	
Ethylbenzene	0.00097	J	0.0059	0.00079	mg/Kg	1	✱	8260B	Total/NA	
Toluene	0.0073		0.0059	0.00082	mg/Kg	1	✱	8260B	Total/NA	
m-Xylene & p-Xylene	0.0021	J	0.0030	0.0012	mg/Kg	1	✱	8260B	Total/NA	
o-Xylene	0.00086	J	0.0030	0.00072	mg/Kg	1	✱	8260B	Total/NA	
Xylenes, Total	0.0030	J	0.0059	0.00072	mg/Kg	1	✱	8260B	Total/NA	
Chrysene	0.0018	J B	0.0063	0.0013	mg/Kg	1	✱	8270D SIM	Total/NA	
Naphthalene	0.0032	J	0.0063	0.00041	mg/Kg	1	✱	8270D SIM	Total/NA	
GRO (C6-C10)	0.45	J	1.4	0.38	mg/Kg	1	✱	8015C	Total/NA	
DRO (C10-C28)	1.6	J	4.9	0.84	mg/Kg	1	✱	8015C	Total/NA	
Na	12		10	10	mg/Kg	10		20B	Soluble	
Ca	89		2.0	2.0	mg/Kg	10		20B	Soluble	
Mg	13		2.0	2.0	mg/Kg	10		20B	Soluble	
Barium	110		0.91	0.094	mg/Kg	1	✱	6010C	Total/NA	
Cadmium	0.29	J	0.45	0.037	mg/Kg	1	✱	6010C	Total/NA	
Chromium	11	B	1.4	0.053	mg/Kg	1	✱	6010C	Total/NA	
Lead	13		0.82	0.28	mg/Kg	1	✱	6010C	Total/NA	

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

Client Sample ID: RC4-HERL3-2.05 (Continued)

ba8 Sample ID: 092-64162-0

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil	Fac	D	Method	Prep Type
Boron	10		9.1	0.89	mg/Kg	1		✖	6010C	Total/NA
Calcium	19000	B	45	13	mg/Kg	1		✖	6010C	Total/NA
Copper	12		1.8	0.20	mg/Kg	1		✖	6010C	Total/NA
Magnesium	8000	B	18	3.4	mg/Kg	1		✖	6010C	Total/NA
Nickel	14		3.6	0.12	mg/Kg	1		✖	6010C	Total/NA
Sodium	130	J	450	54	mg/Kg	1		✖	6010C	Total/NA
Zinc	60		2.7	0.36	mg/Kg	1		✖	6010C	Total/NA
Arsenic	6.7		0.61	0.051	mg/Kg	1		✖	6020A	Total/NA
Mercury	0.023	J	0.027	0.0087	mg/Kg	1		✖	7471A	Total/NA
Chromium, hex	6.0	J	6.5	2.6	mg/Kg	1		✖	7196A	Total/NA
Chromium, trivalent	5.0	J	6.6	2.6	mg/Kg	1		✖	7196A	Total/NA
pH adj. to 25 deg C	8.5	HF	0.1	0.1	SU	1			9045D	Soluble
Temperature	24.1	HF	1.0	1.0	Degrees C	1			9045D	Soluble
Electrical Conductivity	0.29		0.010	0.010	mmhos/cm	1			9050A	Soluble

Client Sample ID: RC4-HERL4-2.05

ba8 Sample ID: 092-64162-3

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil	Fac	D	Method	Prep Type
Benzene	0.0024	J	0.0047	0.00044	mg/Kg	1		✖	8260B	Total/NA
Ethylbenzene	0.00086	J	0.0047	0.00063	mg/Kg	1		✖	8260B	Total/NA
Toluene	0.0039	J	0.0047	0.00064	mg/Kg	1		✖	8260B	Total/NA
m-Xylene & p-Xylene	0.0025		0.0023	0.00097	mg/Kg	1		✖	8260B	Total/NA
o-Xylene	0.0011	J	0.0023	0.00057	mg/Kg	1		✖	8260B	Total/NA
Xylenes, Total	0.0036	J	0.0047	0.00057	mg/Kg	1		✖	8260B	Total/NA
Acenaphthene	0.0066		0.0057	0.00018	mg/Kg	1		✖	8270D SIM	Total/NA
Anthracene	0.0017	J	0.0057	0.00082	mg/Kg	1		✖	8270D SIM	Total/NA
Benzo[a]anthracene	0.027	B	0.0057	0.0010	mg/Kg	1		✖	8270D SIM	Total/NA
Benzo[a]pyrene	0.046	B	0.0057	0.00085	mg/Kg	1		✖	8270D SIM	Total/NA
Benzo[b]fluoranthene	0.071	B	0.0057	0.0014	mg/Kg	1		✖	8270D SIM	Total/NA
Benzo[k]fluoranthene	0.026		0.0057	0.0011	mg/Kg	1		✖	8270D SIM	Total/NA
Chrysene	0.072	B	0.0057	0.0011	mg/Kg	1		✖	8270D SIM	Total/NA
Dibenz(a,h)anthracene	0.0086		0.0057	0.0015	mg/Kg	1		✖	8270D SIM	Total/NA
Fluoranthene	0.14	B	0.0057	0.0011	mg/Kg	1		✖	8270D SIM	Total/NA
Fluorene	0.0050	J	0.0057	0.00054	mg/Kg	1		✖	8270D SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.037		0.0057	0.0013	mg/Kg	1		✖	8270D SIM	Total/NA
Naphthalene	0.0076		0.0057	0.00037	mg/Kg	1		✖	8270D SIM	Total/NA
Pyrene	0.12	B	0.0057	0.0013	mg/Kg	1		✖	8270D SIM	Total/NA
DRO (C10-C28)	6.6		4.8	0.81	mg/Kg	1		✖	8015C	Total/NA
Na	29		10	10	mg/Kg	10			20B	Soluble
Ca	66		2.0	2.0	mg/Kg	10			20B	Soluble
Mg	9.7		2.0	2.0	mg/Kg	10			20B	Soluble
Barium	110		0.86	0.090	mg/Kg	1		✖	6010C	Total/NA
Cadmium	0.25	J	0.43	0.035	mg/Kg	1		✖	6010C	Total/NA
Chromium	9.3	B	1.3	0.050	mg/Kg	1		✖	6010C	Total/NA
Lead	12		0.78	0.27	mg/Kg	1		✖	6010C	Total/NA
Boron	8.4	J	8.6	0.85	mg/Kg	1		✖	6010C	Total/NA
Calcium	17000	B	43	12	mg/Kg	1		✖	6010C	Total/NA
Copper	9.9		1.7	0.19	mg/Kg	1		✖	6010C	Total/NA
Magnesium	7000	B	17	3.2	mg/Kg	1		✖	6010C	Total/NA
Nickel	13		3.5	0.11	mg/Kg	1		✖	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

Client Sample ID: RC4-HERL4-2.05 (Continued)

ba8 Sample ID: 092-64162-3

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil Fac	D	Method	Prep Type
Sodium	130	J	430	51	mg/Kg	1	☼	6010C	Total/NA
Zinc	57		2.6	0.34	mg/Kg	1	☼	6010C	Total/NA
Arsenic	6.4		0.64	0.054	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.018	J	0.021	0.0070	mg/Kg	1	☼	7471A	Total/NA
Chromium, hex	6.1		5.9	2.3	mg/Kg	1	☼	7196A	Total/NA
Chromium, trivalent	3.2	J	6.0	2.4	mg/Kg	1	☼	7196A	Total/NA
pH adj. to 25 deg C	8.6	HF	0.1	0.1	SU	1		9045D	Soluble
Temperature	24.1	HF	1.0	1.0	Degrees C	1		9045D	Soluble
Electrical Conductivity	0.23		0.010	0.010	mmhos/cm	1		9050A	Soluble

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94690-1

Method	Method Description	Protocol	Laboratory
82B0d	Volatile Organic Compound(s) (MC/) SL	SW84B	TAE DN7
8260D SI)	Semivolatile Organic Compound(s) (MC/) S SI) L	SW84B	TAE DN7
8015C	7 onhalogenate(Organics using MC/FID -) o(ifie(Gasoline Range OrganicsL	SW84B	TAE DN7
8015C	7 onhalogenate(Organics using MC/FID -) o(ifie(Diesel Range OrganicsL	SW84B	TAE DN7
20d	So(ium A(sorption Ratio	USDA	TAE DN7
B010C	) etals GCPL	SW84B	TAE DN7
B020A	) etals GCP/) SL	SW84B	TAE DN7
6461A	) ercury GVAAL	SW84B	TAE DN7
619BA	Chromium, Hexavalent	SW84B	TAE 7 SH
619BA	Chromium, Trivalent ColorimetricL	SW84B	TAE 7 SH
9045D	pH	SW84B	TAE DN7
9050A	Specific Con(uctance	SW84B	TAE 7 SH
) oisture	Percent) oisture	NPA	TAE DN7

Protocol References:

NPA = US Nnvironmental Protection Agency

SW84B = "Test) etho(s For Nvaluating Soli(Waste, Physical/Chemical) etho(s", Thir(N(ition, 7 ovember 198B An(Its Up(ates.

USDA = "USDA Agriculture Han(book B0, section 20d".

Laboratory References:

TAE DN7 = TestAmerica Denver, 4955 Yarrow Street, Arva(a, CO 80002, TNE G03L63B-0100

TAE 7 SH = TestAmerica 7 ashville, 29B0 Foster Creighton Drive, 7 ashville, T7 36204, TNE G15L62B-0166

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-94790-1	RC4-HER12-0.25	Solid	03/12/17 12:45	03/13/17 20:06
280-94790-2	RC4-HER13-0.25	Solid	03/12/17 13:15	03/13/17 20:06
280-94790-3	RC4-HER14-0.25	Solid	03/12/17 13:55	03/13/17 20:06

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

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

Client Sample ID: RC4-HER12-0.25

Date Collected: 03/12/17 12:45

Date Received: 03/13/17 20:06

Lab Sample ID: 280-94790-1

Matrix: Solid

Percent Solids: 80.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0028	J	0.0053	0.00049	mg/Kg	☼	03/12/17 12:45	03/16/17 05:36	1
Ethylbenzene	0.00093	J	0.0053	0.00070	mg/Kg	☼	03/12/17 12:45	03/16/17 05:36	1
Toluene	0.0044	J	0.0053	0.00073	mg/Kg	☼	03/12/17 12:45	03/16/17 05:36	1
m-Xylene & p-Xylene	0.0021	J	0.0026	0.0011	mg/Kg	☼	03/12/17 12:45	03/16/17 05:36	1
o-Xylene	0.00089	J	0.0026	0.00064	mg/Kg	☼	03/12/17 12:45	03/16/17 05:36	1
Xylenes, Total	0.0030	J	0.0053	0.00064	mg/Kg	☼	03/12/17 12:45	03/16/17 05:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	129		53 - 140	0/ 71271: 12745	0/ 71971: 0579	1
8oluene-d3 (Surr)	X5		30 - 129	0/ 71271: 12745	0/ 71971: 0579	1
4-6roB ortuorof enbene (Surr)	XX		: 9 - 12:	0/ 71271: 12745	0/ 71971: 0579	1
Dif roB ortuoroB ethane (Surr)	121		: 5 - 121	0/ 71271: 12745	0/ 71971: 0579	1

Client Sample ID: RC4-HER13-0.25

Date Collected: 03/12/17 13:15

Date Received: 03/13/17 20:06

Lab Sample ID: 280-94790-2

Matrix: Solid

Percent Solids: 76.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.012		0.0059	0.00056	mg/Kg	☼	03/12/17 13:15	03/15/17 21:04	1
Ethylbenzene	0.00097	J	0.0059	0.00079	mg/Kg	☼	03/12/17 13:15	03/15/17 21:04	1
Toluene	0.0073		0.0059	0.00082	mg/Kg	☼	03/12/17 13:15	03/15/17 21:04	1
m-Xylene & p-Xylene	0.0021	J	0.0030	0.0012	mg/Kg	☼	03/12/17 13:15	03/15/17 21:04	1
o-Xylene	0.00086	J	0.0030	0.00072	mg/Kg	☼	03/12/17 13:15	03/15/17 21:04	1
Xylenes, Total	0.0030	J	0.0059	0.00072	mg/Kg	☼	03/12/17 13:15	03/15/17 21:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	1/ :		53 - 140	0/ 71271: 1/ 715	0/ 71571: 2174	1
8oluene-d3 (Surr)	10:		30 - 129	0/ 71271: 1/ 715	0/ 71571: 2174	1
4-6roB ortuorof enbene (Surr)	103		: 9 - 12:	0/ 71271: 1/ 715	0/ 71571: 2174	1
Dif roB ortuoroB ethane (Surr)	129 z		: 5 - 121	0/ 71271: 1/ 715	0/ 71571: 2174	1

Client Sample ID: RC4-HER14-0.25

Date Collected: 03/12/17 13:55

Date Received: 03/13/17 20:06

Lab Sample ID: 280-94790-3

Matrix: Solid

Percent Solids: 83.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0024	J	0.0047	0.00044	mg/Kg	☼	03/12/17 13:55	03/15/17 21:25	1
Ethylbenzene	0.00086	J	0.0047	0.00063	mg/Kg	☼	03/12/17 13:55	03/15/17 21:25	1
Toluene	0.0039	J	0.0047	0.00064	mg/Kg	☼	03/12/17 13:55	03/15/17 21:25	1
m-Xylene & p-Xylene	0.0025		0.0023	0.00097	mg/Kg	☼	03/12/17 13:55	03/15/17 21:25	1
o-Xylene	0.0011	J	0.0023	0.00057	mg/Kg	☼	03/12/17 13:55	03/15/17 21:25	1
Xylenes, Total	0.0036	J	0.0047	0.00057	mg/Kg	☼	03/12/17 13:55	03/15/17 21:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	1/ /		53 - 140	0/ 71271: 1/ 755	0/ 71571: 2175	1
8oluene-d3 (Surr)	104		30 - 129	0/ 71271: 1/ 755	0/ 71571: 2175	1
4-6roB ortuorof enbene (Surr)	105		: 9 - 12:	0/ 71271: 1/ 755	0/ 71571: 2175	1
Dif roB ortuoroB ethane (Surr)	12: z		: 5 - 121	0/ 71271: 1/ 755	0/ 71571: 2175	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Client Sample ID: RC4-HER12-0.25

Date Collected: 03/12/17 12:45

Date Received: 03/13/17 20:06

Lab Sample ID: 280-94790-1

Matrix: Solid

Percent Solids: 80.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0057	0.00018	mg/Kg	☼	03/17/17 11:01	03/17/17 16:25	1
Anthracene	ND		0.0057	0.00082	mg/Kg	☼	03/17/17 11:01	03/17/17 16:25	1
Benzo[a]anthracene	ND		0.0057	0.0010	mg/Kg	☼	03/17/17 11:01	03/17/17 16:25	1
Benzo[a]pyrene	ND		0.0057	0.00084	mg/Kg	☼	03/17/17 11:01	03/17/17 16:25	1
Benzo[b]fluoranthene	ND		0.0057	0.0014	mg/Kg	☼	03/17/17 11:01	03/17/17 16:25	1
Benzo[k]fluoranthene	ND		0.0057	0.0011	mg/Kg	☼	03/17/17 11:01	03/17/17 16:25	1
Chrysene	ND		0.0057	0.0011	mg/Kg	☼	03/17/17 11:01	03/17/17 16:25	1
Dibenz(a,h)anthracene	ND		0.0057	0.0015	mg/Kg	☼	03/17/17 11:01	03/17/17 16:25	1
Fluoranthene	ND		0.0057	0.0011	mg/Kg	☼	03/17/17 11:01	03/17/17 16:25	1
Fluorene	ND		0.0057	0.00054	mg/Kg	☼	03/17/17 11:01	03/17/17 16:25	1
Indeno[1,2,3-cd]pyrene	ND		0.0057	0.0013	mg/Kg	☼	03/17/17 11:01	03/17/17 16:25	1
Naphthalene	0.0066		0.0057	0.00037	mg/Kg	☼	03/17/17 11:01	03/17/17 16:25	1
Pyrene	ND		0.0057	0.0013	mg/Kg	☼	03/17/17 11:01	03/17/17 16:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorof iphenyl	94		/ X - 120	0/ 7: 7: 11 101	0/ 7: 7: 19 125	1
Nitrof enbene-d5	32		42 - 120	0/ 7: 7: 11 101	0/ 7: 7: 19 125	1
8erphenyl-d14	5/		/ 5 - 124	0/ 7: 7: 11 101	0/ 7: 7: 19 125	1

Client Sample ID: RC4-HER13-0.25

Date Collected: 03/12/17 13:15

Date Received: 03/13/17 20:06

Lab Sample ID: 280-94790-2

Matrix: Solid

Percent Solids: 76.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0063	0.00020	mg/Kg	☼	03/17/17 11:01	03/17/17 18:09	1
Anthracene	ND		0.0063	0.00090	mg/Kg	☼	03/17/17 11:01	03/17/17 18:09	1
Benzo[a]anthracene	ND		0.0063	0.0011	mg/Kg	☼	03/17/17 11:01	03/17/17 18:09	1
Benzo[a]pyrene	ND		0.0063	0.00093	mg/Kg	☼	03/17/17 11:01	03/17/17 18:09	1
Benzo[b]fluoranthene	ND		0.0063	0.0015	mg/Kg	☼	03/17/17 11:01	03/17/17 18:09	1
Benzo[k]fluoranthene	ND		0.0063	0.0013	mg/Kg	☼	03/17/17 11:01	03/17/17 18:09	1
Chrysene	0.0018	J B	0.0063	0.0013	mg/Kg	☼	03/17/17 11:01	03/17/17 18:09	1
Dibenz(a,h)anthracene	ND		0.0063	0.0016	mg/Kg	☼	03/17/17 11:01	03/17/17 18:09	1
Fluoranthene	ND		0.0063	0.0013	mg/Kg	☼	03/17/17 11:01	03/17/17 18:09	1
Fluorene	ND		0.0063	0.00059	mg/Kg	☼	03/17/17 11:01	03/17/17 18:09	1
Indeno[1,2,3-cd]pyrene	ND		0.0063	0.0014	mg/Kg	☼	03/17/17 11:01	03/17/17 18:09	1
Naphthalene	0.0032	J	0.0063	0.00041	mg/Kg	☼	03/17/17 11:01	03/17/17 18:09	1
Pyrene	ND		0.0063	0.0014	mg/Kg	☼	03/17/17 11:01	03/17/17 18:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorof iphenyl	9/		/ X - 120	0/ 7: 7: 11 101	0/ 7: 7: 13 10X	1
Nitrof enbene-d5	: 0		42 - 120	0/ 7: 7: 11 101	0/ 7: 7: 13 10X	1
8erphenyl-d14	53		/ 5 - 124	0/ 7: 7: 11 101	0/ 7: 7: 13 10X	1

Client Sample ID: RC4-HER14-0.25

Date Collected: 03/12/17 13:55

Date Received: 03/13/17 20:06

Lab Sample ID: 280-94790-3

Matrix: Solid

Percent Solids: 83.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0066		0.0057	0.00018	mg/Kg	☼	03/17/17 11:01	03/17/17 18:47	1
Anthracene	0.0017	J	0.0057	0.00082	mg/Kg	☼	03/17/17 11:01	03/17/17 18:47	1
Benzo[a]anthracene	0.027	B	0.0057	0.0010	mg/Kg	☼	03/17/17 11:01	03/17/17 18:47	1
Benzo[a]pyrene	0.046	B	0.0057	0.00085	mg/Kg	☼	03/17/17 11:01	03/17/17 18:47	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: RC4-HER14-0.25

Date Collected: 03/12/17 13:55

Date Received: 03/13/17 20:06

Lab Sample ID: 280-94790-3

Matrix: Solid

Percent Solids: 83.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	0.071	B	0.0057	0.0014	mg/Kg	☼	03/17/17 11:01	03/17/17 18:47	1
Benzo[k]fluoranthene	0.026		0.0057	0.0011	mg/Kg	☼	03/17/17 11:01	03/17/17 18:47	1
Chrysene	0.072	B	0.0057	0.0011	mg/Kg	☼	03/17/17 11:01	03/17/17 18:47	1
Dibenz(a,h)anthracene	0.0086		0.0057	0.0015	mg/Kg	☼	03/17/17 11:01	03/17/17 18:47	1
Fluoranthene	0.14	B	0.0057	0.0011	mg/Kg	☼	03/17/17 11:01	03/17/17 18:47	1
Fluorene	0.0050	J	0.0057	0.00054	mg/Kg	☼	03/17/17 11:01	03/17/17 18:47	1
Indeno[1,2,3-cd]pyrene	0.037		0.0057	0.0013	mg/Kg	☼	03/17/17 11:01	03/17/17 18:47	1
Naphthalene	0.0076		0.0057	0.00037	mg/Kg	☼	03/17/17 11:01	03/17/17 18:47	1
Pyrene	0.12	B	0.0057	0.0013	mg/Kg	☼	03/17/17 11:01	03/17/17 18:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorof iphenyl	95		/ X - 120	0/ 7: 7: 11 01	0/ 7: 7: 13 38	1
Nitrof enbene-d5	:		42 - 120	0/ 7: 7: 11 01	0/ 7: 7: 13 38	1
8erphenyl-d14	90		/ 5 - 124	0/ 7: 7: 11 01	0/ 7: 7: 13 38	1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-HER12-0.25

Date Collected: 03/12/17 12:45

Date Received: 03/13/17 20:06

Lab Sample ID: 280-94790-1

Matrix: Solid

Percent Solids: 80.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.3	0.34	mg/Kg	☼	03/12/17 12:45	03/17/17 13:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-8riitruorotoluene	3:		:: - 12/				0/ 7: 7: 12 45	0/ 7: 7: 1/ 11	1

Client Sample ID: RC4-HER13-0.25

Date Collected: 03/12/17 13:15

Date Received: 03/13/17 20:06

Lab Sample ID: 280-94790-2

Matrix: Solid

Percent Solids: 76.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	0.45	J	1.4	0.38	mg/Kg	☼	03/12/17 13:15	03/17/17 13:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a.a.a-8riitruorotoluene	X4		:: - 12/				0/ 7: 7: 1/ 11 5	0/ 7: 7: 1/ 1 9	1

Client Sample ID: RC4-HER14-0.25

Date Collected: 03/12/17 13:55

Date Received: 03/13/17 20:06

Lab Sample ID: 280-94790-3

Matrix: Solid

Percent Solids: 83.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.3	0.36	mg/Kg	☼	03/12/17 13:55	03/17/17 14:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-8riitruorotoluene	35		:: - 12/				0/ 7: 7: 1/ 1 5	0/ 7: 7: 14 02	1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-HER12-0.25

Date Collected: 03/12/17 12:45

Date Received: 03/13/17 20:06

Lab Sample ID: 280-94790-1

Matrix: Solid

Percent Solids: 80.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	3.5	J	4.8	0.82	mg/Kg	☼	03/15/17 10:46	03/17/17 04:24	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -8erphenyl (Surr)	9:		4X- 115				0/ 7157: 1079	0/ 71: 71: 0424	1
Client Sample ID: RC4-HER13-0.25							Lab Sample ID: 280-94790-2		
Date Collected: 03/12/17 13:15							Matrix: Solid		
Date Received: 03/13/17 20:06							Percent Solids: 76.0		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	1.6	J	4.9	0.84	mg/Kg	☼	03/15/17 10:46	03/17/17 04:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -8erphenyl (Surr)	: 0		4X- 115				0/ 7157: 1079	0/ 71: 71: 0452	1
Client Sample ID: RC4-HER14-0.25							Lab Sample ID: 280-94790-3		
Date Collected: 03/12/17 13:55							Matrix: Solid		
Date Received: 03/13/17 20:06							Percent Solids: 83.2		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	6.6		4.8	0.81	mg/Kg	☼	03/15/17 10:46	03/17/17 05:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -8erphenyl (Surr)	: 0		4X- 115				0/ 7157: 1079	0/ 71: 71: 0520	1

Method: 20B - Sodium Adsorption Ratio - Soluble

Client Sample ID: RC4-HER12-0.25

Date Collected: 03/12/17 12:45

Date Received: 03/13/17 20:06

Lab Sample ID: 280-94790-1

Matrix: Solid

Percent Solids: 80.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	39		10	10	mg/Kg		03/14/17 15:56	03/15/17 03:01	10
Ca	87		2.0	2.0	mg/Kg		03/14/17 15:56	03/15/17 03:01	10
Mg	13		2.0	2.0	mg/Kg		03/14/17 15:56	03/15/17 03:01	10
Sodium Adsorption Ratio	ND		1.2	1.2	No Unit		03/14/17 15:56	03/15/17 03:01	10

Client Sample ID: RC4-HER13-0.25

Date Collected: 03/12/17 13:15

Date Received: 03/13/17 20:06

Lab Sample ID: 280-94790-2

Matrix: Solid

Percent Solids: 76.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	12		10	10	mg/Kg		03/14/17 15:56	03/15/17 03:09	10
Ca	89		2.0	2.0	mg/Kg		03/14/17 15:56	03/15/17 03:09	10
Mg	13		2.0	2.0	mg/Kg		03/14/17 15:56	03/15/17 03:09	10
Sodium Adsorption Ratio	ND		1.2	1.2	No Unit		03/14/17 15:56	03/15/17 03:09	10

Client Sample ID: RC4-HER14-0.25

Date Collected: 03/12/17 13:55

Date Received: 03/13/17 20:06

Lab Sample ID: 280-94790-3

Matrix: Solid

Percent Solids: 83.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	29		10	10	mg/Kg		03/14/17 15:56	03/15/17 03:12	10
Ca	66		2.0	2.0	mg/Kg		03/14/17 15:56	03/15/17 03:12	10
Mg	9.7		2.0	2.0	mg/Kg		03/14/17 15:56	03/15/17 03:12	10
Sodium Adsorption Ratio	ND		1.2	1.2	No Unit		03/14/17 15:56	03/15/17 03:12	10

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

Method: 6010C - Metals (ICP)

Client Sample ID: RC4-HER12-0.25

Date Collected: 03/12/17 12:45

Date Received: 03/13/17 20:06

Lab Sample ID: 280-94790-1

Matrix: Solid

Percent Solids: 80.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	100		1.0	0.11	mg/Kg	☼	03/14/17 14:15	03/15/17 04:26	1
Cadmium	0.31	J	0.52	0.042	mg/Kg	☼	03/14/17 14:15	03/15/17 04:26	1
Chromium	13	B	1.6	0.060	mg/Kg	☼	03/14/17 14:15	03/15/17 13:01	1
Lead	14	F2	0.93	0.32	mg/Kg	☼	03/14/17 14:15	03/15/17 13:01	1
Boron	12		10	1.0	mg/Kg	☼	03/14/17 14:15	03/15/17 04:26	1
Selenium	ND	F2	1.6	0.89	mg/Kg	☼	03/14/17 14:15	03/16/17 13:38	1
Silver	ND	* F2	1.0	0.17	mg/Kg	☼	03/14/17 14:15	03/15/17 13:01	1
Calcium	22000	B	52	15	mg/Kg	☼	03/14/17 14:15	03/15/17 13:01	1
Copper	13		2.1	0.22	mg/Kg	☼	03/14/17 14:15	03/15/17 04:26	1
Magnesium	9300	B	21	3.8	mg/Kg	☼	03/14/17 14:15	03/15/17 04:26	1
Nickel	15		4.1	0.14	mg/Kg	☼	03/14/17 14:15	03/15/17 04:26	1
Sodium	180	J F2	520	61	mg/Kg	☼	03/14/17 14:15	03/15/17 13:01	1
Zinc	66		3.1	0.41	mg/Kg	☼	03/14/17 14:15	03/15/17 04:26	1

Client Sample ID: RC4-HER13-0.25

Date Collected: 03/12/17 13:15

Date Received: 03/13/17 20:06

Lab Sample ID: 280-94790-2

Matrix: Solid

Percent Solids: 76.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	110		0.91	0.094	mg/Kg	☼	03/14/17 14:15	03/15/17 04:37	1
Cadmium	0.29	J	0.45	0.037	mg/Kg	☼	03/14/17 14:15	03/15/17 04:37	1
Chromium	11	B	1.4	0.053	mg/Kg	☼	03/14/17 14:15	03/15/17 13:17	1
Lead	13		0.82	0.28	mg/Kg	☼	03/14/17 14:15	03/15/17 13:17	1
Boron	10		9.1	0.89	mg/Kg	☼	03/14/17 14:15	03/15/17 04:37	1
Selenium	ND		1.4	0.78	mg/Kg	☼	03/14/17 14:15	03/16/17 13:50	1
Silver	ND	*	0.91	0.15	mg/Kg	☼	03/14/17 14:15	03/15/17 13:17	1
Calcium	19000	B	45	13	mg/Kg	☼	03/14/17 14:15	03/15/17 13:17	1
Copper	12		1.8	0.20	mg/Kg	☼	03/14/17 14:15	03/15/17 04:37	1
Magnesium	8000	B	18	3.4	mg/Kg	☼	03/14/17 14:15	03/15/17 04:37	1
Nickel	14		3.6	0.12	mg/Kg	☼	03/14/17 14:15	03/15/17 04:37	1
Sodium	130	J	450	54	mg/Kg	☼	03/14/17 14:15	03/15/17 13:17	1
Zinc	60		2.7	0.36	mg/Kg	☼	03/14/17 14:15	03/15/17 04:37	1

Client Sample ID: RC4-HER14-0.25

Date Collected: 03/12/17 13:55

Date Received: 03/13/17 20:06

Lab Sample ID: 280-94790-3

Matrix: Solid

Percent Solids: 83.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	110		0.86	0.090	mg/Kg	☼	03/14/17 14:15	03/15/17 04:40	1
Cadmium	0.25	J	0.43	0.035	mg/Kg	☼	03/14/17 14:15	03/15/17 04:40	1
Chromium	9.3	B	1.3	0.050	mg/Kg	☼	03/14/17 14:15	03/15/17 13:19	1
Lead	12		0.78	0.27	mg/Kg	☼	03/14/17 14:15	03/15/17 13:19	1
Boron	8.4	J	8.6	0.85	mg/Kg	☼	03/14/17 14:15	03/15/17 04:40	1
Selenium	ND		1.3	0.74	mg/Kg	☼	03/14/17 14:15	03/16/17 13:53	1
Silver	ND	*	0.86	0.14	mg/Kg	☼	03/14/17 14:15	03/15/17 13:19	1
Calcium	17000	B	43	12	mg/Kg	☼	03/14/17 14:15	03/15/17 13:19	1
Copper	9.9		1.7	0.19	mg/Kg	☼	03/14/17 14:15	03/15/17 04:40	1
Magnesium	7000	B	17	3.2	mg/Kg	☼	03/14/17 14:15	03/15/17 04:40	1
Nickel	13		3.5	0.11	mg/Kg	☼	03/14/17 14:15	03/15/17 04:40	1
Sodium	130	J	430	51	mg/Kg	☼	03/14/17 14:15	03/15/17 13:19	1
Zinc	57		2.6	0.34	mg/Kg	☼	03/14/17 14:15	03/15/17 04:40	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: RC4-HER12-0.25

Date Collected: 03/12/17 12:45

Date Received: 03/13/17 20:06

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.0	F2	0.68	0.058	mg/Kg	☼	03/14/17 14:15	03/15/17 01:14	1

Lab Sample ID: 280-94790-1

Matrix: Solid

Percent Solids: 80.0

Client Sample ID: RC4-HER13-0.25

Date Collected: 03/12/17 13:15

Date Received: 03/13/17 20:06

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.7		0.61	0.051	mg/Kg	☼	03/14/17 14:15	03/15/17 01:33	1

Lab Sample ID: 280-94790-2

Matrix: Solid

Percent Solids: 76.0

Client Sample ID: RC4-HER14-0.25

Date Collected: 03/12/17 13:55

Date Received: 03/13/17 20:06

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.4		0.64	0.054	mg/Kg	☼	03/14/17 14:15	03/15/17 01:37	1

Lab Sample ID: 280-94790-3

Matrix: Solid

Percent Solids: 83.2

Method: 7471A - Mercury (CVAA)

Client Sample ID: RC4-HER12-0.25

Date Collected: 03/12/17 12:45

Date Received: 03/13/17 20:06

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.025		0.024	0.0078	mg/Kg	☼	03/14/17 12:14	03/14/17 21:26	1

Lab Sample ID: 280-94790-1

Matrix: Solid

Percent Solids: 80.0

Client Sample ID: RC4-HER13-0.25

Date Collected: 03/12/17 13:15

Date Received: 03/13/17 20:06

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.023	J	0.027	0.0087	mg/Kg	☼	03/14/17 12:14	03/14/17 21:29	1

Lab Sample ID: 280-94790-2

Matrix: Solid

Percent Solids: 76.0

Client Sample ID: RC4-HER14-0.25

Date Collected: 03/12/17 13:55

Date Received: 03/13/17 20:06

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018	J	0.021	0.0070	mg/Kg	☼	03/14/17 12:14	03/14/17 21:31	1

Lab Sample ID: 280-94790-3

Matrix: Solid

Percent Solids: 83.2

General Chemistry

Client Sample ID: RC4-HER12-0.25

Date Collected: 03/12/17 12:45

Date Received: 03/13/17 20:06

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	6.7		6.2	2.5	mg/Kg	☼	03/15/17 17:54	03/16/17 16:44	1
Chromium, trivalent	6.3		6.3	2.5	mg/Kg	☼		03/16/17 16:44	1
Percent Moisture	20.0		0.1	0.1	%			03/15/17 10:04	1
Percent Solids	80.0		0.1	0.1	%			03/15/17 10:04	1

Lab Sample ID: 280-94790-1

Matrix: Solid

Percent Solids: 80.0

Client Sample ID: RC4-HER13-0.25

Date Collected: 03/12/17 13:15

Date Received: 03/13/17 20:06

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	6.0	J	6.5	2.6	mg/Kg	☼	03/15/17 17:54	03/16/17 16:44	1
Chromium, trivalent	5.0	J	6.6	2.6	mg/Kg	☼		03/16/17 16:44	1

Lab Sample ID: 280-94790-2

Matrix: Solid

Percent Solids: 76.0

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

General Chemistry (Continued)

Client Sample ID: RC4-HER13-0.25

Date Collected: 03/12/17 13:15

Date Received: 03/13/17 20:06

Lab Sample ID: 280-94790-2

Matrix: Solid

Percent Solids: 76.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24.0		0.1	0.1	%			03/15/17 10:04	1
Percent Solids	76.0		0.1	0.1	%			03/15/17 10:04	1

Client Sample ID: RC4-HER14-0.25

Date Collected: 03/12/17 13:55

Date Received: 03/13/17 20:06

Lab Sample ID: 280-94790-3

Matrix: Solid

Percent Solids: 83.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	6.1		5.9	2.3	mg/Kg	☼	03/15/17 17:54	03/16/17 16:44	1
Chromium, trivalent	3.2	J	6.0	2.4	mg/Kg	☼		03/16/17 16:44	1
Percent Moisture	16.8		0.1	0.1	%			03/15/17 10:04	1
Percent Solids	83.2		0.1	0.1	%			03/15/17 10:04	1

General Chemistry - Soluble

Client Sample ID: RC4-HER12-0.25

Date Collected: 03/12/17 12:45

Date Received: 03/13/17 20:06

Lab Sample ID: 280-94790-1

Matrix: Solid

Percent Solids: 80.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	8.3	HF	0.1	0.1	SU			03/14/17 12:51	1
Temperature	24.3	HF	1.0	1.0	Degrees C			03/14/17 12:51	1
Electrical Conductivity	0.39		0.010	0.010	mmhos/cm		03/17/17 11:34	03/17/17 12:10	1

Client Sample ID: RC4-HER13-0.25

Date Collected: 03/12/17 13:15

Date Received: 03/13/17 20:06

Lab Sample ID: 280-94790-2

Matrix: Solid

Percent Solids: 76.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	8.5	HF	0.1	0.1	SU			03/14/17 12:51	1
Temperature	24.1	HF	1.0	1.0	Degrees C			03/14/17 12:51	1
Electrical Conductivity	0.29		0.010	0.010	mmhos/cm		03/17/17 11:34	03/17/17 12:10	1

Client Sample ID: RC4-HER14-0.25

Date Collected: 03/12/17 13:55

Date Received: 03/13/17 20:06

Lab Sample ID: 280-94790-3

Matrix: Solid

Percent Solids: 83.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	8.6	HF	0.1	0.1	SU			03/14/17 12:51	1
Temperature	24.1	HF	1.0	1.0	Degrees C			03/14/17 12:51	1
Electrical Conductivity	0.23		0.010	0.010	mmhos/cm		03/17/17 11:34	03/17/17 12:10	1

TestAmerica Denver

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94690-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate v eco7ery (Acceptance Limits)			
		12DCF (58-130)	TOL (80-126)	BRB (E6-12E)	DBRM (E5-121)
280-94690-1	RC4-L 5R12-0.2E	12H	9E	99	121
280-94690-2	RC4-L 5R13-0.2E	136	106	108	12HX
280-94690-3	RC4-L 5R14-0.2E	133	104	10E	126 X
MCS 280-3HEH2/2-A	Lab Control Sample	111	92	88	114
7 B 280-3HEH2/1-A	7 ethod Blank	110	94	91	114
Surrogate Legend					
12DC5 = 1,2-Dichloroethane-d4 (Surr)					
TOM= Toluene-d8 (Surr)					
BFB = 4-Bromofluorobenzene (Surr)					
DBF7 = Dibromofluoromethane (Surr)					

Method: 82E0D SIM - Semi7olatile Organic Compounds (GC/MS SIM)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate v eco7ery (Acceptance Limits)		
		RBP (94-120)	NBZ (32-120)	TPH (95-123)
280-94690-1	RC4-L 5R12-0.2E	H4	82	E3
280-94690-2	RC4-L 5R13-0.2E	H3	60	E8
280-94690-3	RC4-L 5R14-0.2E	HE	63	HD
MCS 280-3HE8H8/2-A	Lab Control Sample	66	80	83
7 B 280-3HE8H8/1-A	7 ethod Blank	8E	8E	82
Surrogate Legend				
FBP = 2-Fluorobiphenyl				
NBZ = Nitrobenzene-dE				
TPL = Terphenyl-d14				

Method: 8015C - Nonhalogenated Organics using GC/RID -Modified (Gasoline v ange Organics)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate v eco7ery (Acceptance Limits)			
		TRT1 (EE-129)			
280-94690-1	RC4-L 5R12-0.2E	86			
280-94690-2	RC4-L 5R13-0.2E	94			
280-94690-3	RC4-L 5R14-0.2E	8E			
MCS 280-3HE866/2-A	Lab Control Sample	96			
MCSD 280-3HE866/3-A	Lab Control Sample Dup	9H			
7 B 280-3HE866/1-A	7 ethod Blank	96			
Surrogate Legend					
TFT = a,a,a-Trifluorotoluene					

TestAmerica Denver

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94690-1

Method: 8015C - Nonhalogenated Organics using GC/RID -Modified (Diesel v ange Organics)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate v eco7ery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTPH1 (34-115)
280-94690-1	RC4-L 5R12-0.2E	H6
280-94690-2	RC4-L 5R13-0.2E	60
280-94690-3	RC4-L 5R14-0.2E	60
MCS 280-3HEE34/2-B	Lab Control Sample	66
7 B 280-3HEE34/1-B	7 ethod Blank	81

Surrogate Legend

OTPL = o-Terphenyl (Surr)

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

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

Lab Sample ID: MB 280-365662/4-A

Matrix: Solid

Analysis Batch: 3656F5

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365662

Analyte	MB Result	MB Qualifier	RL	MDL	f nit	D	Prepared	AnalyUed	Dil zac
Benzene	ND		0.0050	0.00047	mg/Kg		03/15/17 15:00	03/15/17 20:02	1
Ethylbenzene	ND		0.0050	0.00067	mg/Kg		03/15/17 15:00	03/15/17 20:02	1
Toluene	ND		0.0050	0.00069	mg/Kg		03/15/17 15:00	03/15/17 20:02	1
m-Xylene & p-Xylene	ND		0.0025	0.0010	mg/Kg		03/15/17 15:00	03/15/17 20:02	1
o-Xylene	ND		0.0025	0.00061	mg/Kg		03/15/17 15:00	03/15/17 20:02	1
Xylenes, Total	ND		0.0050	0.00061	mg/Kg		03/15/17 15:00	03/15/17 20:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		58 - 149	9031531/ 15799	9031531/ 29792	1
Toluene-d8 (Surr)	: 4		89 - 126	9031531/ 15799	9031531/ 29792	1
4-Bromofluorobenzene (Surr)	: 1		/ 6 - 12/	9031531/ 15799	9031531/ 29792	1
Dibromofluoromethane (Surr)	114		/ 5 - 121	9031531/ 15799	9031531/ 29792	1

Lab Sample ID: LCS 280-365662/2-A

Matrix: Solid

Analysis Batch: 3656F5

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365662

Analyte	Spike Added	LCS Result	LCS Qualifier	f nit	D	%Rec	Limits
Benzene	0.0500	0.0591		mg/Kg		118	75 - 135
Ethylbenzene	0.0500	0.0477		mg/Kg		95	73 - 125
Toluene	0.0500	0.0591		mg/Kg		118	77 - 122
m-Xylene & p-Xylene	0.0500	0.0483		mg/Kg		97	77 - 135
o-Xylene	0.0500	0.0489		mg/Kg		98	75 - 135
Xylenes, Total	0.100	0.0972		mg/Kg		97	76 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	111		58 - 149
Toluene-d8 (Surr)	: 2		89 - 126
4-Bromofluorobenzene (Surr)	88		/ 6 - 12/
Dibromofluoromethane (Surr)	114		/ 5 - 121

Method: 82H0D SIM - SemiEolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 280-365868/4-A

Matrix: Solid

Analysis Batch: 365889

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365868

Analyte	MB Result	MB Qualifier	RL	MDL	f nit	D	Prepared	AnalyUed	Dil zac
Acenaphthene	ND		0.0050	0.00016	mg/Kg		03/17/17 11:01	03/17/17 17:43	1
Anthracene	ND		0.0050	0.00072	mg/Kg		03/17/17 11:01	03/17/17 17:43	1
Benzo[a]anthracene	0.00202	J	0.0050	0.00090	mg/Kg		03/17/17 11:01	03/17/17 17:43	1
Benzo[a]pyrene	0.00117	J	0.0050	0.00074	mg/Kg		03/17/17 11:01	03/17/17 17:43	1
Benzo[b]fluoranthene	0.00220	J	0.0050	0.0012	mg/Kg		03/17/17 11:01	03/17/17 17:43	1
Benzo[k]fluoranthene	ND		0.0050	0.0010	mg/Kg		03/17/17 11:01	03/17/17 17:43	1
Chrysene	0.00243	J	0.0050	0.0010	mg/Kg		03/17/17 11:01	03/17/17 17:43	1
Dibenz(a,h)anthracene	ND		0.0050	0.0013	mg/Kg		03/17/17 11:01	03/17/17 17:43	1
Fluoranthene	0.00287	J	0.0050	0.0010	mg/Kg		03/17/17 11:01	03/17/17 17:43	1

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

Method: 82HDD SIM - SemiEolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 280-365868/4-A

Matrix: Solid

Analysis Batch: 365889

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365868

Analyte	MB Result	MB Qualifier	RL	MDL	f nit	D	Prepared	AnalyUed	Dil zac
Fluorene	ND		0.0050	0.00047	mg/Kg		03/17/17 11:01	03/17/17 17:43	1
Indeno[1,2,3-cd]pyrene	ND		0.0050	0.0011	mg/Kg		03/17/17 11:01	03/17/17 17:43	1
Naphthalene	ND		0.0050	0.00033	mg/Kg		03/17/17 11:01	03/17/17 17:43	1
Pyrene	0.00226	J	0.0050	0.0011	mg/Kg		03/17/17 11:01	03/17/17 17:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	85		0: - 129	903/ 3/ 11791	903/ 3/ 1/ 740	1
Nitrobenzene-d5	85		42 - 129	903/ 3/ 11791	903/ 3/ 1/ 740	1
Terphenyl-d14	82		05 - 124	903/ 3/ 11791	903/ 3/ 1/ 740	1

Lab Sample ID: LCS 280-365868/2-A

Matrix: Solid

Analysis Batch: 365889

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365868

Analyte	Spike Added	LCS Result	LCS Qualifier	f nit	D	%Rec	Limits
Acenaphthene	0.0300	0.0279		mg/Kg		93	35 - 120
Anthracene	0.0300	0.0268		mg/Kg		89	43 - 120
Benzo[a]anthracene	0.0300	0.0287		mg/Kg		96	36 - 120
Benzo[a]pyrene	0.0300	0.0252		mg/Kg		84	20 - 120
Benzo[b]fluoranthene	0.0300	0.0262		mg/Kg		87	37 - 120
Benzo[k]fluoranthene	0.0300	0.0256		mg/Kg		85	46 - 120
Chrysene	0.0300	0.0299		mg/Kg		100	34 - 120
Dibenz(a,h)anthracene	0.0300	0.0253		mg/Kg		84	20 - 120
Fluoranthene	0.0300	0.0260		mg/Kg		87	45 - 120
Fluorene	0.0300	0.0278		mg/Kg		93	44 - 120
Indeno[1,2,3-cd]pyrene	0.0300	0.0252		mg/Kg		84	20 - 127
Naphthalene	0.0300	0.0287		mg/Kg		96	44 - 120
Pyrene	0.0300	0.0266		mg/Kg		89	43 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	//		0: - 129
Nitrobenzene-d5	89		42 - 129
Terphenyl-d14	80		05 - 124

Method: 8045C - Nonhalogenated Organics using GC/zID -Modified (Gasoline Range Organics)

Lab Sample ID: MB 280-3658HH/4-A

Matrix: Solid

Analysis Batch: 365893

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3658HH

Analyte	MB Result	MB Qualifier	RL	MDL	f nit	D	Prepared	AnalyUed	Dil zac
GRO (C6-C10)	ND		1.2	0.33	mg/Kg		03/17/17 10:28	03/17/17 11:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	//		// - 120	903/ 3/ 19728	903/ 3/ 11754	1

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QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

Method: 8045C - Nonhalogenated Organics using GC/zID -Modified (Gasoline Range Organics) (Continued)

Lab Sample ID: LCS 280-3658HH/2-A

Matrix: Solid

Analysis Batch: 365893

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3658HH

Analyte	Spike Added	LCS Result	LCS Qualifier	f nit	D	%Rec	Limits
GRO (C6-C10)	5.50	6.62		mg/Kg		120	85 - 153
Surrogate	%Recovery	LCS Qualifier	Limits				
a,a,a-Trifluorotoluene	: /		// - 120				

Lab Sample ID: LCSD 280-3658HH/3-A

Matrix: Solid

Analysis Batch: 365893

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 3658HH

Analyte	Spike Added	LCSD Result	LCSD Qualifier	f nit	D	%Rec	Limits	RPD	Limit
GRO (C6-C10)	5.50	6.50		mg/Kg		118	85 - 153	2	30
Surrogate	%Recovery	LCSD Qualifier	Limits						
a,a,a-Trifluorotoluene	: 6		// - 120						

Method: 8045C - Nonhalogenated Organics using GC/zID -Modified (Diesel Range Organics)

Lab Sample ID: MB 280-36553F/4-B

Matrix: Solid

Analysis Batch: 365H88

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36553F

Analyte	MB Result	MB Qualifier	RL	MDL	f nit	D	Prepared	Analyzed	Dil fac
DRO (C10-C28)	ND		4.0	0.68	mg/Kg		03/15/17 10:46	03/17/17 02:02	1
Surrogate	%Recovery	MB Qualifier	Limits						
o-Terphenyl (Surr)	81		4: - 115						

Lab Sample ID: LCS 280-36553F/2-B

Matrix: Solid

Analysis Batch: 365H88

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36553F

Analyte	Spike Added	LCS Result	LCS Qualifier	f nit	D	%Rec	Limits
DRO (C10-C28)	66.7	61.7		mg/Kg		93	53 - 115
Surrogate	%Recovery	LCS Qualifier	Limits				
o-Terphenyl (Surr)	//		4: - 115				

Method: 20B - Sodium Adsorption Ratio

Lab Sample ID: MB 280-365FFF/4-A

Matrix: Solid

Analysis Batch: 365H0F

Client Sample ID: Method Blank

Prep Type: Soluble

Prep Batch: 365FFF

Analyte	MB Result	MB Qualifier	RL	MDL	f nit	D	Prepared	Analyzed	Dil fac
Na	ND		10	10	mg/Kg		03/14/17 15:56	03/15/17 02:58	10

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QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

Method: 20B - Sodium Adsorption Ratio (Continued)

Lab Sample ID: MB 280-365FFF/4-A

Matrix: Solid

Analysis Batch: 365H0F

Client Sample ID: Method Blank

Prep Type: Soluble

Prep Batch: 365FFF

Analyte	MB Result	MB Qualifier	RL	MDL	f nit	D	Prepared	AnalyUed	Dil zac
Ca	ND		2.0	2.0	mg/Kg		03/14/17 15:56	03/15/17 02:58	10
Mg	ND		2.0	2.0	mg/Kg		03/14/17 15:56	03/15/17 02:58	10
Sodium Adsorption Ratio	ND		1.2	1.2	No Unit		03/14/17 15:56	03/15/17 02:58	10

Lab Sample ID: 280-9FH90-4 Df

Matrix: Solid

Analysis Batch: 365H0F

Client Sample ID: RCF-7 vR42-0.25

Prep Type: Soluble

Prep Batch: 365FFF

Analyte	Sample Result	Sample Qualifier	Df Result	Df Qualifier	f nit	D	RPD	Limit
Na	39		39.1		mg/Kg		0.8	20
Ca	87		84.8		mg/Kg		3	20
Mg	13		11.4		mg/Kg		12	20
Sodium Adsorption Ratio	ND		ND		No Unit		NC	20

Method: 6040C - Metals (ICP)

Lab Sample ID: MB 280-365399/4-A

Matrix: Solid

Analysis Batch: 365533

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365399

Analyte	MB Result	MB Qualifier	RL	MDL	f nit	D	Prepared	AnalyUed	Dil zac
Barium	ND		1.0	0.10	mg/Kg		03/14/17 14:15	03/15/17 04:21	1
Cadmium	ND		0.50	0.041	mg/Kg		03/14/17 14:15	03/15/17 04:21	1
Boron	ND		10	0.98	mg/Kg		03/14/17 14:15	03/15/17 04:21	1
Copper	ND		2.0	0.22	mg/Kg		03/14/17 14:15	03/15/17 04:21	1
Magnesium	9.43	J	20	3.7	mg/Kg		03/14/17 14:15	03/15/17 04:21	1
Nickel	ND		4.0	0.13	mg/Kg		03/14/17 14:15	03/15/17 04:21	1
Zinc	ND		3.0	0.40	mg/Kg		03/14/17 14:15	03/15/17 04:21	1

Lab Sample ID: MB 280-365399/4-A

Matrix: Solid

Analysis Batch: 365H00

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365399

Analyte	MB Result	MB Qualifier	RL	MDL	f nit	D	Prepared	AnalyUed	Dil zac
Chromium	0.103	J	1.5	0.058	mg/Kg		03/14/17 14:15	03/15/17 12:56	1
Lead	ND		0.90	0.31	mg/Kg		03/14/17 14:15	03/15/17 12:56	1
Silver	ND		1.0	0.16	mg/Kg		03/14/17 14:15	03/15/17 12:56	1
Calcium	26.8	J	50	14	mg/Kg		03/14/17 14:15	03/15/17 12:56	1
Sodium	ND		500	59	mg/Kg		03/14/17 14:15	03/15/17 12:56	1

Lab Sample ID: MB 280-365399/4-A

Matrix: Solid

Analysis Batch: 3658F6

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365399

Analyte	MB Result	MB Qualifier	RL	MDL	f nit	D	Prepared	AnalyUed	Dil zac
Selenium	ND		1.5	0.86	mg/Kg		03/14/17 14:15	03/16/17 13:33	1

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

Method: 6040C - Metals (ICP) (Continued)

Lab Sample ID: LCS 280-365399/2-A

Matrix: Solid

Analysis Batch: 365533

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365399

Analyte	Spike Added	LCS Result	LCS Qualifier	f nit	D	%Rec	Limits
Barium	200	187		mg/Kg		93	87 - 112
Cadmium	10.0	10.6		mg/Kg		106	87 - 110
Boron	100	104		mg/Kg		104	80 - 120
Copper	25.0	25.9		mg/Kg		103	88 - 110
Nickel	50.0	50.4		mg/Kg		101	87 - 110
Zinc	50.0	51.8		mg/Kg		104	76 - 114

Lab Sample ID: LCS 280-365399/2-A

Matrix: Solid

Analysis Batch: 365H00

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365399

Analyte	Spike Added	LCS Result	LCS Qualifier	f nit	D	%Rec	Limits
Chromium	20.0	18.3		mg/Kg		92	84 - 114
Lead	50.0	49.6		mg/Kg		99	86 - 110
Silver	5.00	5.86	*	mg/Kg		117	87 - 114

Lab Sample ID: LCS 280-365399/2-A

Matrix: Solid

Analysis Batch: 3658F6

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365399

Analyte	Spike Added	LCS Result	LCS Qualifier	f nit	D	%Rec	Limits
Selenium	200	191		mg/Kg		96	83 - 110

Lab Sample ID: 280-9FH00-4 MS

Matrix: Solid

Analysis Batch: 365533

Client Sample ID: RCF-7 vR42-0.25

Prep Type: Total/NA

Prep Batch: 365399

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	f nit	D	%Rec	Limits
Barium	100		183	276		mg/Kg	✱	94	52 - 159
Cadmium	0.31	J	9.13	8.24		mg/Kg	✱	87	40 - 130
Boron	12		91.3	98.2		mg/Kg	✱	94	80 - 120
Copper	13		22.8	33.8		mg/Kg	✱	92	37 - 187
Nickel	15		45.7	50.9		mg/Kg	✱	79	61 - 126
Zinc	66		45.7	107		mg/Kg	✱	90	70 - 200

Lab Sample ID: 280-9FH00-4 MS

Matrix: Solid

Analysis Batch: 365H00

Client Sample ID: RCF-7 vR42-0.25

Prep Type: Total/NA

Prep Batch: 365399

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	f nit	D	%Rec	Limits
Chromium	13	B	18.3	37.9		mg/Kg	✱	136	70 - 200
Lead	14	F2	45.7	50.3		mg/Kg	✱	79	70 - 200
Silver	ND	* F2	4.57	4.78		mg/Kg	✱	105	75 - 141

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

Method: 6040C - Metals (ICP) (Continued)

Lab Sample ID: 280-9FH90-4 MS

Matrix: Solid

Analysis Batch: 3658F6

Client Sample ID: RCF-7 vR42-0.25

Prep Type: Total/NA

Prep Batch: 365399

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	f nit	D	%Rec	Limits
Selenium	ND	F2	183	150		mg/Kg	☼	82	76 - 104

Lab Sample ID: 280-9FH90-4 MSD

Matrix: Solid

Analysis Batch: 365533

Client Sample ID: RCF-7 vR42-0.25

Prep Type: Total/NA

Prep Batch: 365399

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	f nit	D	%Rec	Limits	RPD	Limit
Barium	100		227	302		mg/Kg	☼	87	52 - 159	9	20
Cadmium	0.31	J	11.4	9.72		mg/Kg	☼	83	40 - 130	17	20
Boron	12		114	113		mg/Kg	☼	88	80 - 120	14	20
Copper	13		28.4	36.5		mg/Kg	☼	84	37 - 187	8	20
Nickel	15		56.8	57.6		mg/Kg	☼	75	61 - 126	12	20
Zinc	66		56.8	112		mg/Kg	☼	80	70 - 200	4	20

Lab Sample ID: 280-9FH90-4 MSD

Matrix: Solid

Analysis Batch: 365H00

Client Sample ID: RCF-7 vR42-0.25

Prep Type: Total/NA

Prep Batch: 365399

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	f nit	D	%Rec	Limits	RPD	Limit
Chromium	13	B	22.7	44.0		mg/Kg	☼	136	70 - 200	15	20
Lead	14	F2	56.8	62.0	F2	mg/Kg	☼	84	70 - 200	21	20
Silver	ND	* F2	5.68	6.06	F2	mg/Kg	☼	107	75 - 141	24	20

Lab Sample ID: 280-9FH90-4 MSD

Matrix: Solid

Analysis Batch: 3658F6

Client Sample ID: RCF-7 vR42-0.25

Prep Type: Total/NA

Prep Batch: 365399

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	f nit	D	%Rec	Limits	RPD	Limit
Selenium	ND	F2	227	191	F2	mg/Kg	☼	84	76 - 104	24	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 280-365398/4-A

Matrix: Solid

Analysis Batch: 365548

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365398

Analyte	MB Result	MB Qualifier	RL	MDL	f nit	D	Prepared	AnalyUed	Dil zac
Arsenic	ND		0.60	0.051	mg/Kg		03/14/17 14:15	03/15/17 01:06	1

Lab Sample ID: LCS 280-365398/2-A

Matrix: Solid

Analysis Batch: 365548

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365398

Analyte	Spike Added	LCS Result	LCS Qualifier	f nit	D	%Rec	Limits
Arsenic	20.0	17.4		mg/Kg		87	83 - 111

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-9FH90-4 MS

Matrix: Solid

Analysis Batch: 365548

Client Sample ID: RCF-7 vR42-0.25

Prep Type: Total/NA

Prep Batch: 365398

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	f nit	D	%Rec	Limits
Arsenic	7.0	F2	17.1	21.4		mg/Kg	✖	85	83 - 111

Lab Sample ID: 280-9FH90-4 MSD

Matrix: Solid

Analysis Batch: 365548

Client Sample ID: RCF-7 vR42-0.25

Prep Type: Total/NA

Prep Batch: 365398

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	f nit	D	%Rec	Limits	RPD	Limit
Arsenic	7.0	F2	23.1	26.8	F2	mg/Kg	✖	86	83 - 111	22	20

Method: HF4A - Mercury (CVAA)

Lab Sample ID: MB 280-365338/4-A

Matrix: Solid

Analysis Batch: 365508

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365338

Analyte	MB Result	MB Qualifier	RL	MDL	f nit	D	Prepared	AnalyUed	Dil	zac
Mercury	ND		0.017	0.0055	mg/Kg		03/14/17 12:14	03/14/17 20:52		1

Lab Sample ID: LCS 280-365338/2-A

Matrix: Solid

Analysis Batch: 365508

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365338

Analyte	Spike Added	LCS Result	LCS Qualifier	f nit	D	%Rec	Limits
Mercury	0.417	0.363		mg/Kg		87	87 - 111

Method: H496A - Chromium, 7 exaEalent

Lab Sample ID: MB F90-F4FH6/4-A

Matrix: Solid

Analysis Batch: F450H3

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: F4FH6

Analyte	MB Result	MB Qualifier	RL	MDL	f nit	D	Prepared	AnalyUed	Dil	zac
Chromium, hex	ND		5.0	2.0	mg/Kg		03/15/17 17:54	03/16/17 16:44		1

Lab Sample ID: LCS F90-F4FH6/3-A

Matrix: Solid

Analysis Batch: F450H3

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: F4FH6

Analyte	Spike Added	LCS Result	LCS Qualifier	f nit	D	%Rec	Limits
Chromium, hex	63.3	57.5		mg/Kg		91	80 - 120

Lab Sample ID: LCSS F90-F4FH6/2-A

Matrix: Solid

Analysis Batch: F450H3

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: F4FH6

Analyte	Spike Added	LCSS Result	LCSS Qualifier	f nit	D	%Rec	Limits
Chromium, hex	39.7	33.0		mg/Kg		83	80 - 120

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

Method: H496A - Chromium, 7 exaEalent (Continued)

Lab Sample ID: 280-9FH90-4 Df

Matrix: Solid

Analysis Batch: F450H3

Client Sample ID: RCF-7 vR42-0.25

Prep Type: Total/NA

Prep Batch: F4FH16

Analyte	Sample Result	Sample Qualifier	Df Result	Df Qualifier	f nit	D	RPD	Limit
Chromium, hex	6.7		6.13		mg/Kg	✱	9	20

Method: 90F5D - p7

Lab Sample ID: LCS 280-36539HF

Matrix: Solid

Analysis Batch: 36539H

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	f nit	D	%Rec	Limits
pH adj. to 25 deg C	7.00	7.0		SU		100	97 - 103

Lab Sample ID: 280-9FH90-4 Df

Matrix: Solid

Analysis Batch: 36539H

Client Sample ID: RCF-7 vR42-0.25

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Df Result	Df Qualifier	f nit	D	RPD	Limit
pH adj. to 25 deg C	8.3	HF	8.3		SU		0.1	5
Temperature	24.3	HF	24.3		Degrees C		0	5

Method: 9050A - Specific Conductance

Lab Sample ID: 280-9FH90-4 Df

Matrix: Solid

Analysis Batch: F45302

Client Sample ID: RCF-7 vR42-0.25

Prep Type: Soluble

Prep Batch: F4F656

Analyte	Sample Result	Sample Qualifier	Df Result	Df Qualifier	f nit	D	RPD	Limit
Electrical Conductivity	0.39		0.395		mmhos/cm		0.8	10

Method: Moisture - Percent Moisture

Lab Sample ID: 280-9FH90-4 Df

Matrix: Solid

Analysis Batch: 365559

Client Sample ID: RCF-7 vR42-0.25

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Df Result	Df Qualifier	f nit	D	RPD	Limit
Percent Moisture	20.0		20.1		%		0.4	20
Percent Solids	80.0		79.9		%		0.1	20

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94690-1

GC/MS VOA

Analysis Batch: 365645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Total/NA	Solid	82B03	5BHBB2
280-94690-2	RC4-ELR15-0.2H	Total/NA	Solid	82B03	5BHBB2
280-94690-5	RC4-ELR14-0.2H	Total/NA	Solid	82B03	5BHBB2
M3 280-5BHBB2/1-A	Method 3lank	Total/NA	Solid	82B03	5BHBB2
7CS 280-5BHBB2/2-A	7ab Control Sample	Total/NA	Solid	82B03	5BHBB2

Prep Batch: 365662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Total/NA	Solid	H05H	
280-94690-2	RC4-ELR15-0.2H	Total/NA	Solid	H05H	
280-94690-5	RC4-ELR14-0.2H	Total/NA	Solid	H05H	
M3 280-5BHBB2/1-A	Method 3lank	Total/NA	Solid	H05H	
7CS 280-5BHBB2/2-A	7ab Control Sample	Total/NA	Solid	H05H	

GC/MS Semi VOA

Prep Batch: 365868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Total/NA	Solid	5H4B	
280-94690-2	RC4-ELR15-0.2H	Total/NA	Solid	5H4B	
280-94690-5	RC4-ELR14-0.2H	Total/NA	Solid	5H4B	
M3 280-5BHBB8/1-A	Method 3lank	Total/NA	Solid	5H4B	
7CS 280-5BHBB8/2-A	7ab Control Sample	Total/NA	Solid	5H4B	

Analysis Batch: 365889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Total/NA	Solid	8260D SIM	5BHBB8
280-94690-2	RC4-ELR15-0.2H	Total/NA	Solid	8260D SIM	5BHBB8
280-94690-5	RC4-ELR14-0.2H	Total/NA	Solid	8260D SIM	5BHBB8
M3 280-5BHBB8/1-A	Method 3lank	Total/NA	Solid	8260D SIM	5BHBB8
7CS 280-5BHBB8/2-A	7ab Control Sample	Total/NA	Solid	8260D SIM	5BHBB8

GC VOA

Prep Batch: 365877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Total/NA	Solid	H05H	
280-94690-2	RC4-ELR15-0.2H	Total/NA	Solid	H05H	
280-94690-5	RC4-ELR14-0.2H	Total/NA	Solid	H05H	
M3 280-5BHBB6/1-A	Method 3lank	Total/NA	Solid	H05H	
7CS 280-5BHBB6/2-A	7ab Control Sample	Total/NA	Solid	H05H	
7CSD 280-5BHBB6/5-A	7ab Control Sample Dup	Total/NA	Solid	H05H	

Analysis Batch: 365893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Total/NA	Solid	801HC	5BHBB6
280-94690-2	RC4-ELR15-0.2H	Total/NA	Solid	801HC	5BHBB6
280-94690-5	RC4-ELR14-0.2H	Total/NA	Solid	801HC	5BHBB6
M3 280-5BHBB6/1-A	Method 3lank	Total/NA	Solid	801HC	5BHBB6
7CS 280-5BHBB6/2-A	7ab Control Sample	Total/NA	Solid	801HC	5BHBB6

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94690-1

GC VOA (Continued)

Analysis Batch: 365893 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
7CSD 280-5BH866/5-A	7ab Control Sample Dup	Total/NA	Solid	801HC	5BH866

GC Semi VOA

Prep Batch: 365534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Total/NA	Solid	5H4B	
280-94690-2	RC4-ELR15-0.2H	Total/NA	Solid	5H4B	
280-94690-5	RC4-ELR14-0.2H	Total/NA	Solid	5H4B	
M3 280-5BH54/1-3	Method 3lank	Total/NA	Solid	5H4B	
7CS 280-5BH54/2-3	7ab Control Sample	Total/NA	Solid	5H4B	

Cleanup Batch: 365740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Total/NA	Solid	5B50M	5BH54
280-94690-2	RC4-ELR15-0.2H	Total/NA	Solid	5B50M	5BH54
280-94690-5	RC4-ELR14-0.2H	Total/NA	Solid	5B50M	5BH54
M3 280-5BH54/1-3	Method 3lank	Total/NA	Solid	5B50M	5BH54
7CS 280-5BH54/2-3	7ab Control Sample	Total/NA	Solid	5B50M	5BH54

Analysis Batch: 365788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Total/NA	Solid	801HC	5BH640
280-94690-2	RC4-ELR15-0.2H	Total/NA	Solid	801HC	5BH640
280-94690-5	RC4-ELR14-0.2H	Total/NA	Solid	801HC	5BH640
M3 280-5BH54/1-3	Method 3lank	Total/NA	Solid	801HC	5BH640
7CS 280-5BH54/2-3	7ab Control Sample	Total/NA	Solid	801HC	5BH640

Metals

Prep Batch: 365338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Total/NA	Solid	6461A	
280-94690-2	RC4-ELR15-0.2H	Total/NA	Solid	6461A	
280-94690-5	RC4-ELR14-0.2H	Total/NA	Solid	6461A	
M3 280-5BH558/1-A	Method 3lank	Total/NA	Solid	6461A	
7CS 280-5BH558/2-A	7ab Control Sample	Total/NA	Solid	6461A	

Prep Batch: 365398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Total/NA	Solid	50H03	
280-94690-2	RC4-ELR15-0.2H	Total/NA	Solid	50H03	
280-94690-5	RC4-ELR14-0.2H	Total/NA	Solid	50H03	
M3 280-5BH598/1-A	Method 3lank	Total/NA	Solid	50H03	
7CS 280-5BH598/2-A	7ab Control Sample	Total/NA	Solid	50H03	
280-94690-1 MS	RC4-ELR12-0.2H	Total/NA	Solid	50H03	
280-94690-1 MSD	RC4-ELR12-0.2H	Total/NA	Solid	50H03	

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94690-1

Metals (Continued)

Prep Batch: 365399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Total/NA	Solid	50H03	
280-94690-2	RC4-ELR15-0.2H	Total/NA	Solid	50H03	
280-94690-5	RC4-ELR14-0.2H	Total/NA	Solid	50H03	
M3 280-5BH599/1-A	Method 3lank	Total/NA	Solid	50H03	
7CS 280-5BH599/2-A	7ab Control Sample	Total/NA	Solid	50H03	
280-94690-1 MS	RC4-ELR12-0.2H	Total/NA	Solid	50H03	
280-94690-1 MSD	RC4-ELR12-0.2H	Total/NA	Solid	50H03	

Prep Batch: 365444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Soluble	Solid	203	
280-94690-2	RC4-ELR15-0.2H	Soluble	Solid	203	
280-94690-5	RC4-ELR14-0.2H	Soluble	Solid	203	
M3 280-5BH444/1-A	Method 3lank	Soluble	Solid	203	
280-94690-1 DU	RC4-ELR12-0.2H	Soluble	Solid	203	

Analysis Batch: 365508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Total/NA	Solid	6461A	5BH558
280-94690-2	RC4-ELR15-0.2H	Total/NA	Solid	6461A	5BH558
280-94690-5	RC4-ELR14-0.2H	Total/NA	Solid	6461A	5BH558
M3 280-5BH558/1-A	Method 3lank	Total/NA	Solid	6461A	5BH558
7CS 280-5BH558/2-A	7ab Control Sample	Total/NA	Solid	6461A	5BH558

Analysis Batch: 365518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Total/NA	Solid	B020A	5BH598
280-94690-2	RC4-ELR15-0.2H	Total/NA	Solid	B020A	5BH598
280-94690-5	RC4-ELR14-0.2H	Total/NA	Solid	B020A	5BH598
M3 280-5BH598/1-A	Method 3lank	Total/NA	Solid	B020A	5BH598
7CS 280-5BH598/2-A	7ab Control Sample	Total/NA	Solid	B020A	5BH598
280-94690-1 MS	RC4-ELR12-0.2H	Total/NA	Solid	B020A	5BH598
280-94690-1 MSD	RC4-ELR12-0.2H	Total/NA	Solid	B020A	5BH598

Analysis Batch: 365533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Total/NA	Solid	B010C	5BH599
280-94690-2	RC4-ELR15-0.2H	Total/NA	Solid	B010C	5BH599
280-94690-5	RC4-ELR14-0.2H	Total/NA	Solid	B010C	5BH599
M3 280-5BH599/1-A	Method 3lank	Total/NA	Solid	B010C	5BH599
7CS 280-5BH599/2-A	7ab Control Sample	Total/NA	Solid	B010C	5BH599
280-94690-1 MS	RC4-ELR12-0.2H	Total/NA	Solid	B010C	5BH599
280-94690-1 MSD	RC4-ELR12-0.2H	Total/NA	Solid	B010C	5BH599

Analysis Batch: 365700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Total/NA	Solid	B010C	5BH599
280-94690-2	RC4-ELR15-0.2H	Total/NA	Solid	B010C	5BH599
280-94690-5	RC4-ELR14-0.2H	Total/NA	Solid	B010C	5BH599
M3 280-5BH599/1-A	Method 3lank	Total/NA	Solid	B010C	5BH599
7CS 280-5BH599/2-A	7ab Control Sample	Total/NA	Solid	B010C	5BH599

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94690-1

Metals (Continued)

Analysis Batch: 365700 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1 MS	RC4-ELR12-0.2H	Total/NA	Solid	B010C	5BH599
280-94690-1 MSD	RC4-ELR12-0.2H	Total/NA	Solid	B010C	5BH599

Analysis Batch: 365704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Soluble	Solid	203	5BH444
280-94690-2	RC4-ELR15-0.2H	Soluble	Solid	203	5BH444
280-94690-5	RC4-ELR14-0.2H	Soluble	Solid	203	5BH444
M3 280-5BH444/1-A	Method 3lank	Soluble	Solid	203	5BH444
280-94690-1 DU	RC4-ELR12-0.2H	Soluble	Solid	203	5BH444

Analysis Batch: 365846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Total/NA	Solid	B010C	5BH599
280-94690-2	RC4-ELR15-0.2H	Total/NA	Solid	B010C	5BH599
280-94690-5	RC4-ELR14-0.2H	Total/NA	Solid	B010C	5BH599
M3 280-5BH599/1-A	Method 3lank	Total/NA	Solid	B010C	5BH599
7CS 280-5BH599/2-A	7ab Control Sample	Total/NA	Solid	B010C	5BH599
280-94690-1 MS	RC4-ELR12-0.2H	Total/NA	Solid	B010C	5BH599
280-94690-1 MSD	RC4-ELR12-0.2H	Total/NA	Solid	B010C	5BH599

General Chemistry

Leach Batch: 365384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Soluble	Solid	DI 7each	
280-94690-2	RC4-ELR15-0.2H	Soluble	Solid	DI 7each	
280-94690-5	RC4-ELR14-0.2H	Soluble	Solid	DI 7each	
280-94690-1 DU	RC4-ELR12-0.2H	Soluble	Solid	DI 7each	

Analysis Batch: 365397

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Soluble	Solid	904HD	5BH584
280-94690-2	RC4-ELR15-0.2H	Soluble	Solid	904HD	5BH584
280-94690-5	RC4-ELR14-0.2H	Soluble	Solid	904HD	5BH584
7CS 280-5BH596/4	7ab Control Sample	Total/NA	Solid	904HD	
280-94690-1 DU	RC4-ELR12-0.2H	Soluble	Solid	904HD	5BH584

Analysis Batch: 365559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Total/NA	Solid	Moisture	
280-94690-2	RC4-ELR15-0.2H	Total/NA	Solid	Moisture	
280-94690-5	RC4-ELR14-0.2H	Total/NA	Solid	Moisture	
280-94690-1 DU	RC4-ELR12-0.2H	Total/NA	Solid	Moisture	

Prep Batch: 414656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Soluble	Solid	Sat Paste Lxt	
280-94690-2	RC4-ELR15-0.2H	Soluble	Solid	Sat Paste Lxt	
280-94690-5	RC4-ELR14-0.2H	Soluble	Solid	Sat Paste Lxt	

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94690-1

General Chemistry (Continued)

Prep Batch: 414656 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1 DU	RC4-ELR12-0.2H	Soluble	Solid	Sat Paste Lxt	

Prep Batch: 414776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Total/NA	Solid	50B0A	
280-94690-2	RC4-ELR15-0.2H	Total/NA	Solid	50B0A	
280-94690-5	RC4-ELR14-0.2H	Total/NA	Solid	50B0A	
M3 490-41466B/1-A	Method 3lank	Total/NA	Solid	50B0A	
7CSI 490-41466B/5-A	7ab Control Sample	Total/NA	Solid	50B0A	
7CSS 490-41466B/2-A	7ab Control Sample	Total/NA	Solid	50B0A	
280-94690-1 DU	RC4-ELR12-0.2H	Total/NA	Solid	50B0A	

Analysis Batch: 415073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Total/NA	Solid	619BA	41466B
280-94690-2	RC4-ELR15-0.2H	Total/NA	Solid	619BA	41466B
280-94690-5	RC4-ELR14-0.2H	Total/NA	Solid	619BA	41466B
M3 490-41466B/1-A	Method 3lank	Total/NA	Solid	619BA	41466B
7CSI 490-41466B/5-A	7ab Control Sample	Total/NA	Solid	619BA	41466B
7CSS 490-41466B/2-A	7ab Control Sample	Total/NA	Solid	619BA	41466B
280-94690-1 DU	RC4-ELR12-0.2H	Total/NA	Solid	619BA	41466B

Analysis Batch: 415189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Total/NA	Solid	619BA	
280-94690-2	RC4-ELR15-0.2H	Total/NA	Solid	619BA	
280-94690-5	RC4-ELR14-0.2H	Total/NA	Solid	619BA	

Analysis Batch: 415302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94690-1	RC4-ELR12-0.2H	Soluble	Solid	90HDA	414BH-B
280-94690-2	RC4-ELR15-0.2H	Soluble	Solid	90HDA	414BH-B
280-94690-5	RC4-ELR14-0.2H	Soluble	Solid	90HDA	414BH-B
7CS 490-41H502/5	7ab Control Sample	Total/NA	Solid	90HDA	
7CSD 490-41H502/4	7ab Control Sample Dup	Total/NA	Solid	90HDA	
280-94690-1 DU	RC4-ELR12-0.2H	Soluble	Solid	90HDA	414BH-B

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

Client Sample ID: RC4-HER02-. 528

Lab Sample ID: 29. -6416. -0

Date Collected: . 3/02/01 02:48

Matrix: Solid

Date Received: . 3/03/01 2. :. v

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	20B			100.893 g	50 mL	365444	03/14/17 15:56	SEJ	TAL DEN
Soluble	Analysis	20B		10			365704	03/15/17 03:01	CML	TAL DEN
Soluble	Leach	DI Leach			40.35 g	40 mL	365384	03/14/17 09:56	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	365397	03/14/17 12:51	IEU	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	414656	03/17/17 11:34	BAA	TAL NSH
Soluble	Analysis	9050A		1			415302	03/17/17 12:10	RN	TAL NSH
Total/NA	Analysis	Moisture		1			365559	03/15/17 10:04	A1D	TAL DEN

Client Sample ID: RC4-HER02-. 528

Lab Sample ID: 29. -6416. -0

Date Collected: . 3/02/01 02:48

Matrix: Solid

Date Received: . 3/03/01 2. :. v

Percent Solids: 9. 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			5.948 g	5 mL	365662	03/12/17 12:45	ADD	TAL DEN
Total/NA	Analysis	8260B		1	5 g	5 mL	365645	03/16/17 05:36	ADD	TAL DEN
Total/NA	Prep	3546			32.9 g	1 mL	365868	03/17/17 11:01	DFB1	TAL DEN
Total/NA	Analysis	8270D SIM		1			365889	03/17/17 16:25	MKW	TAL DEN
Total/NA	Prep	5035			5.911 g	5 mL	365877	03/12/17 12:45	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	365893	03/17/17 13:11	DAW	TAL DEN
Total/NA	Prep	3546			31.0 g	1 mL	365534	03/15/17 10:46	JRA	TAL DEN
Total/NA	Cleanup	3630M			1 mL	1 mL	365740	03/16/17 12:38	CDC	TAL DEN
Total/NA	Analysis	8015C		1			365788	03/17/17 04:24	KDK	TAL DEN
Total/NA	Prep	3050B			1.208 g	100 mL	365399	03/14/17 14:15	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365533	03/15/17 04:26	CDH	TAL DEN
Total/NA	Prep	3050B			1.208 g	100 mL	365399	03/14/17 14:15	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365700	03/15/17 13:01	SJS	TAL DEN
Total/NA	Prep	3050B			1.208 g	100 mL	365399	03/14/17 14:15	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365846	03/16/17 13:38	SJS	TAL DEN
Total/NA	Prep	3050B			1.097 g	100 mL	365398	03/14/17 14:15	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			365518	03/15/17 01:14	LMT	TAL DEN
Total/NA	Prep	7471A			0.53 g	50 mL	365338	03/14/17 12:14	TEB	TAL DEN
Total/NA	Analysis	7471A		1			365508	03/14/17 21:26	TEB	TAL DEN
Total/NA	Prep	3060A			2.5123 g	500 mL	414776	03/15/17 17:54	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	415073	03/16/17 16:44	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	415189	03/16/17 16:44	BMC	TAL NSH

Client Sample ID: RC4-HER03-. 528

Lab Sample ID: 29. -6416. -2

Date Collected: . 3/02/01 03:08

Matrix: Solid

Date Received: . 3/03/01 2. :. v

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	20B			101.005 g	50 mL	365444	03/14/17 15:56	SEJ	TAL DEN
Soluble	Analysis	20B		10			365704	03/15/17 03:09	CML	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

Client Sample ID: RC4-HER03-. 528

Lab Sample ID: 29. -6416. -2

Date Collected: . 3/02/01 03:08

Matrix: Solid

Date Received: . 3/03/01 2. :. v

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			40.23 g	40 mL	365384	03/14/17 09:56	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	365397	03/14/17 12:51	IEU	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	414656	03/17/17 11:34	BAA	TAL NSH
Soluble	Analysis	9050A		1			415302	03/17/17 12:10	RN	TAL NSH
Total/NA	Analysis	Moisture		1			365559	03/15/17 10:04	A1D	TAL DEN

Client Sample ID: RC4-HER03-. 528

Lab Sample ID: 29. -6416. -2

Date Collected: . 3/02/01 03:08

Matrix: Solid

Date Received: . 3/03/01 2. :. v

Percent Solids: 1v5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.568 g	5 mL	365662	03/12/17 13:15	ADD	TAL DEN
Total/NA	Analysis	8260B		1	5 g	5 mL	365645	03/15/17 21:04	ADD	TAL DEN
Total/NA	Prep	3546			31.4 g	1 mL	365868	03/17/17 11:01	DFB1	TAL DEN
Total/NA	Analysis	8270D SIM		1			365889	03/17/17 18:09	MKW	TAL DEN
Total/NA	Prep	5035			5.619 g	5 mL	365877	03/12/17 13:15	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	365893	03/17/17 13:36	DAW	TAL DEN
Total/NA	Prep	3546			31.9 g	1 mL	365534	03/15/17 10:46	JRA	TAL DEN
Total/NA	Cleanup	3630M			1 mL	1 mL	365740	03/16/17 12:38	CDC	TAL DEN
Total/NA	Analysis	8015C		1			365788	03/17/17 04:52	KDK	TAL DEN
Total/NA	Prep	3050B			1.449 g	100 mL	365399	03/14/17 14:15	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365533	03/15/17 04:37	CDH	TAL DEN
Total/NA	Prep	3050B			1.449 g	100 mL	365399	03/14/17 14:15	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365700	03/15/17 13:17	SJS	TAL DEN
Total/NA	Prep	3050B			1.449 g	100 mL	365399	03/14/17 14:15	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365846	03/16/17 13:50	SJS	TAL DEN
Total/NA	Prep	3050B			1.295 g	100 mL	365398	03/14/17 14:15	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			365518	03/15/17 01:33	LMT	TAL DEN
Total/NA	Prep	7471A			0.50 g	50 mL	365338	03/14/17 12:14	TEB	TAL DEN
Total/NA	Analysis	7471A		1			365508	03/14/17 21:29	TEB	TAL DEN
Total/NA	Prep	3060A			2.5252 g	500 mL	414776	03/15/17 17:54	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	415073	03/16/17 16:44	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	415189	03/16/17 16:44	BMC	TAL NSH

Client Sample ID: RC4-HER04-. 528

Lab Sample ID: 29. -6416. -3

Date Collected: . 3/02/01 03:88

Matrix: Solid

Date Received: . 3/03/01 2. :. v

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	20B			102.973 g	50 mL	365444	03/14/17 15:56	SEJ	TAL DEN
Soluble	Analysis	20B		10			365704	03/15/17 03:12	CML	TAL DEN
Soluble	Leach	DI Leach			40.16 g	40 mL	365384	03/14/17 09:56	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	365397	03/14/17 12:51	IEU	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-1

Client Sample ID: RC4-HER04-. 528

Lab Sample ID: 29. -6416. -3

Date Collected: . 3/02/01 03:88

Matrix: Solid

Date Received: . 3/03/01 2. :. v

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	Sat Paste Ext			1 g	1 mL	414656	03/17/17 11:34	BAA	TAL NSH
Soluble	Analysis	9050A		1			415302	03/17/17 12:10	RN	TAL NSH
Total/NA	Analysis	Moisture		1			365559	03/15/17 10:04	A1D	TAL DEN

Client Sample ID: RC4-HER04-. 528

Lab Sample ID: 29. -6416. -3

Date Collected: . 3/02/01 03:88

Matrix: Solid

Date Received: . 3/03/01 2. :. v

Percent Solids: 9352

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.43 g	5 mL	365662	03/12/17 13:55	ADD	TAL DEN
Total/NA	Analysis	8260B		1	5 g	5 mL	365645	03/15/17 21:25	ADD	TAL DEN
Total/NA	Prep	3546			31.5 g	1 mL	365868	03/17/17 11:01	DFB1	TAL DEN
Total/NA	Analysis	8270D SIM		1			365889	03/17/17 18:47	MKW	TAL DEN
Total/NA	Prep	5035			5.471 g	5 mL	365877	03/12/17 13:55	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	365893	03/17/17 14:02	DAW	TAL DEN
Total/NA	Prep	3546			30.2 g	1 mL	365534	03/15/17 10:46	JRA	TAL DEN
Total/NA	Cleanup	3630M			1 mL	1 mL	365740	03/16/17 12:38	CDC	TAL DEN
Total/NA	Analysis	8015C		1			365788	03/17/17 05:20	KDK	TAL DEN
Total/NA	Prep	3050B			1.389 g	100 mL	365399	03/14/17 14:15	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365533	03/15/17 04:40	CDH	TAL DEN
Total/NA	Prep	3050B			1.389 g	100 mL	365399	03/14/17 14:15	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365700	03/15/17 13:19	SJS	TAL DEN
Total/NA	Prep	3050B			1.389 g	100 mL	365399	03/14/17 14:15	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365846	03/16/17 13:53	SJS	TAL DEN
Total/NA	Prep	3050B			1.127 g	100 mL	365398	03/14/17 14:15	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			365518	03/15/17 01:37	LMT	TAL DEN
Total/NA	Prep	7471A			0.57 g	50 mL	365338	03/14/17 12:14	TEB	TAL DEN
Total/NA	Analysis	7471A		1			365508	03/14/17 21:31	TEB	TAL DEN
Total/NA	Prep	3060A			2.5626 g	500 mL	414776	03/15/17 17:54	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	415073	03/16/17 16:44	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	415189	03/16/17 16:44	BMC	TAL NSH

Laboratory References:

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

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TestAmerica Denver

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94690-1

Laboratory: TestAmerica Denver

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
A2LA	DoD 7LAP		2906.01	10-E1-16
A2LA	ISO/17C 16023		2906.01	10-E1-16
Alabama	State Program	4	406E0	09-E0-12 5
Alaska STU	State Program	10	(ST-E0	04-03-18
Arizona	State Program	9	Az 061E	12-20-16
Arkansas D7Z	State Program	Q	88-0Q86	0Q01-16
California	State Program	9	231E	01-08-18 5
Connecticut	State Program	1	PH-0Q8Q	09-E0-18
Florida	N7LAP	4	786Q86	0QE0-16
Georgia	State Program	4	N/A	01-08-18
Illinois	N7LAP	3	200016	04-E0-18
Iowa	State Program	6	E60	12-01-18 5
Kansas	N7LAP	6	7-101QQ	04-E0-16 5
Louisiana	N7LAP	Q	0209Q	0QE0-16
Maine	State Program	1	CO0002	0E-0E-19
Minnesota	N7LAP	3	8-999-403	12-E1-16 5
Nevada	State Program	9	CO002Q	06-E1-16
New Hampshire	N7LAP	1	203E10	04-28-16
New Jersey	N7LAP	2	CO004	0QE0-16
New York	N7LAP	2	119Q4	04-01-18
North Carolina KWW/SWU	State Program	4	E38	12-E1-16
North Dakota	State Program	8	R-0E4	01-09-18
Oklahoma	State Program	Q	8Q14	08-E1-16
Oregon	N7LAP	10	4023	01-08-18
Pennsylvania	N7LAP	E	Q8-00Q4	06-E1-16
South Carolina	State Program	4	62002001	01-09-16 5
Texas	N7LAP	Q	T10460418E-1Q-12	09-E0-16
(SDA	Federal		PEE0-1Q-00E96	12-13-19
(tah	N7LAP	8	CO0002Q	06-E1-16
Virginia	N7LAP	E	4Q02E2	0Q14-16
Washington	State Program	10	C38E	08-02-16
West Virginia D7P	State Program	E	E34	11-E0-16
Wisconsin	State Program	3	999Q134E0	08-E1-16
Wyoming K STU	A2LA	8	2906.01	10-E1-16

Laboratory: TestAmerica Nashville

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
A2LA	A2LA		NA: N7LAP & A2LA	12-E1-16
A2LA	ISO/17C 16023		043E.06	12-E1-16
Alaska STU	State Program	10	(ST-086	06-24-16
Arizona	State Program	9	Az 046E	03-03-16
Arkansas D7Z	State Program	Q	88-06E6	04-23-16
California	State Program	9	29E8	10-E1-18
Connecticut	State Program	1	PH-0220	12-E1-16
Florida	N7LAP	4	786E38	0QE0-16
Georgia	State Program	4	N/A	12-E1-16
Illinois	N7LAP	3	200010	12-09-16
Iowa	State Program	6	1E1	04-01-18

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

TestAmerica Denver

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94690-1

Laboratory: TestAmerica Nashville (Continued)

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
Kansas	N7LAP	6	7-10229	10-E1-16
Kentucky k STU	State Program	4	19	0Q-E0-16
Kentucky kWWU	State Program	4	900E8	12-E1-16
Louisiana	N7LAP	Q	E0Q1E	0Q-E0-16
Maine	State Program	1	TN000E2	11-0E-16
Maryland	State Program	E	E1Q	0E-E1-18
Massachusetts	State Program	1	M-TN0E2	0Q-E0-16
Minnesota	N7LAP	3	046-999-E43	12-E1-16
Mississippi	State Program	4	N/A	0Q-E0-16
Montana k STU	State Program	8	NA	02-24-20
Nevada	State Program	9	TN000E2	06-E1-16
New Hampshire	N7LAP	1	29QE	10-09-16
New Jersey	N7LAP	2	TN9Q8	0Q-E0-16
New York*	N7LAP	2	11E42	0E-E1-16 5
North Carolina kWW/SWU	State Program	4	E86	12-E1-16
North Dakota	State Program	8	R-14Q	0Q-E0-16
Ohio VAP	State Program	3	CL00EE	06-10-16
Oklahoma	State Program	Q	9412	08-E1-16
Oregon	N7LAP	10	TN200001	04-26-16
Pennsylvania	N7LAP	E	Q8-00383	0Q-E0-16
Rhode Island	State Program	1	LA0002Q8	12-E0-16
South Carolina	State Program	4	84009 k001U	02-18-16 5
South Carolina kDo Not (se - DWU	State Program	4	84009 k002U	12-1Q-16
Tennessee	State Program	4	2008	02-2E-20
Texas	N7LAP	Q	T104604066	08-E1-16
(SDA	Federal		PEE0-1E-00E0Q	12-01-19
(tah	N7LAP	8	TN000E2	06-E1-16
Virginia	N7LAP	E	4Q132	0Q-14-16
Washington	State Program	10	C689	06-19-16
West Virginia D7P	State Program	E	219	02-28-18
Wisconsin	State Program	3	9980204E0	08-E1-16
Wyoming k STU	A2LA	8	43E.06	12-E1-16


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

TestAmerica Denver

Arvada, CO 80002-4517
phone 303.736.0100 fax 303.431.7171

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Bethany Lucente		Site Contact: Bethany Lucente		Date:		Carrier: Courier		COC No:											
Slantec		Tel/Fax: (303) 250-4718		Lab Contact: Jamie Ide						of COCs											
2000 South Colorado Blvd., Suite 2-300		Analysis Turnaround Time		Analysis Turnaround Time						Sampler:											
Denver, CO 80222		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS						For Lab Use Only:											
(303) 758-4058 Phone		TAT If different from Below		TAT If different from Below						Walk-In Client:											
(303) 758-4828 FAX		ASAP		ASAP						Lab Sampling:											
Project Name: CPL-Rangely C-4		2 weeks		2 weeks						Job / SDG No.:											
Site: CPL Rangely		1 week		1 week																	
P O # 203720102		2 days		2 days																	
		1 day		1 day																	
Sample Identification	Sample Date	Sample Time	Sample Type (C-Comp, G-Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	BTEX 8260B	ORO-TEPH 8015C	ORO-TEPH 8015C	ORO-TEPH 8015C	DRO, ORO w/ SGHEM	PAHs 8270D SIM	EC/SAR	Metals 6010C	Hg 7471A	PH 9045D	Moisture	Cr/II/ Cr/VI 7196A	As 6020	Sample Specific Notes:
RC4-HER12-0.25	3/12/17	1245	G	S	11	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
RC4-HER13-0.25	↓	1315	↓	↓	13	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
RC4-HER14-0.25	↓	1355	↓	↓	13	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
 280-94790 Chain of Custody																					
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other																					
Possible Hazard Identification: Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.																					
Special Instructions/QC Requirements & Comments:																					
Metals Include Ba, B, Cd, Cr, Cu, Pb, Ni, Se, Ag, Zn																					
Custody Seal No.:		Company: Slantec		Date/Time: 3/12/17 1535		Cooler Temp. (°C): 3.3		Corrd: 3.3		Therm ID No.: 7											
Relinquished by: Anna Spina		Company: Slantec		Date/Time: 3/12/17 1535		Received by: [Signature]		Company: [Signature]		Date/Time: 3/13/17 1535											
Relinquished by: [Signature]		Company: [Signature]		Date/Time: 3/13/17 2021		Received by: [Signature]		Company: [Signature]		Date/Time: 3/13/17 2021											
Relinquished by: [Signature]		Company: [Signature]		Date/Time: 3/13/17 2021		Received by: [Signature]		Company: [Signature]		Date/Time: 3/13/17 2021											

5653
COOLER RECEIPT FORM



280-94790 Chain of Custody

Cooler Received/Opened On 3/15/2017 @ 0924

Time Samples Removed From Cooler 1218 Time Samples Placed In Storage 1408 (2 Hour Window)

1. Tracking # 3225 (last 4 digits, FedEx) Courier: FedEx
IR Gun ID 160656843 pH Strip Lot NA Chlorine Strip Lot NA

2. Temperature of rep. sample or temp blank when opened: 0.9 Degrees Celsius

3. If Item #2 temperatures is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 Front & Back

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) SEN

7. Were custody seals on containers: YES NO and intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # 1

I certify that I unloaded the cooler and answered questions 7-14 (initial) SEN

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) SEN

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) SEN

I certify that I attached a label with the unique LIMS number to each container (initial) SEN

21. Were there Non-Conformance issues at login? YES...NO...NA Was a NCM generated? YES...NO...NA

4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

280-94790

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

4/5/2017

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-94790-1

Login Number: 94790

List Source: TestAmerica Denver

List Number: 1

Creator: True, Joshua A

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.	N/A	
Sample custody seals, if present, are intact.	N/A	
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.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-94790-1

Login Number: 94790

List Number: 2

Creator: Vest, Laura E

List Source: TestAmerica Nashville

List Creation: 03/15/17 12:59 PM

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.	N/A	
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	0.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver

4955 Yarrow Street

Arvada, CO 80002

Tel: (303)736-0100

TestAmerica Job ID: 280-94790-2

Client Project/Site: Stantec CVX - Rangely, CO

Revision: 1

For:

Stantec Consulting Corp.

2000 South Colorado Blvd

Suite 2-300

Denver, Colorado 80222

Attn: Ms. Bethany Lucente



Authorized for release by:

4/5/2017 4:34:56 PM

Jamie Ide, Project Manager I

(303)736-0126

jamie.ide@testamericainc.com

LINKS

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results through

TotalAccess

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www.testamericainc.com

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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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-2

Qualifiers

GC Semi 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.

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, 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)

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-2

Job ID: 280-94790-2

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Stantec Consulting Corp.
Project: Stantec CVX - Rangely, CO
Report Number: 280-94790-2

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.

REVISION - 4/5/17

Per client request 3/31/17, the ORO originally requested on the chain of custody was removed from the analytical report.

RECEIPT

The samples were received on 3/13/2017 8:06 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.3° C.

The sample collection time listed on the container labels of sample volume received for sample RC4-HER12-0.25 (280-94790-1) does not match the chain of custody. The container labels list a collection time of 1250 while the chain of custody lists a collection time of 1245. The laboratory logged the sample collection time per the chain of custody and will proceed unless instructed otherwise. The client was notified on 3/14/2017.

The sample ID on the container labels of eight of eight 4 oz soil jars received for sample RC4-HER13-0.25 (280-94790-2) does not match the chain of custody. The container labels list a sample ID of RC4-CLD13-0.25 while the chain of custody lists a sample ID of RC4-HER13-0.25. It can be noted that all other containers received for this sample have a sample ID that matches the chain of custody and all containers received for this sample have a collection date/time that matches the information on the chain of custody for this sample. The laboratory logged the sample ID of the discrepant containers per the information on the chain of custody and will proceed unless instructed otherwise. The client was notified on 3/14/2017.

The container count on the chain of custody for sample RC4-HER14-0.25 (280-94790-3) does not match the container count received. The chain of custody lists a container count of 13 while the laboratory only received 12 containers. However, sufficient sample volume was received to perform the requested analyses per the chain of custody and the associated laboratory analysts have been notified of the limited available sample volume. The client was notified on 3/14/2017.

The requested 8015C DRO/ORO (No Silica Gel Cleanup) will be found in this report; all other analyses requested on the chain of custody will be reported under a separate cover (280-94790-1).

DIESEL RANGE ORGANICS

The initial aliquot and surrogate aliquot used for extraction of the following sample was split between two extraction vessels with the routine volume of solvent added to each vessel: RC4-HER13-0.25 (280-94790-2). After the extraction, the extracts from both vessels were combined and concentrated.

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

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94690-2

Client Sample ID: RC4-HERL0-2.05

ba8 Sample ID: 092-64162-L

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil Fac	D	Method	Prep Type
DRO (C10-C28)	1.N	J	4.9	0.84	mg/Kg	1	☼	8015C	Total/7 A

Client Sample ID: RC4-HERL3-2.05

ba8 Sample ID: 092-64162-0

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil Fac	D	Method	Prep Type
DRO (C10-C28)	1.8	J	5.2	0.88	mg/Kg	1	☼	8015C	Total/7 A

Client Sample ID: RC4-HERL4-2.05

ba8 Sample ID: 092-64162-3

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil Fac	D	Method	Prep Type
DRO (C10-C28)	3.6	J	4.6	0.80	mg/Kg	1	☼	8015C	Total/7 A

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Method Summary

601: n tal tec 6 ol sS il u 6 orgp
. ro Ectj nite: n tal tec 6 / V - Xal ue 6 ,

TestAmerica Job ID: 280-94790-2

Method	Method Description	Protocol	Laboratory
80156	Nol ha 0uel ated , rual ics Ssil u G6jFID -Modified (DieseCXal ue , rual ics)	nO 84W	TAL DEN

Protocol References:

nO 84W= "Test Methods For EvaSatil u no 0 O astey. hRica 6 hemica 0Methods"yThird Editiol yNovember 198WAI d Its Udatesp

Laboratory References:

TAL DEN = TestAmerica Del very4955 Yarrow ntreetyArvaday6 , 80002yTEL (303)73W0100

Sample Summary

Client: nta tec 1 of sS u 1 orgp
Project: nta tec 1 / V - Xal ue Cy 1,

TestAmerica Job ID: 280-94790-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-94790-0	X14-HEX02-0p25	no	03/02/07 02:45	03/03/07 20:06
280-94790-2	X14-HEX03-0p25	no	03/02/07 03:05	03/03/07 20:06
280-94790-3	X14-HEX04-0p25	no	03/02/07 03:55	03/03/07 20:06

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-HER12-0.25

Date Collected: 03/12/16 12:45

Date Received: 03/13/16 20:0v

Analyst

DRO (C10-C28)

Result

1.1

Qualifier

A

RL

4.9

MDL

0.84

Unit

mg/Kg

D

☼

Prepared

03/15/17 10:45

Analyst

03/17/17 13:30

Dil Fac

1

Lab Sample ID: 280-94690-1

Matrix: Solid

Percent Solids: 80.0

Surrogate

%Recovery

76

Qualifier

Limits

64 - 991

Prepared

503/13/ 95:61

Analyzed

503/3/ 90:05

Dil Fac

9

Client Sample ID: RC4-HER13-0.25

Date Collected: 03/12/16 13:15

Date Received: 03/13/16 20:0v

Analyst

DRO (C10-C28)

Result

1.8

Qualifier

A

RL

5.2

MDL

0.88

Unit

mg/Kg

D

☼

Prepared

03/15/17 10:45

Analyst

03/17/17 13:59

Dil Fac

1

Lab Sample ID: 280-94690-2

Matrix: Solid

Percent Solids: 6v.0

Surrogate

%Recovery

77

Qualifier

Limits

64 - 991

Prepared

503/13/ 95:61

Analyzed

503/3/ 90:14

Dil Fac

9

Client Sample ID: RC4-HER14-0.25

Date Collected: 03/12/16 13:55

Date Received: 03/13/16 20:0v

Analyst

DRO (C10-C28)

Result

3.6

Qualifier

A

RL

4.7

MDL

0.80

Unit

mg/Kg

D

☼

Prepared

03/15/17 10:45

Analyst

03/17/17 14:28

Dil Fac

1

Lab Sample ID: 280-94690-3

Matrix: Solid

Percent Solids: 83.2

Surrogate

%Recovery

78

Qualifier

Limits

64 - 991

Prepared

503/13/ 95:61

Analyzed

503/3/ 96:28

Dil Fac

9

TestAmerica Denver

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94690-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTPH1 (49-115)
280-94690-1	RC4-HER12-0.2L	74
280-94690-2	RC4-HER15-0.2L	77
280-94690-5	RC4-HER14-0.2L	78
3CS 280-57LL47/2-A	3ab Control Sample	66
MB 280-57LL47/1-A	Method Blank	6L

Surrogate Legend

OTPH = o-Terphenyl (Surr)

QC Sample Results

1 of 1 total test results for this sample
 . result: not detected / V - Xal ue 1,

TestAmerica Job ID: 280-94690-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 280-365546/1-A
 Matrix: Solid
 Analysis Batch: 365789

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 365546

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DX, Q (0-128)	ND		40	0.08	µg/g	-	05/16/17 06:47	05/16/17 06:47	(
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	75		49 - 115				03/15/17 10:45	03/17/17 06:45	1

Lab Sample ID: LCS 280-365546/2-A
 Matrix: Solid
 Analysis Batch: 365789

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 365546
 %Rec.

Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	
DX, Q (0-128)		100	79		µg/g	-	89	75 - 115	
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
o-Terphenyl (Surr)	77		49 - 115						

TestAmerica Del ver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-2

GC Semi VOA

Prep Batch: 365546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Total/NA	Solid	3546	
280-94790-2	RC4-HER13-0.25	Total/NA	Solid	3546	
280-94790-3	RC4-HER14-0.25	Total/NA	Solid	3546	
MB 280-365546/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-365546/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 365789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Total/NA	Solid	8015C	365546
280-94790-2	RC4-HER13-0.25	Total/NA	Solid	8015C	365546
280-94790-3	RC4-HER14-0.25	Total/NA	Solid	8015C	365546
MB 280-365546/1-A	Method Blank	Total/NA	Solid	8015C	365546
LCS 280-365546/2-A	Lab Control Sample	Total/NA	Solid	8015C	365546

Lab Chronicle

Client: Stantec Consulting Corp.
 1 roectjSite: Stantec C/ V - XangelRyC,

TestAmerica Job ID: 280-94690-2

Client Sample ID: RC4-HER02-. 528

Date Collected: . 3/02/01 02:48

Date ReceiTed: . 3/03/01 2. :. y

Lab Sample ID: 29. -6416. -0

Matrix: Solid

7 ercent Solidv: 9. 5

7 rep BPpe	Aatch BPpe	Aatch Method	Run	Dil Factor	Initial s mount	Final s mount	Aatch Number	7 repared or s nalPzed	s nalPvt	Lab
TotaljNA	1 rep	CB45			0.4 g	7 mL	053345	0Q73j76 70:43	JXA	TAL DEN
TotaljNA	AnalRs	8073C		7			053689	0Q76j76 70:00	DAW	TAL DEN

Client Sample ID: RC4-HER03-. 528

Date Collected: . 3/02/01 03:08

Date ReceiTed: . 3/03/01 2. :. y

Lab Sample ID: 29. -6416. -2

Matrix: Solid

7 ercent Solidv: 1y5

7 rep BPpe	Aatch BPpe	Aatch Method	Run	Dil Factor	Initial s mount	Final s mount	Aatch Number	7 repared or s nalPzed	s nalPvt	Lab
TotaljNA	1 rep	CB45			0.4 g	7 mL	053345	0Q73j76 70:43	JXA	TAL DEN
TotaljNA	AnalRs	8073C		7			053689	0Q76j76 70:39	DAW	TAL DEN

Client Sample ID: RC4-HER04-. 528

Date Collected: . 3/02/01 03:88

Date ReceiTed: . 3/03/01 2. :. y

Lab Sample ID: 29. -6416. -3

Matrix: Solid

7 ercent Solidv: 935

7 rep BPpe	Aatch BPpe	Aatch Method	Run	Dil Factor	Initial s mount	Final s mount	Aatch Number	7 repared or s nalPzed	s nalPvt	Lab
TotaljNA	1 rep	CB45			0.4 g	7 mL	053345	0Q73j76 70:43	JXA	TAL DEN
TotaljNA	AnalRs	8073C		7			053689	0Q76j76 74:28	DAW	TAL DEN

LaboratorP Referencev:

TAL DEN = TestAmerica Denvery4933 Yarrow StreetyArvadayC, 80002yTEL (000)605-0700

Accreditation/Certification Summary

Client: Stantec Consulting Corp.

TestAmerica Job ID: 280-94690-2

1 roectjSite: Stantec C/ V - XangelRyC,

Laboratory: TestAmerica Denver

All accreQtationsjcertidcations f elObRtf is laboratorRare listeQ h ot all accreQtationsjcertidcations are applicable to tf is report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2NA	DoD 7NA1		2906.0L	L0-EL-L6
A2NA	IS, jI7C L6023		2906.0L	L0-EL-L6
Alabama	State 1rogram	4	406E0	09-E0-L2 5
Alas*a k STU	State 1rogram	L0	(ST-E0	04-03-L8
Ari) ona	State 1rogram	9	Az 06LE	L2-20-L6
Ar* ansas D7Z	State 1rogram	Q	88-0Q86	0Q0L-L6
Calidornia	State 1rogram	9	23LE	0L-08-L8 5
Connecticut	State 1rogram	L	1H-0Q8Q	09-E0-L8
FloriCa	h 7NA1	4	786QQ6	0QE0-L6
Georgia	State 1rogram	4	hJA	0L-08-L8
Illinois	h 7NA1	3	2000L6	04-E0-L8
Iowa	State 1rogram	6	E60	L2-0L-L8 5
Kansas	h 7NA1	6	7-L0LQQ	04-E0-L6 5
Nbuisiana	h 7NA1	Q	0209Q	0QE0-L6
Maine	State 1rogram	L	C, 0002	0E-0E-L9
Minnesota	h 7NA1	3	8-999-403	L2-EL-L6 5
hevaCa	State 1rogram	9	C, 002Q	06-EL-L6
hew Hampsf ire	h 7NA1	L	203EL0	04-28-L6
hew JerseR	h 7NA1	2	C, 004	0QE0-L6
hew Yor*	h 7NA1	2	LL9Q4	04-0L-L8
hortf Carolina kWWjSWU	State 1rogram	4	E38	L2-EL-L6
hortf Da*ota	State 1rogram	8	X-0E4	0L-09-L8
, *laf oma	State 1rogram	Q	8QL4	08-EL-L6
, regon	h 7NA1	L0	4023	0L-08-L8
1ennsRvania	h 7NA1	E	Q8-00QQ4	06-EL-L6
Soutf Carolina	State 1rogram	4	6200200L	0L-09-L6 5
Texas	h 7NA1	Q	TL04604L8E-LQL2	09-E0-L6
(SDA	FeQeral		1EE0-LQ00E96	L2-L3-L9
(taf	h 7NA1	8	C, 0002Q	06-EL-L6
/ irginia	h 7NA1	E	4Q02E2	0QL4-L6
Wasf ington	State 1rogram	L0	C38E	08-02-L6
West / irginia D71	State 1rogram	E	E34	LL-E0-L6
Wisconsin	State 1rogram	3	999QL34E0	08-EL-L6
WRming k STU	A2NA	8	2906.0L	L0-EL-L6

Chain of Custody Record



THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

[illegible]

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-94790-2

Login Number: 94790

List Source: TestAmerica Denver

List Number: 1

Creator: True, Joshua A

Question	Answer	Comment
Activity as noted on the back of the receipt by a surveyor.	No	
Is the cooler's seal intact, present?	No	
Sample seals intact, present?	No	
Is the cooler or samples not appear to have been compromised or tampered with?	Yes	
Samples were received on ice.	Yes	
Cooler temperature is acceptable.	Yes	
Cooler temperature is recorded.	Yes	
Is C is present.	Yes	
Is C is, filled out in handwritten legible.	Yes	
Is C is, filled out by it all pertinent information.	Yes	
Is the QR Sample name present on the CI	No	
Are there no discrepancies between the containers received and the CI.	No	Refer to Job Narrative, or Details.
Samples are received in the original (during tests by immediate)	Yes	
Sample containers have legible labels.	Yes	
Containers are not broken or leaking.	Yes	
Sample collection dates are provided.	Yes	
Appropriate sample containers are used.	Yes	
Sample bottles are completely filled.	Yes	
Sample preservation Period.	No	
Is there sufficient detail for all received analyses including received samples?	Yes	
Containers receiving Dewar space have no Dewar space or bubble is	No	
Additional samples are not present.	Yes	
Samples do not require splitting or compositing.	Yes	
Actual C or line C check.	No	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver

4955 Yarrow Street

Arvada, CO 80002

Tel: (303)736-0100

TestAmerica Job ID: 280-95013-1

Client Project/Site: Stantec CVX - Rangely, CO

For:

Stantec Consulting Corp.

2000 South Colorado Blvd

Suite 2-300

Denver, Colorado 80222

Attn: Ms. Bethany Lucente



Authorized for release by:

4/4/2017 5:28:36 PM

Jamie Ide, Project Manager I

(303)736-0126

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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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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95013-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS 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
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC 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

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

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
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, 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

TestAmerica Denver

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95013-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95013-1

Job ID: 280-95013-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Stantec Consulting Corp.
Project: Stantec CVX - Rangely, CO
Report Number: 280-95013-1

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 on 3/21/2017 7:25 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.3° C.

The requested EC and CrIII/CrVI analyses were performed by TestAmerica's Nashville laboratory.

The 8015C DRO with Silica gel clean up will be reported under a separate cover (280-95013-2). All other analyses requested on the chain of custody will be found in this report.

Per client instruction 4/3/17, the ORO results requested on the chain of custody were not reported/performed; because of the overlapping DRO and ORO carbon ranges, the recalculation of the DRO results may have changed since the time of release for the preliminary results given sample matrix as well as the carbon ranges in question.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

The MS/MSD performed on sample RC4-EX-15-0.25 (280-95013-1) exhibited spike recoveries outside QC control limits for several analytes. The associated LCS was in control and demonstrates that operating procedures were in control. No further action was required. No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM)

2-Fluorobiphenyl, Nitrobenzene-d5 and/or Terphenyl-d14 failed the surrogate recovery criteria high for RC4-EX-15-0.25 (280-95013-1), RC4-EX-16-0.25 (280-95013-2), and RC4-EX-17-0.25 (280-95013-3). 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. The surrogate recoveries are calculated from diluted samples and in some cases are diluted below reportable limits.

Due to the matrix, the following sample could not be concentrated to the final method required volume: RC4-EX-15-0.25 (280-95013-1). The reporting limits (RLs) are elevated proportionately. The following final volume has been changed from 1 mL to 2 mL.

Samples RC4-EX-15-0.25 (280-95013-1)[40X], RC4-EX-16-0.25 (280-95013-2)[40X] and RC4-EX-17-0.25 (280-95013-3)[40X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

GASOLINE RANGE ORGANICS (GRO)

Re-analysis requested 3/27/17

Per client request on 3/27/17, the 8015C GRO was submitted for re-analysis. It can be noted that the soil jars were previously opened and any volatile compounds present within the sample jar may have escaped from the sample materials. There is an increased potential that the data will be biased low in the re-analysis. Both the original analysis and re-analysis will be found in this report.

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95013-1

Job ID: 280-95013-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

a,a,a-Trifluorotoluene failed the surrogate recovery criteria high for RC4-EX-15-0.25 (280-95013-1), RC4-EX-16-0.25 (280-95013-2), and RC4-EX-17-0.25 (280-95013-3). Evidence of matrix interference is present; therefore, corrective action was not performed.

Samples RC4-EX-15-0.25 (280-95013-1)[50X], RC4-EX-16-0.25 (280-95013-2)[10X] and RC4-EX-17-0.25 (280-95013-3)[20X] required dilution prior to analysis due to the nature of the sample matrix. The reporting limits have been adjusted accordingly.

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

DIESEL RANGE ORGANICS

Per client request on 3/27/17, the 8015C DRO was submitted for re-extraction and re-analysis. Both the original analysis and re-analysis will be found in this report.

Per client instruction 4/3/17, the ORO results were not reported; because of the overlapping DRO and ORO carbon ranges, the recalculation of the DRO results may have changed since the time of release for the preliminary results given sample matrix as well as the carbon ranges in question.

o-Terphenyl failed the surrogate recovery criteria high for RC4-EX-15-0.25 (280-95013-1), RC4-EX-16-0.25 (280-95013-2), and RC4-EX-17-0.25 (280-95013-3). Evidence of matrix interference is present; therefore, corrective action was not performed.

o-Terphenyl failed the surrogate recovery criteria high for Method Blank MB 280-367209/1-A. The associated MB was non-detect for the affected analytes; and matrix interference is present in the associated client samples; therefore, corrective action was not performed.

Samples RC4-EX-15-0.25 (280-95013-1)[10X], RC4-EX-16-0.25 (280-95013-2)[2X] and RC4-EX-17-0.25 (280-95013-3)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Due to the matrix, the following samples could not be concentrated to the final method required volume: RC4-EX-15-0.25 (280-95013-1), RC4-EX-16-0.25 (280-95013-2) and RC4-EX-17-0.25 (280-95013-3). The reporting limits (RLs) are elevated proportionately.

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

SODIUM ABSORPTION RATIO

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

TOTAL METALS (ICP)

Calcium and Magnesium were detected in method blank MB 280-366216/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

The MS/MSD performed on sample RC4-EX-15-0.25 (280-95013-1) exhibited spike recoveries outside QC control limits for several analytes. The associated LCS was in control and demonstrates that operating procedures were in control. No further action was required. No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

METALS (ICPMS)

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

TOTAL MERCURY (CVAA)

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

HEXAVALENT CHROMIUM

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

TRIVALENT CHROMIUM

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

PH

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95013-1

Job ID: 280-95013-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

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

ELECTRICAL CONDUCTIVITY

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

PERCENT SOLIDS

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

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94071-7

Client Sample ID: RC4-EX-15-0.25

Lab Sample ID: 280-95013-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Btzyben5ene	0.E0	67	0.23	0.013	mg/Kg	7	☆	8230h	Total/NA	
Toluene	0.19	67	0.23	0.087	mg/Kg	7	☆	8230h	Total/NA	
m-Xylene Mp-Xylene	1.8	67	0.23	0.082	mg/Kg	7	☆	8230h	Total/NA	
o-Xylene	7.9	67	0.71	0.01E	mg/Kg	7	☆	8230h	Total/NA	
Xylenes, Total	4.E	67	0.23	0.01E	mg/Kg	7	☆	8230h	Total/NA	
Czrysene	7.4		0.82	0.081	mg/Kg	80	☆	82E0D SI(	Total/NA	
6luorene	7.3		0.82	0.019	mg/Kg	80	☆	82E0D SI(	Total/NA	
Napztzalene	4.9		0.82	0.02E	mg/Kg	80	☆	82E0D SI(	Total/NA	
Pyrene	0.E1		0.82	0.092	mg/Kg	80	☆	82E0D SI(	Total/NA	
) RO dC3-C70L	830		31	7E	mg/Kg	40	☆	8074C	Total/NA	
) RO dC3-C70L- RB	7000		37	7E	mg/Kg	40	☆	8074C	Total/NA	
DRO dC70-C28L	22000		730	2E	mg/Kg	70	☆	8074C	Total/NA	
DRO dC70-C28L- RB	28000		730	23	mg/Kg	4	☆	8074C	Total/NA	
Na	380		70	70	mg/Kg	70		20h	Soluble	
Ca	8E0		2.0	2.0	mg/Kg	70		20h	Soluble	
(g	290		2.0	2.0	mg/Kg	70		20h	Soluble	
SoFium AFsorption Ratio	4.7		7.2	7.2	No k nit	70		20h	Soluble	
harium	290	67	0.93	0.099	mg/Kg	7	☆	3070C	Total/NA	
CaFmium	0.4E		0.88	0.019	mg/Kg	7	☆	3070C	Total/NA	
Czromium	78		7.8	0.044	mg/Kg	7	☆	3070C	Total/NA	
ZeaF	20	67	0.83	0.10	mg/Kg	7	☆	3070C	Total/NA	
horon	78		9.3	0.98	mg/Kg	7	☆	3070C	Total/NA	
Selenium	7.3	67	7.8	0.82	mg/Kg	7	☆	3070C	Total/NA	
Calcium	10000	h	88	71	mg/Kg	7	☆	3070C	Total/NA	
Copper	78		7.9	0.27	mg/Kg	7	☆	3070C	Total/NA	
(agnesium	72000	67 h	79	1.4	mg/Kg	7	☆	3070C	Total/NA	
Nicxel	79	67	1.8	0.71	mg/Kg	7	☆	3070C	Total/NA	
SoFium	930		880	43	mg/Kg	7	☆	3070C	Total/NA	
vinc	EE	67	2.9	0.18	mg/Kg	7	☆	3070C	Total/NA	
Arsenic	E.3		0.44	0.083	mg/Kg	7	☆	3020A	Total/NA	
(ercury	0.029		0.027	0.003E	mg/Kg	7	☆	E&E7A	Total/NA	
Czromium, zeH	2.2	J	4.7	2.0	mg/Kg	7	☆	E793A	Total/NA	
Czromium, triUalent	73		4.2	2.7	mg/Kg	7	☆	E793A	Total/NA	
pG aFj. to 24 Feg C	8.0	G6	0.7	0.7	Sk	7		90&4D	Soluble	
Temperature	79.4	G6	7.0	7.0	Degrees C	7		90&4D	Soluble	
Blectrical ConFuctiUty	E.0		0.070	0.070	mmzos/cm	7		9040A	Soluble	

Client Sample ID: RC4-EX-16-0.25

Lab Sample ID: 280-95013-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
hen5ene	0.12		0.29	0.041	mg/Kg	7	☆	8230h	Total/NA	
Btzyben5ene	2.0		0.29	0.080	mg/Kg	7	☆	8230h	Total/NA	
Toluene	2.4		0.29	0.083	mg/Kg	7	☆	8230h	Total/NA	
m-Xylene Mp-Xylene	70		0.29	0.097	mg/Kg	7	☆	8230h	Total/NA	
o-Xylene	8.E		0.74	0.087	mg/Kg	7	☆	8230h	Total/NA	
Xylenes, Total	74		0.29	0.087	mg/Kg	7	☆	8230h	Total/NA	
Czrysene	0.84		0.21	0.084	mg/Kg	80	☆	82E0D SI(	Total/NA	
6luorene	0.3E		0.21	0.027	mg/Kg	80	☆	82E0D SI(	Total/NA	
Napztzalene	2.2		0.21	0.074	mg/Kg	80	☆	82E0D SI(	Total/NA	
Pyrene	0.70	J	0.21	0.040	mg/Kg	80	☆	82E0D SI(	Total/NA	

Tzis Detection Summary Foes not incluFe raFiocczemical test results.

TestAmerica DenUbr

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94071-7

Client Sample ID: RC4-EX-16-0.25 (Continued)

Lab Sample ID: 280-95013-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
) RO dC3-C70L	220		7&	1.E	mg/Kg	70		✖	8074C	Total/NA
) RO dC3-C70L- RB	280		7&	1.E	mg/Kg	70		✖	8074C	Total/NA
DRO dC70-C28L	E900		1E	3.1	mg/Kg	2		✖	8074C	Total/NA
DRO dC70-C28L- RB	E700		&3	E.E	mg/Kg	70		✖	8074C	Total/NA
Na	270		70	70	mg/Kg	70			20h	Soluble
Ca	370		2.0	2.0	mg/Kg	70			20h	Soluble
(g	720		2.0	2.0	mg/Kg	70			20h	Soluble
SoFium AFsorption Ratio	2.0		7.2	7.2	No k nit	70			20h	Soluble
harium	9E0		7.0	0.77	mg/Kg	7		✖	3070C	Total/NA
CaFmium	0.30		0.42	0.0&1	mg/Kg	7		✖	3070C	Total/NA
Czromium	78		7.3	0.037	mg/Kg	7		✖	3070C	Total/NA
ZeaF	2E		0.9&	0.12	mg/Kg	7		✖	3070C	Total/NA
horon	7&		70	7.0	mg/Kg	7		✖	3070C	Total/NA
Selenium	7.4 J		7.3	0.90	mg/Kg	7		✖	3070C	Total/NA
Calcium	2E000 h		42	74	mg/Kg	7		✖	3070C	Total/NA
Copper	78		2.7	0.21	mg/Kg	7		✖	3070C	Total/NA
(agnesium	77000 h		27	1.9	mg/Kg	7		✖	3070C	Total/NA
Nicxel	79		&2	0.7&	mg/Kg	7		✖	3070C	Total/NA
SoFium	110 J		420	32	mg/Kg	7		✖	3070C	Total/NA
vinc	E1		1.7	0.&2	mg/Kg	7		✖	3070C	Total/NA
Arsenic	E.2		0.3&	0.04&	mg/Kg	7		✖	3020A	Total/NA
(ercury	0.029		0.027	0.003E	mg/Kg	7		✖	E&E7A	Total/NA
Czromium, zeH	1.& J		4.E	2.1	mg/Kg	7		✖	E793A	Total/NA
Czromium, triUalent	74		4.8	2.1	mg/Kg	7		✖	E793A	Total/NA
pG aFj. to 24 Feg C	E.9 G6		0.7	0.7	Sk	7			90&4D	Soluble
Temperature	79.E G6		7.0	7.0	Degrees C	7			90&4D	Soluble
Blectrical ConFuctiUty	&.0		0.070	0.070	mmzos/cm	7			9040A	Soluble

Client Sample ID: RC4-EX-17-0.25

Lab Sample ID: 280-95013-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
BtzyIben5ene	0.71 J		0.2E	0.01E	mg/Kg	7		✖	8230h	Total/NA
Toluene	0.0&3 J		0.2E	0.0&1	mg/Kg	7		✖	8230h	Total/NA
m-Xylene Mp-Xylene	0.87		0.2E	0.083	mg/Kg	7		✖	8230h	Total/NA
o-Xylene	0.48		0.7&	0.018	mg/Kg	7		✖	8230h	Total/NA
Xylenes, Total	7.&		0.2E	0.018	mg/Kg	7		✖	8230h	Total/NA
hen5o[b]fluorantzene	0.041 J		0.22	0.042	mg/Kg	&0		✖	82E0D SI(	Total/NA
Czrysene	0.E1		0.22	0.0&&	mg/Kg	&0		✖	82E0D SI(	Total/NA
6luorene	0.91		0.22	0.020	mg/Kg	&0		✖	82E0D SI(	Total/NA
Napztzalene	4.0		0.22	0.07&	mg/Kg	&0		✖	82E0D SI(	Total/NA
Pyrene	0.11		0.22	0.0&8	mg/Kg	&0		✖	82E0D SI(	Total/NA
) RO dC3-C70L	1&0		2E	E.1	mg/Kg	20		✖	8074C	Total/NA
) RO dC3-C70L- RB	170		23	E.2	mg/Kg	20		✖	8074C	Total/NA
DRO dC70-C28L	72000		770	78	mg/Kg	4		✖	8074C	Total/NA
DRO dC70-C28L- RB	4000		22	1.E	mg/Kg	4		✖	8074C	Total/NA
Na	330		70	70	mg/Kg	70			20h	Soluble
Ca	420		2.0	2.0	mg/Kg	70			20h	Soluble
(g	8&		2.0	2.0	mg/Kg	70			20h	Soluble
SoFium AFsorption Ratio	E.0		7.2	7.2	No k nit	70			20h	Soluble
harium	740		0.81	0.083	mg/Kg	7		✖	3070C	Total/NA

Tzis Detection Summary Foes not incluFe raFiocczemical test results.

TestAmerica DenUbr

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94071-7

Client Sample ID: RC4-EX-17-0.25 (Continued)

Lab Sample ID: 280-95013-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
CaFmium	0.83		0.87	0.018	mg/Kg	7	*		3070C	Total/NA
Czromium	73		7.2	0.088	mg/Kg	7	*		3070C	Total/NA
ZeaF	79		0.E4	0.23	mg/Kg	7	*		3070C	Total/NA
horon	72		8.1	0.87	mg/Kg	7	*		3070C	Total/NA
Selenium	0.9E	J	7.2	0.E7	mg/Kg	7	*		3070C	Total/NA
Calcium	29000	h	87	72	mg/Kg	7	*		3070C	Total/NA
Copper	7E		7.E	0.78	mg/Kg	7	*		3070C	Total/NA
(agnesium	72000	h	7E	1.7	mg/Kg	7	*		3070C	Total/NA
Nicxel	78		1.1	0.77	mg/Kg	7	*		3070C	Total/NA
SoFium	4E0		870	89	mg/Kg	7	*		3070C	Total/NA
vinc	E8		2.4	0.11	mg/Kg	7	*		3070C	Total/NA
Arsenic	E3		0.38	0.048	mg/Kg	7	*		3020A	Total/NA
(ercury	0.014		0.021	0.00E1	mg/Kg	7	*		E8E7A	Total/NA
Czromium, zeH	2.3	J	4.8	2.2	mg/Kg	7	*		E793A	Total/NA
Czromium, triLalent	71		4.4	2.2	mg/Kg	7	*		E793A	Total/NA
pG aFj. to 24 Feg C	8.0	G6	0.7	0.7	Sk	7			9084D	Soluble
Temperature	79.8	G6	7.0	7.0	Degrees C	7			9084D	Soluble
Blectrical ConFuctiUty	8.9		0.070	0.070	mmzos/cm	7			9040A	Soluble

Tzis Detection Summary Foes not incluFe raFiocczemical test results.

TestAmerica DenUer

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-6

Method	Method Description	Protocol	Laboratory
82d0(	Volatile Organic Compounds M C/L SE	SW8Bd	TAND7v
8250D SIL	Semivolatiles Organic Compounds M C/L S SIL E	SW8Bd	TAND7v
8064C	vonFalogenateGOrganics using) C/f ID -L oGüGGM asoline Range OrganicsE	SW8Bd	TAND7v
8064C	vonFalogenateGOrganics using) C/f ID -L oGüGMDiesel Range OrganicsE	SW8Bd	TAND7v
20(	SoGum AGsorption Ratio	HSDA	TAND7v
d060C	L etals MCP/L SE	SW8Bd	TAND7v
d020A	L etals MCP/L SE	SW8Bd	TAND7v
5B56A	L ercury MVAEE	SW8Bd	TAND7v
569dA	CFromium, x e=ahalent	SW8Bd	TANv Sx
569dA	CFromium, Trihalent MColorimetricE	SW8Bd	TANv Sx
90B4D	px	SW8Bd	TAND7v
9040A	Specilüt ConGuctance	SW8Bd	TANv Sx
L oisture	Percent L oisture	7PA	TAND7v

Protocol References:

7PA " HS 7nhironmental Protection Agency
SW8Bd " kTest L etFoGs f or 7 haluating SoliGWaste, PFysical/CFemical L etFoGs, TFirG7 Gtion, v ohember 698d AnGIts HpGates.
HSDA " KHSDA Agriculture x anGoo" d0, section 20(Y

Laboratory References:

TAND7v " TestAmerica Denher, B944 warro3 Street, ArhaGa, CO 80002, T7NM01E1d-0600
TANv Sx " TestAmerica v asFhille, 29d0 f oster CreigFton Drihe, v asFhille, Tv 1520B, T7NM64E2d-0655

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95013-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-95013-1	RC4-EX-15-0.25	Solid	03/18/17 15:00	03/21/17 00:00
280-95013-2	RC4-EX-16-0.25	Solid	03/18/17 16:20	03/21/17 00:00
280-95013-3	RC4-EX-17-0.25	Solid	03/19/17 14:40	03/21/17 00:00

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-6

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

Client Sample ID: RCHE. -74-0524

Date Collected: 01/78/73 74:00

Date Received: 01/27/73 00:00

Lab Sample ID: 280-94071-7

Matrix: Solid

Percent Solids: 9454

z naIJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naIJyed	Dil Aac
5enKene	3D		0.27	0.0h8	mg/Ng	✱	01/26/6F 64:46	01/26/6F 69:h2	6
EthJIbenylene	050	A7	0.27	0.017	mg/Ng	✱	01/26/6F 64:46	01/26/6F 69:h2	6
f oluene	0519	A7	0.27	0.0h6	mg/Ng	✱	01/26/6F 64:46	01/26/6F 69:h2	6
m-. Jlene T p-. Jlene	15	A7	0.27	0.082	mg/Ng	✱	01/26/6F 64:46	01/26/6F 69:h2	6
o-. Jlene	75	A7	0.61	0.01F	mg/Ng	✱	01/26/6F 64:46	01/26/6F 69:h2	6
. JlenesXf otal	45	A7	0.27	0.01F	mg/Ng	✱	01/26/6F 64:46	01/26/6F 69:h2	6

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	195		32 - 103	90/21/17 13:31	90/21/17 15:42	1
Toluene-d8 (Surr)	55		X3 - 103	90/21/17 13:31	90/21/17 15:42	1
4-6roB ortuorof enbene (Surr)	57		X3 - 103	90/21/17 13:31	90/21/17 15:42	1
Dif roB ortuoroB ethane (Surr)	191		X3 - 103	90/21/17 13:31	90/21/17 15:42	1

Client Sample ID: RCHE. -76-0524

Date Collected: 01/78/73 76:20

Date Received: 01/27/73 00:00

Lab Sample ID: 280-94071-2

Matrix: Solid

Percent Solids: 8651

z naIJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naIJyed	Dil Aac
Benylene	0512		0.29	0.041	mg/Ng	✱	01/26/6F 64:46	01/26/6F 20:26	6
EthJIbenylene	250		0.29	0.0h0	mg/Ng	✱	01/26/6F 64:46	01/26/6F 20:26	6
f oluene	254		0.29	0.0h7	mg/Ng	✱	01/26/6F 64:46	01/26/6F 20:26	6
m-. Jlene T p-. Jlene	70		0.29	0.096	mg/Ng	✱	01/26/6F 64:46	01/26/6F 20:26	6
o-. Jlene	H5		0.64	0.0h6	mg/Ng	✱	01/26/6F 64:46	01/26/6F 20:26	6
. JlenesXf otal	74		0.29	0.0h6	mg/Ng	✱	01/26/6F 64:46	01/26/6F 20:26	6

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	190		32 - 103	90/21/17 13:31	90/21/17 29:21	1
Toluene-d8 (Surr)	55		X3 - 103	90/21/17 13:31	90/21/17 29:21	1
4-6roB ortuorof enbene (Surr)	5X		X3 - 103	90/21/17 13:31	90/21/17 29:21	1
Dif roB ortuoroB ethane (Surr)	5X		X3 - 103	90/21/17 13:31	90/21/17 29:21	1

Client Sample ID: RCHE. -73-0524

Date Collected: 01/79/73 7H:H0

Date Received: 01/27/73 00:00

Lab Sample ID: 280-94071-1

Matrix: Solid

Percent Solids: 9054

z naIJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naIJyed	Dil Aac
5enKene	3D		0.2F	0.040	mg/Ng	✱	01/26/6F 64:46	01/26/6F 20:h0	6
EthJIbenylene	0571	&	0.2F	0.01F	mg/Ng	✱	01/26/6F 64:46	01/26/6F 20:h0	6
f oluene	05H6	&	0.2F	0.0h1	mg/Ng	✱	01/26/6F 64:46	01/26/6F 20:h0	6
m-. Jlene T p-. Jlene	057		0.2F	0.087	mg/Ng	✱	01/26/6F 64:46	01/26/6F 20:h0	6
o-. Jlene	058		0.6h	0.018	mg/Ng	✱	01/26/6F 64:46	01/26/6F 20:h0	6
. JlenesXf otal	75H		0.2F	0.018	mg/Ng	✱	01/26/6F 64:46	01/26/6F 20:h0	6

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	194		32 - 103	90/21/17 13:31	90/21/17 29:49	1
Toluene-d8 (Surr)	59		X3 - 103	90/21/17 13:31	90/21/17 29:49	1
4-6roB ortuorof enbene (Surr)	51		X3 - 103	90/21/17 13:31	90/21/17 29:49	1
Dif roB ortuoroB ethane (Surr)	53		X3 - 103	90/21/17 13:31	90/21/17 29:49	1

TestAmerica DenBer

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-6

Method: 8230D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Client Sample ID: RCHE. -74-0524

Date Collected: 01/78/73 74:00

Date Received: 01/27/73 00:00

Lab Sample ID: 280-94071-7

Matrix: Solid

Percent Solids: 9451

z naJte	Result	UualiQer	RL	MDL	Fnit	D	Prepared	z naJyed	Dil Aac
Acenapztzene	3D		0.h2	0.061	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:28	h0
Antzracene	3D		0.h2	0.070	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:28	h0
5enKo[a]antzracene	3D		0.h2	0.0F4	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:28	h0
5enKo[a]pyrene	3D		0.h2	0.072	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:28	h0
5enKo[b]kuorantzene	3D		0.h2	0.60	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:28	h0
5enKo[f]kuorantzene	3D		0.h2	0.081	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:28	h0
ChrJsene	754		0.h2	0.081	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:28	h0
DibenK(a,z)antzracene	3D		0.h2	0.66	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:28	h0
dluorantzene	3D		0.h2	0.081	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:28	h0
Aluorene	755		0.h2	0.019	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:28	h0
Inveno[6,2,1-cv]pyrene	3D		0.h2	0.092	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:28	h0
, aphthalene	459		0.h2	0.02F	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:28	h0
PJrene	0531		0.h2	0.092	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:28	h0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-zluorof iFhenpl	250	y D	05 - 129	90/21/17 12:02	90/24/17 15:28	49
Nitrof enbene-d3	10040	y D	42 - 129	90/21/17 12:02	90/24/17 15:28	49
TerFhenpl-d14	034	y D	03 - 124	90/21/17 12:02	90/24/17 15:28	49

Client Sample ID: RCHE. -76-0524

Date Collected: 01/78/73 76:20

Date Received: 01/27/73 00:00

Lab Sample ID: 280-94071-2

Matrix: Solid

Percent Solids: 8651

z naJte	Result	UualiQer	RL	MDL	Fnit	D	Prepared	z naJyed	Dil Aac
Acenapztzene	3D		0.21	0.00F2	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:41	h0
Antzracene	3D		0.21	0.011	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:41	h0
5enKo[a]antzracene	3D		0.21	0.0h6	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:41	h0
5enKo[a]pyrene	3D		0.21	0.011	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:41	h0
5enKo[b]kuorantzene	3D		0.21	0.04h	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:41	h0
5enKo[f]kuorantzene	3D		0.21	0.0h4	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:41	h0
ChrJsene	0544		0.21	0.0h4	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:41	h0
DibenK(a,z)antzracene	3D		0.21	0.049	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:41	h0
dluorantzene	3D		0.21	0.0h4	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:41	h0
Aluorene	0553		0.21	0.026	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:41	h0
Inveno[6,2,1-cv]pyrene	3D		0.21	0.040	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:41	h0
, aphthalene	252		0.21	0.064	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:41	h0
PJrene	0570 &		0.21	0.040	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 69:41	h0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-zluorof iFhenpl	121	y D	05 - 129	90/21/17 12:02	90/24/17 15:30	49
Nitrof enbene-d3	3800	y D	42 - 129	90/21/17 12:02	90/24/17 15:30	49
TerFhenpl-d14	118	D	03 - 124	90/21/17 12:02	90/24/17 15:30	49

Client Sample ID: RCHE. -73-0524

Date Collected: 01/79/73 74:00

Date Received: 01/27/73 00:00

Lab Sample ID: 280-94071-1

Matrix: Solid

Percent Solids: 9051

z naJte	Result	UualiQer	RL	MDL	Fnit	D	Prepared	z naJyed	Dil Aac
Acenapztzene	3D		0.22	0.00F0	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 20:h4	h0
Antzracene	3D		0.22	0.016	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 20:h4	h0
5enKo[a]antzracene	3D		0.22	0.019	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 20:h4	h0
5enKo[a]pyrene	3D		0.22	0.012	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 20:h4	h0

TestAmerica DenBer

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-6

Method: 8230D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: RCHE. -73-0524

Date Collected: 01/79/73 7H:00

Date Received: 01/27/73 00:00

Lab Sample ID: 280-94071-1

Matrix: Solid

Percent Solids: 90.51

z naJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naJyed	Dil Aac
BenyoNb[Quoranthene	0541	&	0.22	0.042	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 20:h4	h0
5enKof]luorantzene	3 D		0.22	0.0hh	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 20:h4	h0
ChrJsene	051		0.22	0.0hh	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 20:h4	h0
DibenK(a,z)antzracene	3 D		0.22	0.04F	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 20:h4	h0
dluorantzene	3 D		0.22	0.0hh	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 20:h4	h0
Aluorene	051		0.22	0.020	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 20:h4	h0
Inveno[6,2,1-cv]pyrene	3 D		0.22	0.0h8	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 20:h4	h0
, aphthalene	450		0.22	0.06h	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 20:h4	h0
PJrene	051		0.22	0.0h8	mg/Ng	✱	01/26/6F 62:12	01/2h/6F 20:h4	h0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-zluorof iFhenpl	174	y D	05 - 129	90/21/17 12:02	90/24/17 29:43	49
Nitrof enbene-d3	14403	y D	42 - 129	90/21/17 12:02	90/24/17 29:43	49
TerFhenpl-d14	292	y D	03 - 124	90/21/17 12:02	90/24/17 29:43	49

Method: 8074C - , onhalogenated Organics using GC/AID -ModiQed (Gasoline Range Organics)

Client Sample ID: RCHE. -74-0524

Date Collected: 01/78/73 74:00

Date Received: 01/27/73 00:00

Lab Sample ID: 280-94071-7

Matrix: Solid

Percent Solids: 94.51

z naJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naJyed	Dil Aac
GRO (C6-C70)	860		71	6F	mg/Ng	✱	01/26/6F 66:40	01/26/6F 64:12	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trirfluorotoluene	8X9	y D	77 - 120	90/21/17 11:39	90/21/17 13:02	39

Client Sample ID: RCHE. -76-0524

Date Collected: 01/78/73 76:20

Date Received: 01/27/73 00:00

Lab Sample ID: 280-94071-2

Matrix: Solid

Percent Solids: 86.51

z naJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naJyed	Dil Aac
GRO (C6-C70)	220		6h	1.F	mg/Ng	✱	01/26/6F 66:40	01/22/6F 66:12	60

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trirfluorotoluene	101	D y	77 - 120	90/21/17 11:39	90/22/17 11:02	19

Client Sample ID: RCHE. -73-0524

Date Collected: 01/79/73 7H:00

Date Received: 01/27/73 00:00

Lab Sample ID: 280-94071-1

Matrix: Solid

Percent Solids: 90.51

z naJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naJyed	Dil Aac
GRO (C6-C70)	1H0		2F	F.1	mg/Ng	✱	01/26/6F 66:40	01/22/6F 62:08	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trirfluorotoluene	257	D y	77 - 120	90/21/17 11:39	90/22/17 12:98	29

Method: 8074C - , onhalogenated Organics using GC/AID -ModiQed (Gasoline Range Organics) - RE

Client Sample ID: RCHE. -74-0524

Date Collected: 01/78/73 74:00

Date Received: 01/27/73 00:00

Lab Sample ID: 280-94071-7

Matrix: Solid

Percent Solids: 94.51

z naJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naJyed	Dil Aac
GRO (C6-C70)	7000		76	6F	mg/Ng	✱	01/29/6F 66:42	01/10/6F 07:6h	40

TestAmerica DenBer

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-6

Method: 8074C - , onhalogenated Organics using GC/AID -Modified (Gasoline Range Organics) - RE (Continued)

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	888	D y	77 - 120				90/25/17 11:32	90/09/17 9X:14	39
Client Sample ID: RCHE. -76-0524 Date Collected: 01/78/73 76:20 Date Received: 01/27/73 00:00							Lab Sample ID: 280-94071-2 Matrix: Solid Percent Solids: 86%		
z naJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naJyed	Dil Aac
GRO (C6-C70)	280		6h	1.F	mg/Ng	☆	01/29/6F 66:42	01/10/6F 07:19	60
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	1X0	D y	77 - 120				90/25/17 11:32	90/09/17 9X:05	19
Client Sample ID: RCHE. -73-0524 Date Collected: 01/79/73 7H:00 Date Received: 01/27/73 00:00							Lab Sample ID: 280-94071-1 Matrix: Solid Percent Solids: 90%		
z naJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naJyed	Dil Aac
GRO (C6-C70)	170		27	F.2	mg/Ng	☆	01/29/6F 66:42	01/10/6F 0F:0h	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	275	D y	77 - 120				90/25/17 11:32	90/09/17 97:94	29

Method: 8074C - , onhalogenated Organics using GC/AID -Modified (Diesel Range Organics)

Client Sample ID: RCHE. -74-0524							Lab Sample ID: 280-94071-7		
Date Collected: 01/78/73 74:00							Matrix: Solid		
Date Received: 01/27/73 00:00							Percent Solids: 94%		
z naIJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naIJyed	Dil Aac
DRO (C70-C28)	22000		670	2F	mg/Ng	☆	01/26/6F 62:6h	01/22/6F 62:2F	60
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-TerFhenpl (Surr)	7X4	D y	45 - 113				90/21/17 12:14	90/22/17 12:27	19

Client Sample ID: RCHE. -76-0524							Lab Sample ID: 280-94071-2		
Date Collected: 01/78/73 76:20							Matrix: Solid		
Date Received: 01/27/73 00:00							Percent Solids: 86%		
z naIJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naIJyed	Dil Aac
DRO (C70-C28)	3900		1F	7.1	mg/Ng	☆	01/26/6F 62:6h	01/22/6F 66:29	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-TerFhenpl (Surr)	1335	y	45 - 113				90/21/17 12:14	90/22/17 11:25	2

Client Sample ID: RCHE. -73-0524							Lab Sample ID: 280-94071-1		
Date Collected: 01/79/73 7H:00							Matrix: Solid		
Date Received: 01/27/73 00:00							Percent Solids: 90%		
z naIJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naIJyed	Dil Aac
DRO (C70-C28)	72000		660	68	mg/Ng	☆	01/26/6F 62:6h	01/22/6F 66:48	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-TerFhenpl (Surr)	040	D y	45 - 113				90/21/17 12:14	90/22/17 11:38	3

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-6

Method: 8074C - , onhalogenated Organics using GC/AID -Modified (Diesel Range Organics) - RE

Client Sample ID: RCHE. -74-0524

Date Collected: 01/78/73 74:00

Date Received: 01/27/73 00:00

Lab Sample ID: 280-94071-7

Matrix: Solid

Percent Solids: 9454

z naIJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naIJyed	Dil Aac
DRO (C70-C28)	2H00		670	27	mg/Ng	☆	01/29/6F 0F:49	01/10/6F 22:60	4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-TerFhenpl (Surr)	24	y D	45 - 113	90/25/17 97:35	90/09/17 22:19	3

Client Sample ID: RCHE. -76-0524

Date Collected: 01/78/73 76:20

Date Received: 01/27/73 00:00

Lab Sample ID: 280-94071-2

Matrix: Solid

Percent Solids: 8651

z naIJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naIJyed	Dil Aac
DRO (C70-C28)	3700		h7	F.F	mg/Ng	☆	01/29/6F 0F:49	01/10/6F 22:14	60

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-TerFhenpl (Surr)	0X	y D	45 - 113	90/25/17 97:35	90/09/17 22:03	19

Client Sample ID: RCHE. -73-0524

Date Collected: 01/79/73 7H:H0

Date Received: 01/27/73 00:00

Lab Sample ID: 280-94071-1

Matrix: Solid

Percent Solids: 905H

z naIJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naIJyed	Dil Aac
DRO (C70-C28)	4000		22	1.F	mg/Ng	☆	01/29/6F 0F:49	0h/01/6F 62:6h	4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-TerFhenpl (Surr)	X28	y D	45 - 113	90/25/17 97:35	94/90/17 12:14	3

Method: 20B - Sodium z dsorption Ratio - Soluble

Client Sample ID: RCHE. -74-0524

Date Collected: 01/78/73 74:00

Date Received: 01/27/73 00:00

Lab Sample ID: 280-94071-7

Matrix: Solid

Percent Solids: 9454

z naIJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naIJyed	Dil Aac
, a	680		60	60	mg/Ng		01/26/6F 66:21	01/21/6F 02:60	60
Ca	830		2.0	2.0	mg/Ng		01/26/6F 66:21	01/21/6F 02:60	60
Mg	290		2.0	2.0	mg/Ng		01/26/6F 66:21	01/21/6F 02:60	60
Sodium z dsorption Ratio	457		6.2	6.2	3 o Unit		01/26/6F 66:21	01/21/6F 02:60	60

Client Sample ID: RCHE. -76-0524

Date Collected: 01/78/73 76:20

Date Received: 01/27/73 00:00

Lab Sample ID: 280-94071-2

Matrix: Solid

Percent Solids: 8651

z naIJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naIJyed	Dil Aac
, a	270		60	60	mg/Ng		01/26/6F 66:21	01/21/6F 02:24	60
Ca	670		2.0	2.0	mg/Ng		01/26/6F 66:21	01/21/6F 02:24	60
Mg	720		2.0	2.0	mg/Ng		01/26/6F 66:21	01/21/6F 02:24	60
Sodium z dsorption Ratio	250		6.2	6.2	3 o Unit		01/26/6F 66:21	01/21/6F 02:24	60

Client Sample ID: RCHE. -73-0524

Date Collected: 01/79/73 7H:H0

Date Received: 01/27/73 00:00

Lab Sample ID: 280-94071-1

Matrix: Solid

Percent Solids: 905H

z naIJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naIJyed	Dil Aac
, a	660		60	60	mg/Ng		01/26/6F 66:21	01/21/6F 02:11	60
Ca	420		2.0	2.0	mg/Ng		01/26/6F 66:21	01/21/6F 02:11	60
Mg	8H		2.0	2.0	mg/Ng		01/26/6F 66:21	01/21/6F 02:11	60
Sodium z dsorption Ratio	350		6.2	6.2	3 o Unit		01/26/6F 66:21	01/21/6F 02:11	60

TestAmerica DenBer

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-6

Method: 6070C - Metals (ICP)

Client Sample ID: RCHE. -74-0524

Date Collected: 01/78/73 74:00

Date Received: 01/27/73 00:00

Lab Sample ID: 280-94071-7

Matrix: Solid

Percent Solids: 9454

z naJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naJyed	Dil Aac
Barium	290	A7	0.97	0.099	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 6F:41	6
Cadmium	053		0.h8	0.019	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 6F:41	6
Chromium	78		6.h	0.044	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 6F:41	6
Lead	20	A7	0.87	0.10	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 6F:41	6
Boron	7H		9.7	0.9h	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 6F:41	6
Selenium	75	A7	6.h	0.82	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 6F:41	6
SilBer	3D		0.97	0.64	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 6F:41	6
Calcium	10000	B	h8	61	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 6F:41	6
Copper	78		6.9	0.26	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 6F:41	6
Magnesium	72000	A7 B	69	1.4	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 6F:41	6
, ic] el	79	A7	1.8	0.61	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 6F:41	6
Sodium	960		h80	47	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 6F:41	6
kinc	33	A7	2.9	0.18	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 6F:41	6

Client Sample ID: RCHE. -76-0524

Date Collected: 01/78/73 76:20

Date Received: 01/27/73 00:00

Lab Sample ID: 280-94071-2

Matrix: Solid

Percent Solids: 8651

z naJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naJyed	Dil Aac
Barium	930		6.0	0.66	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:04	6
Cadmium	050		0.42	0.0h1	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:04	6
Chromium	78		6.7	0.076	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:04	6
Lead	23		0.9h	0.12	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:04	6
Boron	7H		60	6.0	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:04	6
Selenium	75	&	6.7	0.90	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:04	6
SilBer	3D		6.0	0.6F	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:04	6
Calcium	23000	B	42	64	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:04	6
Copper	78		2.6	0.21	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:04	6
Magnesium	77000	B	26	1.9	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:04	6
, ic] el	79		h.2	0.6h	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:04	6
Sodium	110	&	420	72	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:04	6
kinc	31		1.6	0.h2	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:04	6

Client Sample ID: RCHE. -73-0524

Date Collected: 01/79/73 7H:H0

Date Received: 01/27/73 00:00

Lab Sample ID: 280-94071-1

Matrix: Solid

Percent Solids: 905H

z naJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naJyed	Dil Aac
Barium	740		0.81	0.087	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:08	6
Cadmium	056		0.h6	0.01h	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:08	6
Chromium	76		6.2	0.0h8	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:08	6
Lead	79		0.F4	0.27	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:08	6
Boron	72		8.1	0.86	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:08	6
Selenium	053	&	6.2	0.F6	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:08	6
SilBer	3D		0.81	0.61	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:08	6
Calcium	29000	B	h6	62	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:08	6
Copper	73		6.F	0.68	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:08	6
Magnesium	72000	B	6F	1.6	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:08	6
, ic] el	78		1.1	0.66	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:08	6
Sodium	430		h60	h9	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:08	6
kinc	3H		2.4	0.11	mg/Ng	☆	01/22/6F 0F:h0	01/22/6F 68:08	6

TestAmerica DenBer

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-6

Method: 6020z - Metals (ICP/MS)

Client Sample ID: RCHE. -74-0524 Date Collected: 01/78/73 74:00 Date Received: 01/27/73 00:00							Lab Sample ID: 280-94071-7 Matrix: Solid Percent Solids: 9454		
z naIJte	Result	UualiQer	RL	MDL	F nit	D	Prepared	z naIJyed	Dil Aac
z rsenic	355		0.44	0.0h7	mg/Ng	☼	01/22/6F 0F:h0	01/22/6F 20:h2	6
Client Sample ID: RCHE. -76-0524 Date Collected: 01/78/73 76:20 Date Received: 01/27/73 00:00							Lab Sample ID: 280-94071-2 Matrix: Solid Percent Solids: 8654		
z naIJte	Result	UualiQer	RL	MDL	F nit	D	Prepared	z naIJyed	Dil Aac
z rsenic	352		0.7h	0.04h	mg/Ng	☼	01/22/6F 0F:h0	01/22/6F 20:h2	6
Client Sample ID: RCHE. -73-0524 Date Collected: 01/79/73 7H:H0 Date Received: 01/27/73 00:00							Lab Sample ID: 280-94071-1 Matrix: Solid Percent Solids: 9054		
z naIJte	Result	UualiQer	RL	MDL	F nit	D	Prepared	z naIJyed	Dil Aac
z rsenic	355		0.7h	0.04h	mg/Ng	☼	01/22/6F 0F:h0	01/22/6F 20:h7	6

Method: 3H37z - MercurJ (CVz z)

Client Sample ID: RCHE. -74-0524 Date Collected: 01/78/73 74:00 Date Received: 01/27/73 00:00							Lab Sample ID: 280-94071-7 Matrix: Solid Percent Solids: 9454		
z naIJte	Result	UualiQer	RL	MDL	F nit	D	Prepared	z naIJyed	Dil Aac
MercurJ	0529		0.026	0.007F	mg/Ng	☼	01/22/6F 62:16	01/22/6F 22:66	6
Client Sample ID: RCHE. -76-0524 Date Collected: 01/78/73 76:20 Date Received: 01/27/73 00:00							Lab Sample ID: 280-94071-2 Matrix: Solid Percent Solids: 8654		
z naIJte	Result	UualiQer	RL	MDL	F nit	D	Prepared	z naIJyed	Dil Aac
MercurJ	0529		0.026	0.007F	mg/Ng	☼	01/22/6F 62:16	01/22/6F 22:68	6
Client Sample ID: RCHE. -73-0524 Date Collected: 01/79/73 7H:H0 Date Received: 01/27/73 00:00							Lab Sample ID: 280-94071-1 Matrix: Solid Percent Solids: 9054		
z naIJte	Result	UualiQer	RL	MDL	F nit	D	Prepared	z naIJyed	Dil Aac
MercurJ	0514		0.021	0.00F1	mg/Ng	☼	01/22/6F 62:16	01/22/6F 22:20	6

General ChemistrJ

Client Sample ID: RCHE. -74-0524 Date Collected: 01/78/73 74:00 Date Received: 01/27/73 00:00							Lab Sample ID: 280-94071-7 Matrix: Solid Percent Solids: 9454		
z naIJte	Result	UualiQer	RL	MDL	F nit	D	Prepared	z naIJyed	Dil Aac
ChromiumXhex	252	&	4.6	2.0	mg/Ng	☼	01/22/6F 69:20	01/22/6F 21:60	6
ChromiumXtrivalent	76		4.2	2.6	mg/Ng	☼		01/22/6F 21:60	6
Percent Moisture	H54		0.6	0.6	%			01/26/6F 08:h1	6
Percent Solids	9454		0.6	0.6	%			01/26/6F 08:h1	6
Client Sample ID: RCHE. -76-0524 Date Collected: 01/78/73 76:20 Date Received: 01/27/73 00:00							Lab Sample ID: 280-94071-2 Matrix: Solid Percent Solids: 8654		
z naIJte	Result	UualiQer	RL	MDL	F nit	D	Prepared	z naIJyed	Dil Aac
ChromiumXhex	154	&	4.F	2.1	mg/Ng	☼	01/22/6F 69:20	01/22/6F 21:60	6
ChromiumXtrivalent	74		4.8	2.1	mg/Ng	☼		01/22/6F 21:60	6

TestAmerica DenBer

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-6

General Chemistry (Continued)

Client Sample ID: RCHE. -76-0524

Date Collected: 01/78/73 76:20

Date Received: 01/27/73 00:00

Lab Sample ID: 280-94071-2

Matrix: Solid

Percent Solids: 86%

z naJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naJyed	Dil Aac
Percent Moisture	71%		0.6	0.6	%			01/26/6F 08:h1	6
Percent Solids	86%		0.6	0.6	%			01/26/6F 08:h1	6

Client Sample ID: RCHE. -73-0524

Date Collected: 01/79/73 7H:H0

Date Received: 01/27/73 00:00

Lab Sample ID: 280-94071-1

Matrix: Solid

Percent Solids: 90%

z naJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naJyed	Dil Aac
ChromiumXhex	2%		4.h	2.2	mg/Ng	*	01/22/6F 69:20	01/22/6F 21:60	6
ChromiumXtrivalent	71		4.4	2.2	mg/Ng	*		01/22/6F 21:60	6
Percent Moisture	9%		0.6	0.6	%			01/26/6F 08:h1	6
Percent Solids	90%		0.6	0.6	%			01/26/6F 08:h1	6

General Chemistry - Soluble

Client Sample ID: RCHE. -74-0524

Date Collected: 01/78/73 74:00

Date Received: 01/27/73 00:00

Lab Sample ID: 280-94071-7

Matrix: Solid

Percent Solids: 94%

z naJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naJyed	Dil Aac
pZ adj5to 24 deg C	8.5	ZA	0.6	0.6	SU			01/2h/6F 64:hF	6
f emperature	79%	ZA	6.0	6.0	Degrees C			01/2h/6F 64:hF	6
Electrical Conductivity	35		0.060	0.060	mmzos/cm		01/2h/6F 61:hF	01/2F/6F 66:00	6

Client Sample ID: RCHE. -76-0524

Date Collected: 01/78/73 76:20

Date Received: 01/27/73 00:00

Lab Sample ID: 280-94071-2

Matrix: Solid

Percent Solids: 86%

z naJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naJyed	Dil Aac
pZ adj5to 24 deg C	3.5	ZA	0.6	0.6	SU			01/2h/6F 64:41	6
f emperature	79%	ZA	6.0	6.0	Degrees C			01/2h/6F 64:41	6
Electrical Conductivity	80		0.060	0.060	mmzos/cm		01/2h/6F 61:hF	01/2F/6F 66:00	6

Client Sample ID: RCHE. -73-0524

Date Collected: 01/79/73 7H:H0

Date Received: 01/27/73 00:00

Lab Sample ID: 280-94071-1

Matrix: Solid

Percent Solids: 90%

z naJte	Result	Uualier	RL	MDL	F nit	D	Prepared	z naJyed	Dil Aac
pZ adj5to 24 deg C	8.5	ZA	0.6	0.6	SU			01/2h/6F 64:41	6
f emperature	79%	ZA	6.0	6.0	Degrees C			01/2h/6F 64:41	6
Electrical Conductivity	80		0.060	0.060	mmzos/cm		01/2h/6F 61:hF	01/2F/6F 66:00	6

TestAmerica Denver

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-6

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 (52-135)	TOL (65-135)	BFB (65-135)	DBFM (65-135)
280-94061-6	RCE-LX-64-0.24	609	99	9H	606
280-94061-6 3 S	RCE-LX-64-0.24	95	662	98	60H
280-94061-6 3 SD	RCE-LX-64-0.24	602	609	602	609
280-94061-2	RCE-LX-65-0.24	601	99	95	95
280-94061-1	RCE-LX-6H-0.24	60E	90	96	94
MCS 280-1552HE/2-A	Mab Control Sample	92	95	96	602
3 7 280-1552HE/6-A	3 etBoh 7 land	92	95	95	9H
Surrogate Legend					
62DCL k 6,2-DicBloroetBane-hE =Surr(
TOMk Toluene-h8 =Surr(
7) 7 k E-7romofluorobenf ene =Surr(
D7) 3 k DibromofluorometBane =Surr(

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (39-120)	NBZ (42-120)	TPH (35-124)
280-94061-6	RCE-LX-64-0.24	291 X D	611E1 X D	14E X D
280-94061-2	RCE-LX-65-0.24	626 X D	4811 X D	668 D
280-94061-1	RCE-LX-6H-0.24	6HE X D	6EE14 X D	202 X D
MCS 280-15526E/2-A	Mab Control Sample	HH	HE	H6
MCSD 280-15526E/1-A	Mab Control Sample Dup	82	HH	80
3 7 280-15526E/6-A	3 etBoh 7 land	59	5E	59
Surrogate Legend				
) 7P k 2-) luorobipBenyl				
z 7N k z itrobenf ene-h4				
TPZ k TerpBenyl-h6E				

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	TFT1 (77-123)						
280-94061-6	RCE-LX-64-0.24	850 X D						
280-94061-6 - RL	RCE-LX-64-0.24	888 D X						
280-94061-2	RCE-LX-65-0.24	616 D X						
280-94061-2 - RL	RCE-LX-65-0.24	651 D X						
280-94061-1	RCE-LX-6H-0.24	29H D X						
280-94061-1 - RL	RCE-LX-6H-0.24	2H9 D X						
MCS 280-155221/2-A	Mab Control Sample	91						
MCS 280-15H288/2-A	Mab Control Sample	9H						
3 7 280-155221/6-A	3 etBoh 7 land	9E						
3 7 280-15H288/6-A	3 etBoh 7 land	606						

TestAmerica Denver

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-6

Surrogate Legend

T) T k a,a,a-Trifluorotoluene

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTPH1 (49-115)
280-94061-6	RCE-LX-64-0.24	H5 E D X
280-94061-6 - RL	RCE-LX-64-0.24	2 E X D
280-94061-2	RCE-LX-65-0.24	6449 X
280-94061-2 - RL	RCE-LX-65-0.24	15 X D
280-94061-1	RCE-LX-6H-0.24	1E1 D X
280-94061-1 - RL	RCE-LX-6H-0.24	528 X D
MCS 280-15569H/2-A	Mab Control Sample	81
MCS 280-15H209/2-A	Mab Control Sample	66E
3 7 280-15569H/6-A	3 etBoh 7 land	84
3 7 280-15H209/6-A	3 etBoh 7 land	665 X

Surrogate Legend

OTPZ k o-TerpBenyl Surr(

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-6

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

Lab Sample ID: MB 280-366274/1-A

Matrix: Solid

Analysis Batch: 366420

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 366274

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	3D		0.24	0.0K4	mg/5g		01/26/6E 64:46	01/26/6E 68:KK	6
ht7ylbenzene	3D		0.24	0.01K	mg/5g		01/26/6E 64:46	01/26/6E 68:KK	6
Toluene	3D		0.24	0.019	mg/5g		01/26/6E 64:46	01/26/6E 68:KK	6
m-Xylene F p-Xylene	3D		0.24	0.0E8	mg/5g		01/26/6E 64:46	01/26/6E 68:KK	6
o-Xylene	3D		0.61	0.014	mg/5g		01/26/6E 64:46	01/26/6E 68:KK	6
Xylenes, Total	3D		0.24	0.014	mg/5g		01/26/6E 64:46	01/26/6E 68:KK	6

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		52 - 135	03/21/17 15:51	03/21/17 1: 14	1
Xoluene-d: (Surr)	98		85 - 135	03/21/17 15:51	03/21/17 1: 14	1
4-6roB ortuorof enbene (Surr)	98		85 - 135	03/21/17 15:51	03/21/17 1: 14	1
Dif roB ortuoroB ethane (Surr)	97		85 - 135	03/21/17 15:51	03/21/17 1: 14	1

Lab Sample ID: LCS 280-366274/2-A

Matrix: Solid

Analysis Batch: 366420

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 366274

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzene	6.98	2.0K		mg/5g		601	84 - 614
ht7ylbenzene	6.98	2.00		mg/5g		606	84 - 614
Toluene	6.98	2.64		mg/5g		608	84 - 614
m-Xylene F p-Xylene	6.98	2.06		mg/5g		606	84 - 614
o-Xylene	6.98	6.98		mg/5g		600	84 - 614
Xylenes, Total	1.9E	1.99		mg/5g		606	84 - 614

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		52 - 135
Xoluene-d: (Surr)	98		85 - 135
4-6roB ortuorof enbene (Surr)	91		85 - 135
Dif roB ortuoroB ethane (Surr)	102		85 - 135

Lab Sample ID: 280-95013-1 MS

Matrix: Solid

Analysis Batch: 366420

Client Sample ID: RC4-EX-15-0.25

Prep Type: Total/NA

Prep Batch: 366274

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Benzene	3D		2.60	2.48		mg/5g	☼	621	84 - 614
ht7ylbenzene	0.E0	M6	2.60	K.80	M6	mg/5g	☼	688	84 - 614
Toluene	0.19	M6	2.60	K.96	M6	mg/5g	☼	264	84 - 614
m-Xylene F p-Xylene	1.8	M6	2.60	61.4	h M6	mg/5g	☼	K&6	84 - 614
o-Xylene	6.9	M6	2.60	E.K1	M6	mg/5g	☼	2&6	84 - 614
Xylenes, Total	4.E	M6	K.20	20.9	M6	mg/5g	☼	1&2	84 - 614

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		52 - 135
Xoluene-d: (Surr)	112		85 - 135
4-6roB ortuorof enbene (Surr)	9:		85 - 135

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-6

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

Lab Sample ID: 280-95013-1 MS

Matrix: Solid

Analysis Batch: 366420

Client Sample ID: RC4-EX-15-0.25

Prep Type: Total/NA

Prep Batch: 366274

Surrogate	MS %Recovery	MS Qualifier	Limits
Dif roB orluoroB ethane (Surr)	107		85 - 135

Lab Sample ID: 280-95013-1 MSD

Matrix: Solid

Analysis Batch: 366420

Client Sample ID: RC4-EX-15-0.25

Prep Type: Total/NA

Prep Batch: 366274

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	3.D		2.08	2.KE		mg/5g	☼	669	84 - 614	K	20
ht7ylbenzene	0.E0	M6	2.08	K.21	M6	mg/5g	☼	6E0	84 - 614	8	20
Toluene	0.19	M6	2.08	K.&K	M6	mg/5g	☼	20K	84 - 614	&	20
m-Xylene F p-Xylene	1.8	M6	2.08	62.4	h M6	mg/5g	☼	K68	84 - 614	8	21
o-Xylene	6.9	M6	2.08	&.94	M6	mg/5g	☼	2K6	84 - 614	E	20
Xylenes, Total	4.E	M6	K.6&	69.4	M6	mg/5g	☼	110	84 - 614	E	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		52 - 135
Xoluene-d: (Surr)	109		85 - 135
4-6roB orluoroF enbene (Surr)	102		85 - 135
Dif roB orluoroB ethane (Surr)	109		85 - 135

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 280-366214/1-A

Matrix: Solid

Analysis Batch: 366714

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 366214

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenap7t7ene	3.D		0.0040	0.0006&	mg/5g		01/26/6E 62:12	01/2K/6E 68:66	6
Ant7racene	3.D		0.0040	0.000E2	mg/5g		01/26/6E 62:12	01/2K/6E 68:66	6
Benzo[a]ant7racene	3.D		0.0040	0.00090	mg/5g		01/26/6E 62:12	01/2K/6E 68:66	6
Benzo[a]pyrene	3.D		0.0040	0.000EK	mg/5g		01/26/6E 62:12	01/2K/6E 68:66	6
Benzo[b]fluorant7ene	3.D		0.0040	0.0062	mg/5g		01/26/6E 62:12	01/2K/6E 68:66	6
Benzo[k]fluorant7ene	3.D		0.0040	0.0060	mg/5g		01/26/6E 62:12	01/2K/6E 68:66	6
C7rysene	3.D		0.0040	0.0060	mg/5g		01/26/6E 62:12	01/2K/6E 68:66	6
Dibenzva,7(ant7racene	3.D		0.0040	0.0061	mg/5g		01/26/6E 62:12	01/2K/6E 68:66	6
Muorant7ene	3.D		0.0040	0.0060	mg/5g		01/26/6E 62:12	01/2K/6E 68:66	6
Muorene	3.D		0.0040	0.000KE	mg/5g		01/26/6E 62:12	01/2K/6E 68:66	6
In) eno[6,2,1-c)]pyrene	3.D		0.0040	0.0066	mg/5g		01/26/6E 62:12	01/2K/6E 68:66	6
3 ap7t7alene	3.D		0.0040	0.00011	mg/5g		01/26/6E 62:12	01/2K/6E 68:66	6
Pyrene	3.D		0.0040	0.0066	mg/5g		01/26/6E 62:12	01/2K/6E 68:66	6

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-zluorof iFhenpl	89		39 - 120	03/21/17 12B2	03/24/17 1: 11	1
y itrof enbene-d5	84		42 - 120	03/21/17 12B2	03/24/17 1: 11	1
XerFhenpl-d14	89		35 - 124	03/21/17 12B2	03/24/17 1: 11	1

TestAmerica DenNr

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-6

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 280-366214/2-A

Matrix: Solid

Analysis Batch: 366714

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 366214

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenap7t7ene	0.0100	0.0299		mg/5g		600	14 - 620
Ant7racene	0.0100	0.02E9		mg/5g		91	K1 - 620
Benzo[a]ant7racene	0.0100	0.0100		mg/5g		600	1& - 620
Benzo[a]pyrene	0.0100	0.02K0		mg/5g		80	20 - 620
Benzo[b]fluorant7ene	0.0100	0.02&2		mg/5g		8E	1E - 620
Benzo[k]fluorant7ene	0.0100	0.02&4		mg/5g		88	K& - 620
C7rysene	0.0100	0.0128		mg/5g		609	1K - 620
Dibenzva,7(ant7racene	0.0100	0.024K		mg/5g		84	20 - 620
Muorant7ene	0.0100	0.02&&		mg/5g		89	K4 - 620
Muorene	0.0100	0.0299		mg/5g		600	KK - 620
In) eno[6,2,1-c)]pyrene	0.0100	0.0228		mg/5g		E&	20 - 62E
3 ap7t7alene	0.0100	0.029K		mg/5g		98	KK - 620
Pyrene	0.0100	0.02E6		mg/5g		90	K1 - 620

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-zluorof iFhenpl	77		39 - 120
y itrof enbene-d5	74		42 - 120
XerFhenpl-d14	71		35 - 124

Lab Sample ID: LCSD 280-366214/3-A

Matrix: Solid

Analysis Batch: 366714

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 366214

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenap7t7ene	0.0100	0.016&		mg/5g		604	14 - 620	4	40
Ant7racene	0.0100	0.0291		mg/5g		98	K1 - 620	4	40
Benzo[a]ant7racene	0.0100	0.0164		mg/5g		604	1& - 620	4	K0
Benzo[a]pyrene	0.0100	0.02KE		mg/5g		82	20 - 620	1	10
Benzo[b]fluorant7ene	0.0100	0.02E2		mg/5g		96	1E - 620	K	28
Benzo[k]fluorant7ene	0.0100	0.02E8		mg/5g		91	K& - 620	4	28
C7rysene	0.0100	0.01K6		mg/5g		66K	1K - 620	K	K6
Dibenzva,7(ant7racene	0.0100	0.0249		mg/5g		8&	20 - 620	2	24
Muorant7ene	0.0100	0.028K		mg/5g		94	K4 - 620	&	10
Muorene	0.0100	0.0120		mg/5g		60E	KK - 620	E	40
In) eno[6,2,1-c)]pyrene	0.0100	0.0210		mg/5g		EE	20 - 62E	6	40
3 ap7t7alene	0.0100	0.0162		mg/5g		60K	KK - 620	&	40
Pyrene	0.0100	0.0289		mg/5g		9&	K1 - 620	&	10

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-zluorof iFhenpl	: 2		39 - 120
y itrof enbene-d5	77		42 - 120
XerFhenpl-d14	: 0		35 - 124

TestAmerica DenNer

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-6

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Lab Sample ID: MB 280-366223/1-A

Matrix: Solid

Analysis Batch: 366270

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 366223

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
d RO VC&-C60(	3D		6.2	0.11	mg/5g		01/26/6E 66:40	01/26/6E 6K:24	6
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Xrifuorotoluene	94		77 - 123				03/21/17 11:50	03/21/17 14:25	1

Lab Sample ID: LCS 280-366223/2-A

Matrix: Solid

Analysis Batch: 366270

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 366223

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
d RO VC&-C60(	4.19	4.84		mg/5g		609	84 - 641		
Surrogate	%Recovery	LCS Qualifier	Limits						
a,a,a-Xrifuorotoluene	93		77 - 123						

Lab Sample ID: MB 280-367288/1-A

Matrix: Solid

Analysis Batch: 367319

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 367288

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
d RO VC&-C60(	3D		6.2	0.11	mg/5g		01/29/6E 66:42	01/29/6E 26:49	6
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Xrifuorotoluene	101		77 - 123				03/29/17 11:52	03/29/17 21:59	1

Lab Sample ID: LCS 280-367288/2-A

Matrix: Solid

Analysis Batch: 367319

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 367288

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
d RO VC&-C60(	4.48	8.28		mg/5g		661	84 - 641		
Surrogate	%Recovery	LCS Qualifier	Limits						
a,a,a-Xrifuorotoluene	97		77 - 123						

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 280-366197/1-A

Matrix: Solid

Analysis Batch: 366278

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 366197

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO VC60-C28(	3D		K0	0.88	mg/5g		01/26/6E 62:6K	01/26/6E 26:28	6
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-XerFhenpl (Surr)	: 5		49 - 115				03/21/17 12:14	03/21/17 21:12	1

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-6

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: LCS 280-366197/2-A

Matrix: Solid

Analysis Batch: 366278

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 366197

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
DRO VC60-C28(	&&E	&E9		mg/5g	-	602	41 - 664
Surrogate	%Recovery	LCS Qualifier	Limits				
o-XerFhenpl (Surr)	3		49 - 115				

Lab Sample ID: MB 280-367209/1-A

Matrix: Solid

Analysis Batch: 367451

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 367209

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO VC60-C28(	3D		K0	0.88	mg/5g	-	01/29/6E 0E:49	01/10/6E 26:26	6
Surrogate	%Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac			
o-XerFhenpl (Surr)	118	N	49 - 115	03/29/17 07:59	03/30/17 21:21	1			

Lab Sample ID: LCS 280-367209/2-A

Matrix: Solid

Analysis Batch: 367451

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 367209

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
DRO VC60-C28(	&&E	&2.4		mg/5g	-	9K	41 - 664
Surrogate	%Recovery	LCS Qualifier	Limits				
o-XerFhenpl (Surr)	114		49 - 115				

Method: 20B - Sodium Adsorption Ratio

Lab Sample ID: MB 280-366218/1-A

Matrix: Solid

Analysis Batch: 366681

Client Sample ID: Method Blank

Prep Type: Soluble

Prep Batch: 366218

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3a	3D		60	60	mg/5g	-	01/26/6E 66:21	01/21/6E 02:0E	60
Ca	3D		2.0	2.0	mg/5g	-	01/26/6E 66:21	01/21/6E 02:0E	60
Gg	3D		2.0	2.0	mg/5g	-	01/26/6E 66:21	01/21/6E 02:0E	60
Sodium Adsorption Ratio	3D		6.2	6.2	3 o Unit	-	01/26/6E 66:21	01/21/6E 02:0E	60

Lab Sample ID: 280-95013-2 DU

Matrix: Solid

Analysis Batch: 366681

Client Sample ID: RC4-EX-16-0.25

Prep Type: Soluble

Prep Batch: 366218

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
3a	260		6EK		mg/5g	-	69	20
Ca	860		809		mg/5g	-	0.1	20
Gg	620		662		mg/5g	-	8	20
Sodium Adsorption Ratio	2.0		6.60		3 o Unit	-	68	20

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-6

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 280-366216/1-A
Matrix: Solid
Analysis Batch: 366527

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 366216

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	3 D		6.0	0.60	mg/5g		01/22/6E 0E:K0	01/22/6E 6E:K8	6
Ca) mium	3 D		0.40	0.0K6	mg/5g		01/22/6E 0E:K0	01/22/6E 6E:K8	6
C7romium	3 D		6.4	0.048	mg/5g		01/22/6E 0E:K0	01/22/6E 6E:K8	6
Zea)	3 D		0.90	0.16	mg/5g		01/22/6E 0E:K0	01/22/6E 6E:K8	6
Boron	3 D		60	0.98	mg/5g		01/22/6E 0E:K0	01/22/6E 6E:K8	6
Selenium	3 D		6.4	0.8&	mg/5g		01/22/6E 0E:K0	01/22/6E 6E:K8	6
SiINer	3 D		6.0	0.6&	mg/5g		01/22/6E 0E:K0	01/22/6E 6E:K8	6
Calcium	6E.0 J		40	6K	mg/5g		01/22/6E 0E:K0	01/22/6E 6E:K8	6
Copper	3 D		2.0	0.22	mg/5g		01/22/6E 0E:K0	01/22/6E 6E:K8	6
Gagnesium	K.80 J		20	1.E	mg/5g		01/22/6E 0E:K0	01/22/6E 6E:K8	6
3 ickel	3 D		K.0	0.61	mg/5g		01/22/6E 0E:K0	01/22/6E 6E:K8	6
So) ium	3 D		400	49	mg/5g		01/22/6E 0E:K0	01/22/6E 6E:K8	6
Linc	3 D		1.0	0.K0	mg/5g		01/22/6E 0E:K0	01/22/6E 6E:K8	6

Lab Sample ID: LCS 280-366216/2-A
Matrix: Solid
Analysis Batch: 366527

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 366216
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Barium	200	699		mg/5g		99	8E - 662
Ca) mium	60.0	60.K		mg/5g		60K	8E - 660
C7romium	20.0	20.K		mg/5g		602	8K - 66K
Zea)	40.0	40.9		mg/5g		602	8& - 660
Boron	600	600		mg/5g		600	80 - 620
Selenium	200	206		mg/5g		600	81 - 660
SiINer	4.00	4.K0		mg/5g		608	8E - 66K
Copper	24.0	24.4		mg/5g		602	88 - 660
3 ickel	40.0	40.0		mg/5g		600	8E - 660
Linc	40.0	40.1		mg/5g		606	E& - 66K

Lab Sample ID: 280-95013-1 MS
Matrix: Solid
Analysis Batch: 366527

Client Sample ID: RC4-EX-15-0.25
Prep Type: Total/NA
Prep Batch: 366216
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Barium	290	M6	692	144	M6	mg/5g	☼	14	42 - 649
Ca) mium	0.4E		9.48	E.41		mg/5g	☼	E1	K0 - 610
C7romium	68		69.2	19.K		mg/5g	☼	661	E0 - 200
Zea)	20	M6	KE.9	KE.9	M6	mg/5g	☼	49	E0 - 200
Boron	6K		94.8	96.9		mg/5g	☼	86	80 - 620
Selenium	6.&	M6	692	61E	M6	mg/5g	☼	E6	E& - 60K
SiINer	3 D		KE.9	1.8E		mg/5g	☼	86	E4 - 6K6
Copper	68		21.9	12.8		mg/5g	☼	&2	1E - 68E
3 ickel	69	M6	KE.9	K8.0	M6	mg/5g	☼	&0	&6 - 62&
Linc	EE	M6	KE.9	99.0	M6	mg/5g	☼	K4	E0 - 200

TestAmerica DenNr

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-6

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 280-95013-1 MSD

Matrix: Solid

Analysis Batch: 366527

Client Sample ID: RC4-EX-15-0.25

Prep Type: Total/NA

Prep Batch: 366216

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Barium	290	M6	201	K24		mg/5g	☼	&E	42 - 649	68	20
Ca) mium	0.4E		60.6	8.1&		mg/5g	☼	EE	K0 - 610	60	20
C7romium	68		20.1	K2.1		mg/5g	☼	626	E0 - 200	E	20
Zea)	20	M6	40.E	41.6	M6	mg/5g	☼	&&	E0 - 200	60	20
Boron	6K		606	606		mg/5g	☼	8&	80 - 620	60	20
Selenium	6.&	M6	201	641	M6	mg/5g	☼	E4	E& - 60K	66	20
SilNer	3 D		4.0E	K.12		mg/5g	☼	84	E4 - 6K6	66	20
Copper	68		24.1	14.E		mg/5g	☼	E0	1E - 68E	8	20
3 ickel	69	M6	40.E	42.K		mg/5g	☼	&&	&6 - 62&	9	20
Linc	EE	M6	40.E	60&	M6	mg/5g	☼	4&	E0 - 200	E	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 280-366217/1-A

Matrix: Solid

Analysis Batch: 366536

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 366217

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3 D		0.80	0.046	mg/5g		01/22/6E 0E:K0	01/22/6E 20:6&	6

Lab Sample ID: LCS 280-366217/2-A

Matrix: Solid

Analysis Batch: 366536

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 366217

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	20.0	68.K		mg/5g		92	81 - 666

Lab Sample ID: 280-95013-1 MS

Matrix: Solid

Analysis Batch: 366536

Client Sample ID: RC4-EX-15-0.25

Prep Type: Total/NA

Prep Batch: 366217

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	E&		20.4	2&E		mg/5g	☼	9K	81 - 666

Lab Sample ID: 280-95013-1 MSD

Matrix: Solid

Analysis Batch: 366536

Client Sample ID: RC4-EX-15-0.25

Prep Type: Total/NA

Prep Batch: 366217

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	E&		20.1	2&2		mg/5g	☼	92	81 - 666	2	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 280-366409/1-A

Matrix: Solid

Analysis Batch: 366535

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 366409

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gercury	3 D		0.06E	0.0044	mg/5g		01/22/6E 62:16	01/22/6E 22:0&	6

TestAmerica DenNr

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-6

Lab Sample ID: LCS 280-366409/2-A
Matrix: Solid
Analysis Batch: 366535

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 366409
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.06E	0.010		mg/5g		601	8E - 666

Lab Sample ID: 280-95013-1 MS
Matrix: Solid
Analysis Batch: 366535

Client Sample ID: RC4-EX-15-0.25
Prep Type: Total/NA
Prep Batch: 366409
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.029		0.084	0.086		mg/5g	✱	91	8E - 666

Lab Sample ID: 280-95013-1 MSD
Matrix: Solid
Analysis Batch: 366535

Client Sample ID: RC4-EX-15-0.25
Prep Type: Total/NA
Prep Batch: 366409
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.029		0.09K	0.090		mg/5g	✱	91	8E - 666	2	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 490-415453/1-A
Matrix: Solid
Analysis Batch: 416480

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 415453

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, Hex	3D		K.9	2.0	mg/5g		01/22/6E 69:20	01/22/6E 21:60	6

Lab Sample ID: LCS1 490-415453/3-A
Matrix: Solid
Analysis Batch: 416480

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 415453
%Rec.

Analyte	Spike Added	LCS1 Result	LCS1 Qualifier	Unit	D	%Rec	Limits
Chromium, Hex	8K.4	82.K		mg/5g		9E	80 - 620

Lab Sample ID: LCSS 490-415453/2-A
Matrix: Solid
Analysis Batch: 416480

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 415453
%Rec.

Analyte	Spike Added	LCSS Result	LCSS Qualifier	Unit	D	%Rec	Limits
Chromium, Hex	19.9	18.1		mg/5g		98	80 - 620

Lab Sample ID: LCSSD 490-415453/4-A
Matrix: Solid
Analysis Batch: 416480

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 415453
%Rec.

Analyte	Spike Added	LCSSD Result	LCSSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chromium, Hex	19.8	18.8		mg/5g		98	80 - 620	6	20

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-6

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 280-95013-1 MSI

Matrix: Solid

Analysis Batch: 416480

Client Sample ID: RC4-EX-15-0.25

Prep Type: Total/NA

Prep Batch: 415453

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	Limits
C7romium, 7ex	2.2	J	&E.6	E2.8		mg/5g	✱	604	E4 - 624

Lab Sample ID: 280-95013-1 MSS

Matrix: Solid

Analysis Batch: 416480

Client Sample ID: RC4-EX-15-0.25

Prep Type: Total/NA

Prep Batch: 415453

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	Limits
C7romium, 7ex	2.2	J	K6.1	1&8		mg/5g	✱	8K	E4 - 624

Lab Sample ID: 280-95013-1 DU

Matrix: Solid

Analysis Batch: 416480

Client Sample ID: RC4-EX-15-0.25

Prep Type: Total/NA

Prep Batch: 415453

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
C7romium, 7ex	2.2	J	2.K&	J	mg/5g	✱	9	20

Method: 9045D - pH

Lab Sample ID: LCS 280-366389/11-A

Matrix: Solid

Analysis Batch: 366748

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
pH a) j. to 24) eg C	E.00	E.0		SU		600	9E - 601

Method: 9050A - Specific Conductance

Lab Sample ID: 280-95013-1 DU

Matrix: Solid

Analysis Batch: 417511

Client Sample ID: RC4-EX-15-0.25

Prep Type: Soluble

Prep Batch: 416371

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
hlectrical Con) ultiNty	E.0		E.00		mm7os/cm		0.6	60

Method: Moisture - Percent Moisture

Lab Sample ID: 280-95013-1 DU

Matrix: Solid

Analysis Batch: 366177

Client Sample ID: RC4-EX-15-0.25

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Percent Goisture	K.4		K.K		%		0.9	20
Percent Soli)s	94.4		94.&		%		0	20

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95013-1

GC/MS VOA

Prep Batch: 366274

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Total/NA	Solid	5030A	
280-95013-2	RC4-EX-16-0.25	Total/NA	Solid	5030A	
280-95013-3	RC4-EX-17-0.25	Total/NA	Solid	5030A	
MB 280-366274/1-A	Method Blank	Total/NA	Solid	5030A	
LCS 280-366274/2-A	Lab Control Sample	Total/NA	Solid	5030A	
280-95013-1 MS	RC4-EX-15-0.25	Total/NA	Solid	5030A	
280-95013-1 MSD	RC4-EX-15-0.25	Total/NA	Solid	5030A	

Analysis Batch: 366420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Total/NA	Solid	8260B	366274
280-95013-2	RC4-EX-16-0.25	Total/NA	Solid	8260B	366274
280-95013-3	RC4-EX-17-0.25	Total/NA	Solid	8260B	366274
MB 280-366274/1-A	Method Blank	Total/NA	Solid	8260B	366274
LCS 280-366274/2-A	Lab Control Sample	Total/NA	Solid	8260B	366274
280-95013-1 MS	RC4-EX-15-0.25	Total/NA	Solid	8260B	366274
280-95013-1 MSD	RC4-EX-15-0.25	Total/NA	Solid	8260B	366274

GC/MS Semi VOA

Prep Batch: 366214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Total/NA	Solid	3546	
280-95013-2	RC4-EX-16-0.25	Total/NA	Solid	3546	
280-95013-3	RC4-EX-17-0.25	Total/NA	Solid	3546	
MB 280-366214/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-366214/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 280-366214/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Analysis Batch: 366714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Total/NA	Solid	8270D SIM	366214
280-95013-2	RC4-EX-16-0.25	Total/NA	Solid	8270D SIM	366214
280-95013-3	RC4-EX-17-0.25	Total/NA	Solid	8270D SIM	366214
MB 280-366214/1-A	Method Blank	Total/NA	Solid	8270D SIM	366214
LCS 280-366214/2-A	Lab Control Sample	Total/NA	Solid	8270D SIM	366214
LCSD 280-366214/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D SIM	366214

GC VOA

Prep Batch: 366223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Total/NA	Solid	5030A	
280-95013-2	RC4-EX-16-0.25	Total/NA	Solid	5030A	
280-95013-3	RC4-EX-17-0.25	Total/NA	Solid	5030A	
MB 280-366223/1-A	Method Blank	Total/NA	Solid	5030A	
LCS 280-366223/2-A	Lab Control Sample	Total/NA	Solid	5030A	

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95013-1

GC VOA (Continued)

Analysis Batch: 366270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Total/NA	Solid	8015C	366223
MB 280-366223/1-A	Method Blank	Total/NA	Solid	8015C	366223
LCS 280-366223/2-A	Lab Control Sample	Total/NA	Solid	8015C	366223

Analysis Batch: 366439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-2	RC4-EX-16-0.25	Total/NA	Solid	8015C	366223
280-95013-3	RC4-EX-17-0.25	Total/NA	Solid	8015C	366223

Prep Batch: 367288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1 - RE	RC4-EX-15-0.25	Total/NA	Solid	5030A	
280-95013-2 - RE	RC4-EX-16-0.25	Total/NA	Solid	5030A	
280-95013-3 - RE	RC4-EX-17-0.25	Total/NA	Solid	5030A	
MB 280-367288/1-A	Method Blank	Total/NA	Solid	5030A	
LCS 280-367288/2-A	Lab Control Sample	Total/NA	Solid	5030A	

Analysis Batch: 367319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1 - RE	RC4-EX-15-0.25	Total/NA	Solid	8015C	367288
280-95013-2 - RE	RC4-EX-16-0.25	Total/NA	Solid	8015C	367288
280-95013-3 - RE	RC4-EX-17-0.25	Total/NA	Solid	8015C	367288
MB 280-367288/1-A	Method Blank	Total/NA	Solid	8015C	367288
LCS 280-367288/2-A	Lab Control Sample	Total/NA	Solid	8015C	367288

GC Semi VOA

Prep Batch: 366197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Total/NA	Solid	3546	
280-95013-2	RC4-EX-16-0.25	Total/NA	Solid	3546	
280-95013-3	RC4-EX-17-0.25	Total/NA	Solid	3546	
MB 280-366197/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-366197/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 366278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Total/NA	Solid	8015C	366197
280-95013-2	RC4-EX-16-0.25	Total/NA	Solid	8015C	366197
280-95013-3	RC4-EX-17-0.25	Total/NA	Solid	8015C	366197
MB 280-366197/1-A	Method Blank	Total/NA	Solid	8015C	366197
LCS 280-366197/2-A	Lab Control Sample	Total/NA	Solid	8015C	366197

Prep Batch: 367209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1 - RE	RC4-EX-15-0.25	Total/NA	Solid	3546	
280-95013-2 - RE	RC4-EX-16-0.25	Total/NA	Solid	3546	
280-95013-3 - RE	RC4-EX-17-0.25	Total/NA	Solid	3546	
MB 280-367209/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-367209/2-A	Lab Control Sample	Total/NA	Solid	3546	

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95013-1

GC Semi VOA (Continued)

Analysis Batch: 367451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1 - RE	RC4-EX-15-0.25	Total/NA	Solid	8015C	367209
280-95013-2 - RE	RC4-EX-16-0.25	Total/NA	Solid	8015C	367209
MB 280-367209/1-A	Method Blank	Total/NA	Solid	8015C	367209
LCS 280-367209/2-A	Lab Control Sample	Total/NA	Solid	8015C	367209

Analysis Batch: 367797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-3 - RE	RC4-EX-17-0.25	Total/NA	Solid	8015C	367209

Metals

Prep Batch: 366216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Total/NA	Solid	3050B	
280-95013-2	RC4-EX-16-0.25	Total/NA	Solid	3050B	
280-95013-3	RC4-EX-17-0.25	Total/NA	Solid	3050B	
MB 280-366216/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 280-366216/2-A	Lab Control Sample	Total/NA	Solid	3050B	
280-95013-1 MS	RC4-EX-15-0.25	Total/NA	Solid	3050B	
280-95013-1 MSD	RC4-EX-15-0.25	Total/NA	Solid	3050B	

Prep Batch: 366217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Total/NA	Solid	3050B	
280-95013-2	RC4-EX-16-0.25	Total/NA	Solid	3050B	
280-95013-3	RC4-EX-17-0.25	Total/NA	Solid	3050B	
MB 280-366217/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 280-366217/2-A	Lab Control Sample	Total/NA	Solid	3050B	
280-95013-1 MS	RC4-EX-15-0.25	Total/NA	Solid	3050B	
280-95013-1 MSD	RC4-EX-15-0.25	Total/NA	Solid	3050B	

Prep Batch: 366218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Soluble	Solid	20B	
280-95013-2	RC4-EX-16-0.25	Soluble	Solid	20B	
280-95013-3	RC4-EX-17-0.25	Soluble	Solid	20B	
MB 280-366218/1-A	Method Blank	Soluble	Solid	20B	
280-95013-2 DU	RC4-EX-16-0.25	Soluble	Solid	20B	

Prep Batch: 366409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Total/NA	Solid	7471A	
280-95013-2	RC4-EX-16-0.25	Total/NA	Solid	7471A	
280-95013-3	RC4-EX-17-0.25	Total/NA	Solid	7471A	
MB 280-366409/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 280-366409/2-A	Lab Control Sample	Total/NA	Solid	7471A	
280-95013-1 MS	RC4-EX-15-0.25	Total/NA	Solid	7471A	
280-95013-1 MSD	RC4-EX-15-0.25	Total/NA	Solid	7471A	

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95013-1

Metals (Continued)

Analysis Batch: 366527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Total/NA	Solid	6010C	366216
280-95013-2	RC4-EX-16-0.25	Total/NA	Solid	6010C	366216
280-95013-3	RC4-EX-17-0.25	Total/NA	Solid	6010C	366216
MB 280-366216/1-A	Method Blank	Total/NA	Solid	6010C	366216
LCS 280-366216/2-A	Lab Control Sample	Total/NA	Solid	6010C	366216
280-95013-1 MS	RC4-EX-15-0.25	Total/NA	Solid	6010C	366216
280-95013-1 MSD	RC4-EX-15-0.25	Total/NA	Solid	6010C	366216

Analysis Batch: 366535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Total/NA	Solid	7471A	366409
280-95013-2	RC4-EX-16-0.25	Total/NA	Solid	7471A	366409
280-95013-3	RC4-EX-17-0.25	Total/NA	Solid	7471A	366409
MB 280-366409/1-A	Method Blank	Total/NA	Solid	7471A	366409
LCS 280-366409/2-A	Lab Control Sample	Total/NA	Solid	7471A	366409
280-95013-1 MS	RC4-EX-15-0.25	Total/NA	Solid	7471A	366409
280-95013-1 MSD	RC4-EX-15-0.25	Total/NA	Solid	7471A	366409

Analysis Batch: 366536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Total/NA	Solid	6020A	366217
280-95013-2	RC4-EX-16-0.25	Total/NA	Solid	6020A	366217
280-95013-3	RC4-EX-17-0.25	Total/NA	Solid	6020A	366217
MB 280-366217/1-A	Method Blank	Total/NA	Solid	6020A	366217
LCS 280-366217/2-A	Lab Control Sample	Total/NA	Solid	6020A	366217
280-95013-1 MS	RC4-EX-15-0.25	Total/NA	Solid	6020A	366217
280-95013-1 MSD	RC4-EX-15-0.25	Total/NA	Solid	6020A	366217

Analysis Batch: 366681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Soluble	Solid	20B	366218
280-95013-2	RC4-EX-16-0.25	Soluble	Solid	20B	366218
280-95013-3	RC4-EX-17-0.25	Soluble	Solid	20B	366218
MB 280-366218/1-A	Method Blank	Soluble	Solid	20B	366218
280-95013-2 DU	RC4-EX-16-0.25	Soluble	Solid	20B	366218

General Chemistry

Analysis Batch: 366177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Total/NA	Solid	Moisture	
280-95013-2	RC4-EX-16-0.25	Total/NA	Solid	Moisture	
280-95013-3	RC4-EX-17-0.25	Total/NA	Solid	Moisture	
280-95013-1 DU	RC4-EX-15-0.25	Total/NA	Solid	Moisture	

Leach Batch: 366389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Soluble	Solid	DI Leach	
280-95013-2	RC4-EX-16-0.25	Soluble	Solid	DI Leach	
280-95013-3	RC4-EX-17-0.25	Soluble	Solid	DI Leach	

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95013-1

General Chemistry (Continued)

Leach Batch: 366389 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-366389/11-A	Lab Control Sample	Soluble	Solid	DI Leach	

Analysis Batch: 366748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Soluble	Solid	9045D	366389
280-95013-2	RC4-EX-16-0.25	Soluble	Solid	9045D	366389
280-95013-3	RC4-EX-17-0.25	Soluble	Solid	9045D	366389
LCS 280-366389/11-A	Lab Control Sample	Soluble	Solid	9045D	366389

Prep Batch: 415453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Total/NA	Solid	3060A	
280-95013-2	RC4-EX-16-0.25	Total/NA	Solid	3060A	
280-95013-3	RC4-EX-17-0.25	Total/NA	Solid	3060A	
MB 490-415453/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 490-415453/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSS 490-415453/2-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSD 490-415453/4-A	Lab Control Sample Dup	Total/NA	Solid	3060A	
280-95013-1 MSI	RC4-EX-15-0.25	Total/NA	Solid	3060A	
280-95013-1 MSS	RC4-EX-15-0.25	Total/NA	Solid	3060A	
280-95013-1 DU	RC4-EX-15-0.25	Total/NA	Solid	3060A	

Prep Batch: 416371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Soluble	Solid	Sat Paste Ext	
280-95013-2	RC4-EX-16-0.25	Soluble	Solid	Sat Paste Ext	
280-95013-3	RC4-EX-17-0.25	Soluble	Solid	Sat Paste Ext	
280-95013-1 DU	RC4-EX-15-0.25	Soluble	Solid	Sat Paste Ext	

Analysis Batch: 416480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Total/NA	Solid	7196A	415453
280-95013-2	RC4-EX-16-0.25	Total/NA	Solid	7196A	415453
280-95013-3	RC4-EX-17-0.25	Total/NA	Solid	7196A	415453
MB 490-415453/1-A	Method Blank	Total/NA	Solid	7196A	415453
LCSI 490-415453/3-A	Lab Control Sample	Total/NA	Solid	7196A	415453
LCSS 490-415453/2-A	Lab Control Sample	Total/NA	Solid	7196A	415453
LCSSD 490-415453/4-A	Lab Control Sample Dup	Total/NA	Solid	7196A	415453
280-95013-1 MSI	RC4-EX-15-0.25	Total/NA	Solid	7196A	415453
280-95013-1 MSS	RC4-EX-15-0.25	Total/NA	Solid	7196A	415453
280-95013-1 DU	RC4-EX-15-0.25	Total/NA	Solid	7196A	415453

Analysis Batch: 416936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Total/NA	Solid	7196A	
280-95013-2	RC4-EX-16-0.25	Total/NA	Solid	7196A	
280-95013-3	RC4-EX-17-0.25	Total/NA	Solid	7196A	

Analysis Batch: 417511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Soluble	Solid	9050A	416371

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95013-1

General Chemistry (Continued)

Analysis Batch: 417511 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-2	RC4-EX-16-0.25	Soluble	Solid	9050A	416371
280-95013-3	RC4-EX-17-0.25	Soluble	Solid	9050A	416371
LCS 490-417511/3	Lab Control Sample	Total/NA	Solid	9050A	
LCSD 490-417511/4	Lab Control Sample Dup	Total/NA	Solid	9050A	
280-95013-1 DU	RC4-EX-15-0.25	Soluble	Solid	9050A	416371

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95013-1

Client Sample ID: RC4-EX-15-0.25

Lab Sample ID: 280-95013-1

Date Collected: 03/18/17 15:00

Matrix: Solid

Date Received: 03/21/17 00:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	20B			1.0 g	50 mL	366218	03/21/17 11:23	SEJ	TAL DEN
Soluble	Analysis	20B		10			366681	03/23/17 02:10	CML	TAL DEN
Soluble	Leach	DI Leach			40.30 g	40 mL	366389	03/22/17 07:21	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	366748	03/24/17 15:47	MAS	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	416371	03/24/17 13:47	BAA	TAL NSH
Soluble	Analysis	9050A		1			417511	03/27/17 11:00	JAB	TAL NSH
Total/NA	Analysis	Moisture		1			366177	03/21/17 08:43	A1D	TAL DEN

Client Sample ID: RC4-EX-15-0.25

Lab Sample ID: 280-95013-1

Date Collected: 03/18/17 15:00

Matrix: Solid

Date Received: 03/21/17 00:00

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	5030A			4.956 g	1000 mL	366274	03/21/17 15:51	CAS	TAL DEN
Total/NA	Analysis	8260B		1	20 mL	20 mL	366420	03/21/17 19:42	JLS	TAL DEN
Total/NA	Prep	3546			30.2 g	2 mL	366214	03/21/17 12:32	JDW	TAL DEN
Total/NA	Analysis	8270D SIM		40			366714	03/24/17 19:28	KGV	TAL DEN
Total/NA	Prep	5030A			10.03 g	10 mL	366223	03/21/17 11:50	KDK	TAL DEN
Total/NA	Analysis	8015C		50	0.1 mL	5 mL	366270	03/21/17 15:32	KDK	TAL DEN
Total/NA	Prep	5030A	RE		10.23 g	10 mL	367288	03/29/17 11:52	KDK	TAL DEN
Total/NA	Analysis	8015C	RE	50	0.1 mL	5 mL	367319	03/30/17 06:14	KDK	TAL DEN
Total/NA	Prep	3546			31.2 g	4 mL	366197	03/21/17 12:14	JDW	TAL DEN
Total/NA	Analysis	8015C		10			366278	03/22/17 12:27	TEM	TAL DEN
Total/NA	Prep	3546	RE		32.2 g	8 mL	367209	03/29/17 07:59	JDW	TAL DEN
Total/NA	Analysis	8015C	RE	5			367451	03/30/17 22:10	TEM	TAL DEN
Total/NA	Prep	3050B			1.095 g	100 mL	366216	03/22/17 07:40	TEB	TAL DEN
Total/NA	Analysis	6010C		1			366527	03/22/17 17:53	CRR	TAL DEN
Total/NA	Prep	3050B			1.141 g	100 mL	366217	03/22/17 07:40	SUR	TAL DEN
Total/NA	Analysis	6020A		1			366536	03/22/17 20:24	LMT	TAL DEN
Total/NA	Prep	7471A			0.52 g	50 mL	366409	03/22/17 12:31	CDH	TAL DEN
Total/NA	Analysis	7471A		1			366535	03/22/17 22:11	CDH	TAL DEN
Total/NA	Prep	3060A			2.5652 g	500 mL	415453	03/22/17 19:20	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	416480	03/22/17 23:10	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	416936	03/22/17 23:10	BMC	TAL NSH

Client Sample ID: RC4-EX-16-0.25

Lab Sample ID: 280-95013-2

Date Collected: 03/18/17 16:20

Matrix: Solid

Date Received: 03/21/17 00:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	20B			1.0 g	50 mL	366218	03/21/17 11:23	SEJ	TAL DEN
Soluble	Analysis	20B		10			366681	03/23/17 02:25	CML	TAL DEN
Soluble	Leach	DI Leach			40.44 g	40 mL	366389	03/22/17 07:21	IEU	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95013-1

Client Sample ID: RC4-EX-16-0.25

Lab Sample ID: 280-95013-2

Date Collected: 03/18/17 16:20

Matrix: Solid

Date Received: 03/21/17 00:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Analysis	9045D		1	1 mL	1 mL	366748	03/24/17 15:53	MAS	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	416371	03/24/17 13:47	BAA	TAL NSH
Soluble	Analysis	9050A		1			417511	03/27/17 11:00	JAB	TAL NSH
Total/NA	Analysis	Moisture		1			366177	03/21/17 08:43	A1D	TAL DEN

Client Sample ID: RC4-EX-16-0.25

Lab Sample ID: 280-95013-2

Date Collected: 03/18/17 16:20

Matrix: Solid

Date Received: 03/21/17 00:00

Percent Solids: 86.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			4.968 g	1000 mL	366274	03/21/17 15:51	CAS	TAL DEN
Total/NA	Analysis	8260B		1	20 mL	20 mL	366420	03/21/17 20:21	JLS	TAL DEN
Total/NA	Prep	3546			30.8 g	1 mL	366214	03/21/17 12:32	JDW	TAL DEN
Total/NA	Analysis	8270D SIM		40			366714	03/24/17 19:53	KGW	TAL DEN
Total/NA	Prep	5030A			10.15 g	10 mL	366223	03/21/17 11:50	KDK	TAL DEN
Total/NA	Analysis	8015C		10	0.1 mL	5 mL	366439	03/22/17 11:32	TEM	TAL DEN
Total/NA	Prep	5030A	RE		10.11 g	10 mL	367288	03/29/17 11:52	KDK	TAL DEN
Total/NA	Analysis	8015C	RE	10	0.1 mL	5 mL	367319	03/30/17 06:39	KDK	TAL DEN
Total/NA	Prep	3546			30.0 g	4 mL	366197	03/21/17 12:14	JDW	TAL DEN
Total/NA	Analysis	8015C		2			366278	03/22/17 11:29	TEM	TAL DEN
Total/NA	Prep	3546	RE		30.5 g	1 mL	367209	03/29/17 07:59	JDW	TAL DEN
Total/NA	Analysis	8015C	RE	10			367451	03/30/17 22:35	TEM	TAL DEN
Total/NA	Prep	3050B			1.109 g	100 mL	366216	03/22/17 07:40	TEB	TAL DEN
Total/NA	Analysis	6010C		1			366527	03/22/17 18:05	CRR	TAL DEN
Total/NA	Prep	3050B			1.081 g	100 mL	366217	03/22/17 07:40	SUR	TAL DEN
Total/NA	Analysis	6020A		1			366536	03/22/17 20:42	LMT	TAL DEN
Total/NA	Prep	7471A			0.57 g	50 mL	366409	03/22/17 12:31	CDH	TAL DEN
Total/NA	Analysis	7471A		1			366535	03/22/17 22:18	CDH	TAL DEN
Total/NA	Prep	3060A			2.5211 g	500 mL	415453	03/22/17 19:20	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	416480	03/22/17 23:10	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	416936	03/22/17 23:10	BMC	TAL NSH

Client Sample ID: RC4-EX-17-0.25

Lab Sample ID: 280-95013-3

Date Collected: 03/19/17 14:40

Matrix: Solid

Date Received: 03/21/17 00:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	20B			1.0 g	50 mL	366218	03/21/17 11:23	SEJ	TAL DEN
Soluble	Analysis	20B		10			366681	03/23/17 02:33	CML	TAL DEN
Soluble	Leach	DI Leach			40.16 g	40 mL	366389	03/22/17 07:21	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	366748	03/24/17 15:53	MAS	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	416371	03/24/17 13:47	BAA	TAL NSH
Soluble	Analysis	9050A		1			417511	03/27/17 11:00	JAB	TAL NSH

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95013-1

Client Sample ID: RC4-EX-17-0.25

Lab Sample ID: 280-95013-3

Date Collected: 03/19/17 14:40

Matrix: Solid

Date Received: 03/21/17 00:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			366177	03/21/17 08:43	A1D	TAL DEN

Client Sample ID: RC4-EX-17-0.25

Lab Sample ID: 280-95013-3

Date Collected: 03/19/17 14:40

Matrix: Solid

Date Received: 03/21/17 00:00

Percent Solids: 90.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			5.034 g	1000 mL	366274	03/21/17 15:51	CAS	TAL DEN
Total/NA	Analysis	8260B		1	20 mL	20 mL	366420	03/21/17 20:40	JLS	TAL DEN
Total/NA	Prep	3546			30.5 g	1 mL	366214	03/21/17 12:32	JDW	TAL DEN
Total/NA	Analysis	8270D SIM		40			366714	03/24/17 20:45	KGV	TAL DEN
Total/NA	Prep	5030A			9.86 g	10 mL	366223	03/21/17 11:50	KDK	TAL DEN
Total/NA	Analysis	8015C		20	0.1 mL	5 mL	366439	03/22/17 12:08	TEM	TAL DEN
Total/NA	Prep	5030A	RE		10.04 g	10 mL	367288	03/29/17 11:52	KDK	TAL DEN
Total/NA	Analysis	8015C	RE	20	0.1 mL	5 mL	367319	03/30/17 07:04	KDK	TAL DEN
Total/NA	Prep	3546			31.3 g	5 mL	366197	03/21/17 12:14	JDW	TAL DEN
Total/NA	Analysis	8015C		5			366278	03/22/17 11:58	TEM	TAL DEN
Total/NA	Prep	3546	RE		30.6 g	1 mL	367209	03/29/17 07:59	JDW	TAL DEN
Total/NA	Analysis	8015C	RE	5			367797	04/03/17 12:14	TEM	TAL DEN
Total/NA	Prep	3050B			1.336 g	100 mL	366216	03/22/17 07:40	TEB	TAL DEN
Total/NA	Analysis	6010C		1			366527	03/22/17 18:08	CRR	TAL DEN
Total/NA	Prep	3050B			1.045 g	100 mL	366217	03/22/17 07:40	SUR	TAL DEN
Total/NA	Analysis	6020A		1			366536	03/22/17 20:46	LMT	TAL DEN
Total/NA	Prep	7471A			0.50 g	50 mL	366409	03/22/17 12:31	CDH	TAL DEN
Total/NA	Analysis	7471A		1			366535	03/22/17 22:20	CDH	TAL DEN
Total/NA	Prep	3060A			2.5593 g	500 mL	415453	03/22/17 19:20	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	416480	03/22/17 23:10	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	416936	03/22/17 23:10	BMC	TAL NSH

Laboratory References:

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

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TestAmerica Denver

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-6

Laboratory: TestAmerica Denver

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
A2LA	DoD ELAP		2907.06	60-16-67
A2LA	ISO/IEC 67024		2907.06	60-16-67
Alabama	State Program	3	30710	09-10-62 5
Alaska STU	State Program	60	(ST-10	03-04-68
Arizona	State Program	9	Az0761	62-20-67
Arkansas DEZ	State Program	Q	88-0Q87	0Q06-67
California	State Program	9	2461	06-08-68 5
Connecticut	State Program	6	PH-0Q8Q	09-10-68
Florida	NELAP	3	E87Q07	0Q10-67
Georgia	State Program	3	N/A	06-08-68
Illinois	NELAP	4	200067	03-10-68
Iowa	State Program	7	170	62-06-68 5
Kansas	NELAP	7	E-606QQ	03-10-67 5
Louisiana	NELAP	Q	0209Q	0Q10-67
Maine	State Program	6	CO0002	01-01-69
Minnesota	NELAP	4	8-999-304	62-16-67 5
Nevada	State Program	9	CO002Q	07-16-67
New Hampshire	NELAP	6	204160	03-28-67
New Jersey	NELAP	2	CO003	0Q10-67
New York	NELAP	2	669Q8	03-06-68
North Carolina KWW/SWU	State Program	3	148	62-16-67
North Dakota	State Program	8	R-013	06-09-68
Oklahoma	State Program	Q	8Q83	08-16-67
Oregon	NELAP	60	3024	06-08-68
Pennsylvania	NELAP	1	Q8-00Q8	07-16-67
South Carolina	State Program	3	72002006	06-09-67 5
Texas	NELAP	Q	T603703681-6Q62	09-10-67
(SDA	Federal		P110-6Q00197	62-64-69
(tah	NELAP	8	CO0002Q	07-16-67
Virginia	NELAP	1	3Q212	0Q63-67
Washington	State Program	60	C481	08-02-67
West Virginia DEP	State Program	1	143	66-10-67
Wisconsin	State Program	4	999Q64310	08-16-67
Wyoming K STU	A2LA	8	2907.06	60-16-67

Laboratory: TestAmerica Nashville

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
A2LA	A2LA		NA: NELAP & A2LA	62-16-67
A2LA	ISO/IEC 67024		0341.07	62-16-67
Alaska STU	State Program	60	(ST-087	07-23-67
Arizona	State Program	9	Az0371	04-04-67
Arkansas DEZ	State Program	Q	88-0717	03-24-67
California	State Program	9	2918	60-16-68
Connecticut	State Program	6	PH-0220	62-16-67
Florida	NELAP	3	E87148	0Q10-67
Georgia	State Program	3	N/A	62-16-67
Illinois	NELAP	4	200060	62-09-67
Iowa	State Program	7	616	03-06-68

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

TestAmerica Denver

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-6

Laboratory: TestAmerica Nashville (Continued)

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
Kansas	NELAP	7	E-60229	60-16-67
Kentucky k STU	State Program	3	69	0Q-10-67
Kentucky kWWU	State Program	3	90018	62-16-67
Louisiana	NELAP	Q	10Q61	0Q-10-67
Maine	State Program	6	TN00012	66-01-67
Maryland	State Program	1	16Q	01-16-68
Massachusetts	State Program	6	M-TN012	0Q-10-67
Minnesota	NELAP	4	037-999-134	62-16-67
Mississippi	State Program	3	N/A	0Q-10-67
Montana k STU	State Program	8	NA	02-23-20
Nevada	State Program	9	TN00012	07-16-67
New Hampshire	NELAP	6	29Q1	60-09-67
New Jersey	NELAP	2	TN9Q4	0Q-10-67
New York*	NELAP	2	66132	01-16-67 5
North Carolina kWW/SWU	State Program	3	187	62-16-67
North Dakota	State Program	8	R-63Q	0Q-10-67
Ohio VAP	State Program	4	CL0011	07-60-67
Oklahoma	State Program	Q	9362	08-16-67
Oregon	NELAP	60	TN200006	03-27-67
Pennsylvania	NELAP	1	Q8-00484	0Q-10-67
Rhode Island	State Program	6	LAO002Q8	62-10-67
South Carolina	State Program	3	83009 k006U	02-68-67 5
South Carolina kDo Not (se - DWU	State Program	3	83009 k002U	62-6Q-67
Tennessee	State Program	3	2008	02-21-20
Texas	NELAP	Q	T603703077	08-16-67
(SDA	Federal		P110-61-0010Q	62-06-69
(tah	NELAP	8	TN00012	07-16-67
Virginia	NELAP	1	3Q0642	0Q-63-67
Washington	State Program	60	C789	07-69-67
West Virginia DEP	State Program	1	269	02-28-68
Wisconsin	State Program	4	998020310	08-16-67
Wyoming k STU	A2LA	8	341.07	62-16-67

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

TestAmerica Denver



THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM



280-95013 Chain of Custody

Cooler Received/Opened On 3-22-17 @ 0940

Time Samples Removed From Cooler 1118 Time Samples Placed In Storage 1200 (2 Hour Window)

1. Tracking # 7345 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 17960353 pH Strip Lot HC695560 Chlorine Strip Lot 110116E

2. Temperature of rep. sample or temp blank when opened: 3.8 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) HKG

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES NO NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES NO NA If multiple coolers, sequence # PNI

I certify that I unloaded the cooler and answered questions 7-14 (initial) PNI

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO. NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) PNI

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) PNI

I certify that I attached a label with the unique LIMS number to each container (initial) PNI

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO

TestAmerica Denver

4955 Yarrow Street
Anvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

Loc: 280
95013

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab) Client Contact: _____ Shipping/Receiving: _____ Company: TestAmerica Laboratories, Inc. Address: 2960 Foster Creighton Drive, City: Nashville State, Zip: TN, 37204 Phone: 615-726-0177(Tel) 615-726-3404(Fax) Email: _____ Project Name: Stantec CVX - Rangely, CO Site: _____		Sampler: Lab PM: Joe, Jamie N Phone: E-Mail: jamie.ide@testamericainc.com Accreditations Required (See note): _____		COC No: 280-391374.1 Page: Page 1 of 1 Job #: 280-95013-1	
Due Date Requested: 3/24/2017 TAT Requested (days): _____		Analysis Requested Preservation Codes: A - HCl B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: _____ M - Hexane N - None O - AsNaO2 P - Na2O2S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (Specify)			
Sample Date 3/18/17 3/18/17 3/19/17		Sample Time 15:00 Mountain 16:20 Mountain 14:40 Mountain		Sample Type (C=comp, G=grab) Solid Solid Solid	
Sample ID (Lab ID) RC4-EX-15-0.25 (280-95013-1) RC4-EX-16-0.25 (280-95013-2) RC4-EX-17-0.25 (280-95013-3)		Matrix (Water, Preservative, Other) Solid Solid Solid		Field Filtered Sample (Yes or No) X X X	
Perform MS/MSD (Yes or No) X X X		7196A CR3/ Trivalent Chromium (Cr(III)) X X X		7196A/3080A Hexavalent Chromium (Cr(VI)) X X X	
9050A/Sa/Paste Prep Electrical Conductivity X X X		Total Number of Containers 2 2 2		Special Instructions/Note: _____ _____ _____	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2 Empty Kit Relinquished by: _____ Relinquished by: <i>Chanda Cue</i> Date/Time: 3/21/17 1500 Relinquished by: _____ Date/Time: _____ Relinquished by: _____ Date/Time: _____ Custody Seals Intact: _____ A Yes A No		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements: _____ Method of Shipment: _____ Date/Time: 3.8 3/22/17-9013-AN Relinquished by: _____ Date/Time: _____ Relinquished by: _____ Date/Time: _____ Relinquished by: _____ Date/Time: _____ Cooler Temperature(s) °C and Other Remarks: _____	
---	--	---	--

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-95013-1

Login Number: 95013

List Source: TestAmerica Denver

List Number: 1

Creator: Bieniulis, Dylan T

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 (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-95013-1

Login Number: 95013

List Number: 2

Creator: Ngo, Phiet

List Source: TestAmerica Nashville

List Creation: 03/22/17 11:59 AM

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver

4955 Yarrow Street

Arvada, CO 80002

Tel: (303)736-0100

TestAmerica Job ID: 280-95013-2

Client Project/Site: Stantec CVX - Rangely, CO

For:

Stantec Consulting Corp.

2000 South Colorado Blvd

Suite 2-300

Denver, Colorado 80222

Attn: Ms. Bethany Lucente



Authorized for release by:

4/5/2017 10:56:46 AM

Jamie Ide, Project Manager I

(303)736-0126

jamie.ide@testamericainc.com

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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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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95013-2

Qualifiers

GC Semi VOA

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

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95013-2

Job ID: 280-95013-2

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Stantec Consulting Corp.
Project: Stantec CVX - Rangely, CO
Report Number: 280-95013-2

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 on 3/21/2017 7:25 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.3° C.

The 8015C DRO with Silica gel clean up will be found in this report. All other analyses requested on the chain of custody will be reported under a separate cover (280-95013-1).

Per client instruction 4/3/17, the ORO results requested on the chain of custody were not reported/performed; because of the overlapping DRO and ORO carbon ranges, the recalculation of the DRO results may have changed since the time of release for the preliminary results given sample matrix as well as the carbon ranges in question.

DIESEL RANGE ORGANICS

Per client request on 3/27/17, the 8015C DRO was submitted for re-extraction and re-analysis. Both the original analysis and re-analysis will be found in this report.

Per client instruction 4/3/17, the ORO results were not reported; because of the overlapping DRO and ORO carbon ranges, the recalculation of the DRO results may have changed since the time of release for the preliminary results given sample matrix as well as the carbon ranges in question.

o-Terphenyl failed the surrogate recovery criteria high for RC4-EX-15-0.25 (280-95013-1), RC4-EX-16-0.25 (280-95013-2), and RC4-EX-17-0.25 (280-95013-3). 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. The surrogate recoveries are calculated from diluted samples and in some cases are diluted below reportable limits.

DRO (C10-C28) was detected in method blank MB 280-266209/1-B at a level that was above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

o-Terphenyl failed the surrogate recovery criteria high for MB 280-367025/1-B and LCS 280-367025/2-B. The associated MB was non-detect for the affected analyte, and the LCS recoveries were within control limits. This analytical batch is associated with a re-extraction, and the cleitn samples were previously analyzed with in control QC.

Due to the matrix, the following sample could not be concentrated to the final method required volume: RC4-EX-17-0.25 (280-95013-3). The reporting limits (RLs) are elevated proportionately. Adjusted volume 2 mL

Due to the matrix, the following sample could not be concentrated to the final method required volume: RC4-EX-15-0.25 (280-95013-1). The reporting limits (RLs) are elevated proportionately. Adjusted volume 5 mL

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95013-2

Job ID: 280-95013-2 (Continued)

Laboratory: TestAmerica Denver (Continued)

Due to the matrix, the following sample could not be concentrated to the final method required volume: RC4-EX-15-0.25 (280-95013-1) and RC4-EX-17-0.25 (280-95013-3). The reporting limits (RLs) are elevated proportionately. Adjusted volume 2 mL

Samples RC4-EX-15-0.25 (280-95013-1)[5X], RC4-EX-16-0.25 (280-95013-2)[10X] and RC4-EX-17-0.25 (280-95013-3)[5X] required dilution prior to analysis due to the nature of the sample matrix. The reporting limits have been adjusted accordingly.

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

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95013-2

Client Sample ID: RC4-EX-15-0.25

Lab Sample ID: 280-95013-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
DRO (C10-C28)	15000	B	81	14	mg/Kg	10		✱	8015C	Total/NA
DRO (C10-C28) - RE	25000		100	17	mg/Kg	5		✱	8015C	Total/NA

Client Sample ID: RC4-EX-16-0.25

Lab Sample ID: 280-95013-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
DRO (C10-C28)	6100	B	46	7.8	mg/Kg	10		✱	8015C	Total/NA
DRO (C10-C28) - RE	6800		46	7.8	mg/Kg	10		✱	8015C	Total/NA

Client Sample ID: RC4-EX-17-0.25

Lab Sample ID: 280-95013-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
DRO (C10-C28)	9500	B	44	7.5	mg/Kg	5		✱	8015C	Total/NA
DRO (C10-C28) - RE	9600		44	7.4	mg/Kg	5		✱	8015C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94076-2

Method	Method Description	Protocol	Laboratory
8074C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW815	TAL DEN

Protocol References:

SW815 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1985 And Its Updates.

Laboratory References:

TAL DEN = TestAmerica Denver, 1944 Yarrow Street, Arvada, CO 80002, TEL (606)365-0700

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95013-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-95013-1	RC4-EX-15-0.25	Solid	03/18/17 15:00	03/21/17 00:00
280-95013-2	RC4-EX-16-0.25	Solid	03/18/17 16:20	03/21/17 00:00
280-95013-3	RC4-EX-17-0.25	Solid	03/19/17 14:40	03/21/17 00:00

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-EX-15-0.25

Date Collected: 03/18/17 15:00

Date Received: 03/21/17 00:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	15000	B	86	65	mg/Kg	☼	01/26/63 62:65	01/23/63 65:18	60
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	8148	9 5	10 - 33/				782 326 3: X81	782 626 31X84	37

Lab Sample ID: 280-95013-1

Matrix: Solid

Percent Solids: 95.5

Client Sample ID: RC4-EX-16-0.25

Date Collected: 03/18/17 16:20

Date Received: 03/21/17 00:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	6100	B	57	3.8	mg/Kg	☼	01/26/63 62:65	01/23/63 67:04	60
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	: 88	9 5	10 - 33/				782 326 3: X81	782 626 3DX7	37

Lab Sample ID: 280-95013-2

Matrix: Solid

Percent Solids: 86.3

Client Sample ID: RC4-EX-17-0.25

Date Collected: 03/19/17 14:40

Date Received: 03/21/17 00:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	9500	B	55	3.4	mg/Kg	☼	01/26/63 62:65	01/23/63 64:17	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	3074	9 5	10 - 33/				782 326 3: X81	782 626 3/ X8D	/

Lab Sample ID: 280-95013-3

Matrix: Solid

Percent Solids: 90.4

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) - RE

Client Sample ID: RC4-EX-15-0.25

Date Collected: 03/18/17 15:00

Date Received: 03/21/17 00:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	25000		600	63	mg/Kg	☼	01/28/63 08:04	01/10/63 69:52	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	8/ 3:	9 5	10 - 33/				782 426 74X7	782 726 30X1:	/

Lab Sample ID: 280-95013-1

Matrix: Solid

Percent Solids: 95.5

Client Sample ID: RC4-EX-16-0.25

Date Collected: 03/18/17 16:20

Date Received: 03/21/17 00:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	6800		57	3.8	mg/Kg	☼	01/28/63 08:04	01/29/63 20:64	60
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	/ 1	9	10 - 33/				782 426 74X7	782 026 : 7X8/	37

Lab Sample ID: 280-95013-2

Matrix: Solid

Percent Solids: 86.3

Client Sample ID: RC4-EX-17-0.25

Date Collected: 03/19/17 14:40

Date Received: 03/21/17 00:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	9600		55	3.5	mg/Kg	☼	01/28/63 08:04	01/10/63 20:03	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	37D8	9 5	10 - 33/				782 426 74X7	782 726 : 7X6	/

Lab Sample ID: 280-95013-3

Matrix: Solid

Percent Solids: 90.4

TestAmerica Denver

Surrogate Summary

IrieSt: utaStec I oSsgntiSp I or. P
 j ro/ectWrite: utaStec I XR - y aSpn Q 7

TestAmerica Job ID: 280-9406C-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	OTPH1 (49-115)
280-9406C-6	yI 1-HR-64-0P24	C18CD R
280-9406C-6 - y H	yI 1-HR-64-0P24	C462 D R
280-9406C-2	yI 1-HR-6E-0P24	20CD R
280-9406C-2 - y H	yI 1-HR-6E-0P24	41 D
280-9406C-C	yI 1-HR-6L-0P24	6908 D R
280-9406C-C - y H	yI 1-HR-6L-0P24	60ECD R
5I u 280-CEE209V2-3	5ab I oStronuam. re	84
5I u 280-CEL024V2-3	5ab I oStronuam. re	62CR
5I uD 280-CEE209V3-3	5ab I oStronuam. re Dg.	81
M3 280-CEE209V6-3	MetBoh 3raSd	8C
M3 280-CEL024V6-3	MetBoh 3raSd	669 R

Surrogate Legend

7 Tj k = o-Ter. BeS, n(ugrr)

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 280-366209/1-B

Matrix: Solid

Analysis Batch: 366887

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 366209

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C60-C28)	0.N99	J	K.0	0.38	mg/5g	-	01/26/6N62:6K	01/24/6N02:K6	6
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	83		49 - 115				03/21/17 12:14	03/25/17 02:41	1

Lab Sample ID: LCS 280-366209/2-B

Matrix: Solid

Analysis Batch: 366887

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 366209

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
DRO (C60-C28)	33.N	43.8		mg/5g	-	84	41 - 664		
Surrogate	%Recovery	LCS Qualifier	Limits						
o-Terphenyl (Surr)	85		49 - 115						

Lab Sample ID: LCSD 280-366209/3-B

Matrix: Solid

Analysis Batch: 366887

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 366209

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
DRO (C60-C28)	33.N	32.0		mg/5g	-	91	41 - 664	9	21
Surrogate	%Recovery	LCSD Qualifier	Limits						
o-Terphenyl (Surr)	84		49 - 115						

Lab Sample ID: MB 280-367025/1-B

Matrix: Solid

Analysis Batch: 367277

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 367025

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C60-C28)	7.D		K.0	0.38	mg/5g	-	01/28/6N08:04	01/29/6N69:06	6
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	119	X	49 - 115				03/28/17 08:05	03/29/17 19:01	1

Lab Sample ID: LCS 280-367025/2-B

Matrix: Solid

Analysis Batch: 367277

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 367025

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
DRO (C60-C28)	33.N	38.K		mg/5g	-	601	41 - 664		
Surrogate	%Recovery	LCS Qualifier	Limits						
o-Terphenyl (Surr)	123	X	49 - 115						

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95013-2

GC Semi VOA

Prep Batch: 366209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Total/NA	Solid	3546	
280-95013-2	RC4-EX-16-0.25	Total/NA	Solid	3546	
280-95013-3	RC4-EX-17-0.25	Total/NA	Solid	3546	
MB 280-366209/1-B	Method Blank	Total/NA	Solid	3546	
LCS 280-366209/2-B	Lab Control Sample	Total/NA	Solid	3546	
LCSD 280-366209/3-B	Lab Control Sample Dup	Total/NA	Solid	3546	

Cleanup Batch: 366770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Total/NA	Solid	3630M	366209
280-95013-2	RC4-EX-16-0.25	Total/NA	Solid	3630M	366209
280-95013-3	RC4-EX-17-0.25	Total/NA	Solid	3630M	366209
MB 280-366209/1-B	Method Blank	Total/NA	Solid	3630M	366209
LCS 280-366209/2-B	Lab Control Sample	Total/NA	Solid	3630M	366209
LCSD 280-366209/3-B	Lab Control Sample Dup	Total/NA	Solid	3630M	366209

Analysis Batch: 366887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-366209/1-B	Method Blank	Total/NA	Solid	8015C	366770
LCS 280-366209/2-B	Lab Control Sample	Total/NA	Solid	8015C	366770
LCSD 280-366209/3-B	Lab Control Sample Dup	Total/NA	Solid	8015C	366770

Analysis Batch: 366920

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1	RC4-EX-15-0.25	Total/NA	Solid	8015C	366770
280-95013-2	RC4-EX-16-0.25	Total/NA	Solid	8015C	366770
280-95013-3	RC4-EX-17-0.25	Total/NA	Solid	8015C	366770

Prep Batch: 367025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1 - RE	RC4-EX-15-0.25	Total/NA	Solid	3546	
280-95013-2 - RE	RC4-EX-16-0.25	Total/NA	Solid	3546	
280-95013-3 - RE	RC4-EX-17-0.25	Total/NA	Solid	3546	
MB 280-367025/1-B	Method Blank	Total/NA	Solid	3546	
LCS 280-367025/2-B	Lab Control Sample	Total/NA	Solid	3546	

Cleanup Batch: 367164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1 - RE	RC4-EX-15-0.25	Total/NA	Solid	3630M	367025
280-95013-2 - RE	RC4-EX-16-0.25	Total/NA	Solid	3630M	367025
280-95013-3 - RE	RC4-EX-17-0.25	Total/NA	Solid	3630M	367025
MB 280-367025/1-B	Method Blank	Total/NA	Solid	3630M	367025
LCS 280-367025/2-B	Lab Control Sample	Total/NA	Solid	3630M	367025

Analysis Batch: 367277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-2 - RE	RC4-EX-16-0.25	Total/NA	Solid	8015C	367164
MB 280-367025/1-B	Method Blank	Total/NA	Solid	8015C	367164
LCS 280-367025/2-B	Lab Control Sample	Total/NA	Solid	8015C	367164

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95013-2

GC Semi VOA (Continued)

Analysis Batch: 367451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95013-1 - RE	RC4-EX-15-0.25	Total/NA	Solid	8015C	367164
280-95013-3 - RE	RC4-EX-17-0.25	Total/NA	Solid	8015C	367164

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95013-2

Client Sample ID: RC4-EX-15-0.25

Date Collected: 03/18/17 15:00

Date Received: 03/21/17 00:00

Lab Sample ID: 280-95013-1

Matrix: Solid

percent SolidT: 95.5

vrep BPpe	Aatch BPpe	Aatch Method	Run	Dil Factor	Initial s mount	Final s mount	Aatch Number	vprepared or s nalPzed	s nalPTt	Lab
Total/NA	Prep	3546			31.0 g	2 mL	366209	03/21/17 12:14	JDW	TAL DEN
Total/NA	Cleanup	3630M			2 mL	2 mL	366770	03/24/17 18:45	ELV	TAL DEN
Total/NA	Analysis	8015C		10			366920	03/27/17 14:38	TEM	TAL DEN
Total/NA	Prep	3546	RE		30.7 g	5 mL	367025	03/28/17 08:05	JDW	TAL DEN
Total/NA	Cleanup	3630M	RE		5 mL	5 mL	367164	03/28/17 20:40	ELV	TAL DEN
Total/NA	Analysis	8015C	RE	5			367451	03/30/17 19:42	TEM	TAL DEN

Client Sample ID: RC4-EX-16-0.25

Date Collected: 03/18/17 16:20

Date Received: 03/21/17 00:00

Lab Sample ID: 280-95013-2

Matrix: Solid

percent SolidT: 86.3

vrep BPpe	Aatch BPpe	Aatch Method	Run	Dil Factor	Initial s mount	Final s mount	Aatch Number	vprepared or s nalPzed	s nalPTt	Lab
Total/NA	Prep	3546			30.1 g	1 mL	366209	03/21/17 12:14	JDW	TAL DEN
Total/NA	Cleanup	3630M			1 mL	1 mL	366770	03/24/17 18:45	ELV	TAL DEN
Total/NA	Analysis	8015C		10			366920	03/27/17 16:05	TEM	TAL DEN
Total/NA	Prep	3546	RE		30.1 g	1 mL	367025	03/28/17 08:05	JDW	TAL DEN
Total/NA	Cleanup	3630M	RE		1 mL	1 mL	367164	03/28/17 20:40	ELV	TAL DEN
Total/NA	Analysis	8015C	RE	10			367277	03/29/17 20:15	TEM	TAL DEN

Client Sample ID: RC4-EX-17-0.25

Date Collected: 03/19/17 14:40

Date Received: 03/21/17 00:00

Lab Sample ID: 280-95013-3

Matrix: Solid

percent SolidT: 90.4

vrep BPpe	Aatch BPpe	Aatch Method	Run	Dil Factor	Initial s mount	Final s mount	Aatch Number	vprepared or s nalPzed	s nalPTt	Lab
Total/NA	Prep	3546			30.0 g	2 mL	366209	03/21/17 12:14	JDW	TAL DEN
Total/NA	Cleanup	3630M			2 mL	2 mL	366770	03/24/17 18:45	ELV	TAL DEN
Total/NA	Analysis	8015C		5			366920	03/27/17 15:36	TEM	TAL DEN
Total/NA	Prep	3546	RE		30.3 g	2 mL	367025	03/28/17 08:05	JDW	TAL DEN
Total/NA	Cleanup	3630M	RE		2 mL	2 mL	367164	03/28/17 20:40	ELV	TAL DEN
Total/NA	Analysis	8015C	RE	5			367451	03/30/17 20:07	TEM	TAL DEN

Laboratory Reference:

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

TestAmerica Denver

Accreditation/Certification Summary

Client: Stantec Consulting Corp.

TestAmerica Job ID: 280-94061-2

Project/Site: Stantec CVX - Rangely, CO

Laboratory: TestAmerica Denver

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
A2LA	DoD ELAP		2907.06	60-16-67
A2LA	ISO/IEC 67024		2907.06	60-16-67
Alabama	State Program	3	30710	09-10-62 5
Alaska STU	State Program	60	(ST-10	03-04-68
Arizona	State Program	9	Az0761	62-20-67
Arkansas DEZ	State Program	Q	88-0Q87	0Q06-67
California	State Program	9	2461	06-08-68 5
Connecticut	State Program	6	PH-0Q8Q	09-10-68
Florida	NELAP	3	E87Q07	0Q10-67
Georgia	State Program	3	N/A	06-08-68
Illinois	NELAP	4	200067	03-10-68
Iowa	State Program	7	170	62-06-68 5
Kansas	NELAP	7	E-606Q0	03-10-67 5
Louisiana	NELAP	Q	0209Q	0Q10-67
Maine	State Program	6	CO0002	01-01-69
Minnesota	NELAP	4	8-999-304	62-16-67 5
Nevada	State Program	9	CO002Q	07-16-67
New Hampshire	NELAP	6	204160	03-28-67
New Jersey	NELAP	2	CO003	0Q10-67
New York	NELAP	2	669Q8	03-06-68
North Carolina KWW/SWU	State Program	3	148	62-16-67
North Dakota	State Program	8	R-013	06-09-68
Oklahoma	State Program	Q	8Q83	08-16-67
Oregon	NELAP	60	3024	06-08-68
Pennsylvania	NELAP	1	Q8-00Q08	07-16-67
South Carolina	State Program	3	72002006	06-09-67 5
Texas	NELAP	Q	T603703681-6Q62	09-10-67
(SDA	Federal		P110-6Q00197	62-64-69
(tah	NELAP	8	CO0002Q	07-16-67
Virginia	NELAP	1	3Q0212	0Q63-67
Washington	State Program	60	C481	08-02-67
West Virginia DEP	State Program	1	143	66-10-67
Wisconsin	State Program	4	999Q64310	08-16-67
Wyoming K STU	A2LA	8	2907.06	60-16-67

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

TestAmerica Denver

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-95013-2

Login Number: 95013

List Source: TestAmerica Denver

List Number: 1

Creator: Bieniulis, Dylan T

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 (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver

4955 Yarrow Street

Arvada, CO 80002

Tel: (303)736-0100

TestAmerica Job ID: 280-95014-1

Client Project/Site: Stantec CVX - Rangely, CO

Revision: 1

For:

Stantec Consulting Corp.

2000 South Colorado Blvd

Suite 2-300

Denver, Colorado 80222

Attn: Ms. Bethany Lucente



Authorized for release by:

4/5/2017 4:36:44 PM

Jamie Ide, Project Manager I

(303)736-0126

jamie.ide@testamericainc.com

LINKS

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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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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95014-1

Qualifiers

GC SmV

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

GC cep i SmV

Qualifier	Qualifier Description
X	Surrogate is outside control limits
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

Glossary

Abbreviation	These are only used abbreviations that 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, 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)

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95014-1

Job ID: 280-95014-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Stantec Consulting Corp.
Project: Stantec CVX - Rangely, CO
Report Number: 280-95014-1

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.

REVISION - 4/5/17

Per client request 3/31/17, the ORO originally requested on the chain of custody was removed from the analytical report.

RECEIPT

The samples were received on 3/21/2017 7:25 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.3° C.

GASOLINE RANGE ORGANICS (GRO)

a,a,a-Trifluorotoluene failed the surrogate recovery criteria high for RC4-SC-18 (280-95014-1). a,a,a-Trifluorotoluene failed the surrogate recovery criteria high for RC4-SC-19 (280-95014-2). Refer to the QC report for details.

Samples RC4-SC-18 (280-95014-1)[10X], RC4-SC-19 (280-95014-2)[50X], RC4-SC-20 (280-95014-3)[5X] and RC4-SC-28 (280-95014-11)[5X] required dilution prior to analysis due to the nature of the sample matrix. The reporting limits have been adjusted accordingly.

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

DIESEL RANGE ORGANICS

o-Terphenyl failed the surrogate recovery criteria high for RC4-SC-18 (280-95014-1), RC4-SC-28 (280-95014-11), RC4-SC-29 (280-95014-12), RC4-SC-19 (280-95014-2), RC4-SC-20 (280-95014-3), RC4-SC-21 (280-95014-4), RC4-SC-22 (280-95014-5), RC4-SC-19MS (280-95014-2MS), and for RC4-SC-19MSD (280-95014-2MSD). Evidence of matrix interference is present; therefore, corrective action was not performed.

The initial aliquot and surrogate aliquot used for extraction of the following samples was split between two extraction vessels with the routine volume of solvent added to each vessel: RC4-SC-21 (280-95014-4), RC4-SC-26 (280-95014-9), RC4-SC-27 (280-95014-10), RC4-SC-28 (280-95014-11) and RC4-SC-29 (280-95014-12). After the extraction, the extracts from both vessels were combined and concentrated. This was done due to sample matrix being especially wet; sample aliquot could not fit in one tube with sufficient room for solvent.

The following samples could not be thoroughly homogenized before sub-sampling was performed due to sample matrix: RC4-SC-24 (280-95014-7), RC4-SC-25 (280-95014-8) and RC4-SC-26 (280-95014-9). The sample was Clay.

The following samples could not be thoroughly homogenized before sub-sampling was performed due to sample matrix: RC4-SC-21 (280-95014-4), RC4-SC-26 (280-95014-9), RC4-SC-27 (280-95014-10), RC4-SC-28 (280-95014-11) and RC4-SC-29 (280-95014-12). The sample was in standing water.

The MS/MSD performed on sample RC4-SC-19 (280-95014-2) exhibited spike recoveries outside QC control limits for DRO (C10-C28).

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95014-1

Job ID: 280-95014-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

The associated LCS was in control and demonstrates that operating procedures were in control. No further action was required.

Samples RC4-SC-18 (280-95014-1)[2X], RC4-SC-19 (280-95014-2)[5X], RC4-SC-20 (280-95014-3)[5X] and RC4-SC-28 (280-95014-11) [2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Due to the matrix, the following samples could not be concentrated to the final method required volume: RC4-SC-18 (280-95014-1), RC4-SC-19 (280-95014-2), RC4-SC-28 (280-95014-11), (280-95014-A-2 MS) and (280-95014-A-2 MSD). The reporting limits (RLs) are elevated proportionately.

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

PERCENT SOLIDS

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

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95014-1

Client Sample ID: RC4-SC-18

Lab Sample ID: 280-95014-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	170		14	3.8	mg/Kg	10	☼	8015C	Total/NA
DRO (C10-C28)	15000		93	16	mg/Kg	2	☼	8015C	Total/NA

Client Sample ID: RC4-SC-19

Lab Sample ID: 280-95014-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	590		68	18	mg/Kg	50	☼	8015C	Total/NA
DRO (C10-C28)	50000		220	38	mg/Kg	5	☼	8015C	Total/NA

Client Sample ID: RC4-SC-20

Lab Sample ID: 280-95014-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	91		7.0	1.9	mg/Kg	5	☼	8015C	Total/NA
DRO (C10-C28)	2800		22	3.7	mg/Kg	5	☼	8015C	Total/NA

Client Sample ID: RC4-SC-21

Lab Sample ID: 280-95014-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	7.9		1.5	0.42	mg/Kg	1	☼	8015C	Total/NA
DRO (C10-C28)	670		4.8	0.81	mg/Kg	1	☼	8015C	Total/NA

Client Sample ID: RC4-SC-22

Lab Sample ID: 280-95014-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	22		1.4	0.38	mg/Kg	1	☼	8015C	Total/NA
DRO (C10-C28)	940		4.5	0.77	mg/Kg	1	☼	8015C	Total/NA

Client Sample ID: RC4-SC-23

Lab Sample ID: 280-95014-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	0.53	J	1.5	0.40	mg/Kg	1	☼	8015C	Total/NA
DRO (C10-C28)	160		4.9	0.83	mg/Kg	1	☼	8015C	Total/NA

Client Sample ID: RC4-SC-24

Lab Sample ID: 280-95014-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
DRO (C10-C28)	5.3		4.8	0.82	mg/Kg	1	☼	8015C	Total/NA

Client Sample ID: RC4-SC-25

Lab Sample ID: 280-95014-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	19		1.4	0.39	mg/Kg	1	☼	8015C	Total/NA
DRO (C10-C28)	770		4.8	0.82	mg/Kg	1	☼	8015C	Total/NA

Client Sample ID: RC4-SC-26

Lab Sample ID: 280-95014-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
DRO (C10-C28)	7.0		4.6	0.78	mg/Kg	1	☼	8015C	Total/NA

Client Sample ID: RC4-SC-27

Lab Sample ID: 280-95014-10

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95014-1

Client Sample ID: RC4-SC-27 (Continued)

Lab Sample ID: 280-95014-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
DRO (C10-C28)	18		5.1	0.86	mg/Kg	1		✱	8015C	Total/NA

Client Sample ID: RC4-SC-28

Lab Sample ID: 280-95014-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	57		7.1	1.9	mg/Kg	5		✱	8015C	Total/NA
DRO (C10-C28)	2500		18	3.1	mg/Kg	2		✱	8015C	Total/NA

Client Sample ID: RC4-SC-29

Lab Sample ID: 280-95014-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	38		1.7	0.47	mg/Kg	1		✱	8015C	Total/NA
DRO (C10-C28)	600		5.7	0.97	mg/Kg	1		✱	8015C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-6

Method	Method Description	Protocol	Laboratory
8064C	Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	SW815	TAL DEN
8064C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW815	TAL DEN
Moisture	Percent Moisture	EPA	TAL DEN

Protocol References:

EPA = " S Environmental Protection Agency

SW815 = UTest Methods For Evaluating Solid Waste, Physical/Chemical MethodsU Third Edition, November 6985 And Its " pdates.

Laboratory References:

TAL DEN = TestAmerica Denver, 1944 Yarrow Street, Arvada, CO 80002, TEL (303)735-0600

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95014-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-95014-1	RC4-SC-18	Solid	03/20/17 16:00	03/21/17 07:25
280-95014-2	RC4-SC-19	Solid	03/20/17 16:05	03/21/17 07:25
280-95014-3	RC4-SC-20	Solid	03/20/17 16:10	03/21/17 07:25
280-95014-4	RC4-SC-21	Solid	03/20/17 16:15	03/21/17 07:25
280-95014-5	RC4-SC-22	Solid	03/20/17 16:20	03/21/17 07:25
280-95014-6	RC4-SC-23	Solid	03/20/17 16:25	03/21/17 07:25
280-95014-7	RC4-SC-24	Solid	03/20/17 16:35	03/21/17 07:25
280-95014-8	RC4-SC-25	Solid	03/20/17 16:45	03/21/17 07:25
280-95014-9	RC4-SC-26	Solid	03/20/17 16:50	03/21/17 07:25
280-95014-10	RC4-SC-27	Solid	03/20/17 17:00	03/21/17 07:25
280-95014-11	RC4-SC-28	Solid	03/20/17 17:10	03/21/17 07:25
280-95014-12	RC4-SC-29	Solid	03/20/17 17:15	03/21/17 07:25

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95014-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-SC-18
Date Collected: 03/20/17 16:00
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-1
Matrix: Solid
Percent Solids: 85.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	170		14	3.8	mg/Kg	☼	03/21/17 11:50	03/22/17 12:33	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	149	D X	77 - 123				03/21/17 11:50	03/22/17 12:33	10

Client Sample ID: RC4-SC-19
Date Collected: 03/20/17 16:05
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-2
Matrix: Solid
Percent Solids: 86.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	590		68	18	mg/Kg	☼	03/21/17 11:50	03/21/17 17:12	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	318	X D	77 - 123				03/21/17 11:50	03/21/17 17:12	50

Client Sample ID: RC4-SC-20
Date Collected: 03/20/17 16:10
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-3
Matrix: Solid
Percent Solids: 83.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	91		7.0	1.9	mg/Kg	☼	03/21/17 11:50	03/22/17 12:58	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	89	D	77 - 123				03/21/17 11:50	03/22/17 12:58	5

Client Sample ID: RC4-SC-21
Date Collected: 03/20/17 16:15
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-4
Matrix: Solid
Percent Solids: 79.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	7.9		1.5	0.42	mg/Kg	☼	03/21/17 11:50	03/22/17 13:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	77		77 - 123				03/21/17 11:50	03/22/17 13:24	1

Client Sample ID: RC4-SC-22
Date Collected: 03/20/17 16:20
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-5
Matrix: Solid
Percent Solids: 85.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	22		1.4	0.38	mg/Kg	☼	03/21/17 11:50	03/22/17 13:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	84		77 - 123				03/21/17 11:50	03/22/17 13:49	1

Client Sample ID: RC4-SC-23
Date Collected: 03/20/17 16:25
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-6
Matrix: Solid
Percent Solids: 81.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	0.53	J	1.5	0.40	mg/Kg	☼	03/21/17 11:50	03/22/17 14:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	79		77 - 123				03/21/17 11:50	03/22/17 14:15	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95014-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-SC-24
Date Collected: 03/20/17 16:35
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-7
Matrix: Solid
Percent Solids: 81.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.5	0.41	mg/Kg	☼	03/21/17 11:50	03/22/17 15:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	92		77 - 123				03/21/17 11:50	03/22/17 15:06	1

Client Sample ID: RC4-SC-25
Date Collected: 03/20/17 16:45
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-8
Matrix: Solid
Percent Solids: 82.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	19		1.4	0.39	mg/Kg	☼	03/21/17 11:50	03/22/17 15:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	86		77 - 123				03/21/17 11:50	03/22/17 15:32	1

Client Sample ID: RC4-SC-26
Date Collected: 03/20/17 16:50
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-9
Matrix: Solid
Percent Solids: 85.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.4	0.37	mg/Kg	☼	03/21/17 11:50	03/22/17 15:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	84		77 - 123				03/21/17 11:50	03/22/17 15:57	1

Client Sample ID: RC4-SC-27
Date Collected: 03/20/17 17:00
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-10
Matrix: Solid
Percent Solids: 76.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.5	0.42	mg/Kg	☼	03/21/17 11:50	03/22/17 16:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	83		77 - 123				03/21/17 11:50	03/22/17 16:23	1

Client Sample ID: RC4-SC-28
Date Collected: 03/20/17 17:10
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-11
Matrix: Solid
Percent Solids: 84.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	57		7.1	1.9	mg/Kg	☼	03/21/17 11:50	03/22/17 16:49	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	93	D	77 - 123				03/21/17 11:50	03/22/17 16:49	5

Client Sample ID: RC4-SC-29
Date Collected: 03/20/17 17:15
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-12
Matrix: Solid
Percent Solids: 69.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	38		1.7	0.47	mg/Kg	☼	03/21/17 11:50	03/22/17 17:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	100		77 - 123				03/21/17 11:50	03/22/17 17:14	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95014-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-SC-18
Date Collected: 03/20/17 16:00
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-1
Matrix: Solid
Percent Solids: 85.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	15000		93	16	mg/Kg	☼	03/21/17 12:14	03/22/17 08:59	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	3090	X	49 - 115				03/21/17 12:14	03/22/17 08:59	2

Client Sample ID: RC4-SC-19
Date Collected: 03/20/17 16:05
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-2
Matrix: Solid
Percent Solids: 86.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	50000		220	38	mg/Kg	☼	03/21/17 12:14	03/22/17 09:28	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	10029	D X	49 - 115				03/21/17 12:14	03/22/17 09:28	5

Client Sample ID: RC4-SC-20
Date Collected: 03/20/17 16:10
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-3
Matrix: Solid
Percent Solids: 83.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	2800		22	3.7	mg/Kg	☼	03/21/17 12:14	03/22/17 09:56	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	162	D X	49 - 115				03/21/17 12:14	03/22/17 09:56	5

Client Sample ID: RC4-SC-21
Date Collected: 03/20/17 16:15
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-4
Matrix: Solid
Percent Solids: 79.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	670		4.8	0.81	mg/Kg	☼	03/21/17 12:14	03/22/17 00:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	128	X	49 - 115				03/21/17 12:14	03/22/17 00:46	1

Client Sample ID: RC4-SC-22
Date Collected: 03/20/17 16:20
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-5
Matrix: Solid
Percent Solids: 85.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	940		4.5	0.77	mg/Kg	☼	03/21/17 12:14	03/22/17 01:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	155	X	49 - 115				03/21/17 12:14	03/22/17 01:15	1

Client Sample ID: RC4-SC-23
Date Collected: 03/20/17 16:25
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-6
Matrix: Solid
Percent Solids: 81.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	160		4.9	0.83	mg/Kg	☼	03/21/17 12:14	03/22/17 01:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	80		49 - 115				03/21/17 12:14	03/22/17 01:43	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95014-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-SC-24
Date Collected: 03/20/17 16:35
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-7
Matrix: Solid
Percent Solids: 81.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	5.3		4.8	0.82	mg/Kg	☼	03/21/17 12:14	03/22/17 03:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	76		49 - 115				03/21/17 12:14	03/22/17 03:09	1

Client Sample ID: RC4-SC-25
Date Collected: 03/20/17 16:45
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-8
Matrix: Solid
Percent Solids: 82.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	770		4.8	0.82	mg/Kg	☼	03/21/17 12:14	03/22/17 03:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	115		49 - 115				03/21/17 12:14	03/22/17 03:37	1

Client Sample ID: RC4-SC-26
Date Collected: 03/20/17 16:50
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-9
Matrix: Solid
Percent Solids: 85.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	7.0		4.6	0.78	mg/Kg	☼	03/21/17 12:14	03/22/17 04:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	81		49 - 115				03/21/17 12:14	03/22/17 04:06	1

Client Sample ID: RC4-SC-27
Date Collected: 03/20/17 17:00
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-10
Matrix: Solid
Percent Solids: 76.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	18		5.1	0.86	mg/Kg	☼	03/21/17 12:14	03/22/17 04:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	83		49 - 115				03/21/17 12:14	03/22/17 04:35	1

Client Sample ID: RC4-SC-28
Date Collected: 03/20/17 17:10
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-11
Matrix: Solid
Percent Solids: 84.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	2500		18	3.1	mg/Kg	☼	03/21/17 12:14	03/22/17 10:25	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	278	X	49 - 115				03/21/17 12:14	03/22/17 10:25	2

Client Sample ID: RC4-SC-29
Date Collected: 03/20/17 17:15
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-12
Matrix: Solid
Percent Solids: 69.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	600		5.7	0.97	mg/Kg	☼	03/21/17 12:14	03/22/17 05:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	116	X	49 - 115				03/21/17 12:14	03/22/17 05:32	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95014-1

General Chemistry

Client Sample ID: RC4-SC-18
Date Collected: 03/20/17 16:00
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-1
Matrix: Solid
Percent Solids: 85.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.5		0.1	0.1	%			03/21/17 08:43	1
Percent Solids	85.5		0.1	0.1	%			03/21/17 08:43	1

Client Sample ID: RC4-SC-19
Date Collected: 03/20/17 16:05
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-2
Matrix: Solid
Percent Solids: 86.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.4		0.1	0.1	%			03/21/17 08:43	1
Percent Solids	86.6		0.1	0.1	%			03/21/17 08:43	1

Client Sample ID: RC4-SC-20
Date Collected: 03/20/17 16:10
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-3
Matrix: Solid
Percent Solids: 83.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.2		0.1	0.1	%			03/21/17 08:43	1
Percent Solids	83.8		0.1	0.1	%			03/21/17 08:43	1

Client Sample ID: RC4-SC-21
Date Collected: 03/20/17 16:15
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-4
Matrix: Solid
Percent Solids: 79.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.2		0.1	0.1	%			03/21/17 08:43	1
Percent Solids	79.8		0.1	0.1	%			03/21/17 08:43	1

Client Sample ID: RC4-SC-22
Date Collected: 03/20/17 16:20
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-5
Matrix: Solid
Percent Solids: 85.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.8		0.1	0.1	%			03/21/17 08:43	1
Percent Solids	85.2		0.1	0.1	%			03/21/17 08:43	1

Client Sample ID: RC4-SC-23
Date Collected: 03/20/17 16:25
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-6
Matrix: Solid
Percent Solids: 81.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.5		0.1	0.1	%			03/21/17 08:43	1
Percent Solids	81.5		0.1	0.1	%			03/21/17 08:43	1

Client Sample ID: RC4-SC-24
Date Collected: 03/20/17 16:35
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-7
Matrix: Solid
Percent Solids: 81.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.3		0.1	0.1	%			03/21/17 08:43	1
Percent Solids	81.7		0.1	0.1	%			03/21/17 08:43	1

Client Sample ID: RC4-SC-25
Date Collected: 03/20/17 16:45
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-8
Matrix: Solid
Percent Solids: 82.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.4		0.1	0.1	%			03/21/17 08:43	1
Percent Solids	82.6		0.1	0.1	%			03/21/17 08:43	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95014-1

General Chemistry

Client Sample ID: RC4-SC-26
Date Collected: 03/20/17 16:50
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-9
Matrix: Solid
Percent Solids: 85.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.9		0.1	0.1	%			03/21/17 08:43	1
Percent Solids	85.1		0.1	0.1	%			03/21/17 08:43	1

Client Sample ID: RC4-SC-27
Date Collected: 03/20/17 17:00
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-10
Matrix: Solid
Percent Solids: 76.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24.0		0.1	0.1	%			03/21/17 08:43	1
Percent Solids	76.0		0.1	0.1	%			03/21/17 08:43	1

Client Sample ID: RC4-SC-28
Date Collected: 03/20/17 17:10
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-11
Matrix: Solid
Percent Solids: 84.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.0		0.1	0.1	%			03/21/17 08:43	1
Percent Solids	84.0		0.1	0.1	%			03/21/17 08:43	1

Client Sample ID: RC4-SC-29
Date Collected: 03/20/17 17:15
Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-12
Matrix: Solid
Percent Solids: 69.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	30.8		0.1	0.1	%			03/21/17 08:43	1
Percent Solids	69.2		0.1	0.1	%			03/21/17 08:43	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95014-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	TFT1 (77-123)
280-95014-1	RC4-SC-18	149 D X
280-95014-2	RC4-SC-19	318 X D
280-95014-3	RC4-SC-20	89 D
280-95014-4	RC4-SC-21	77
280-95014-5	RC4-SC-22	84
280-95014-6	RC4-SC-23	79
280-95014-7	RC4-SC-24	92
280-95014-8	RC4-SC-25	86
280-95014-9	RC4-SC-26	84
280-95014-10	RC4-SC-27	83
280-95014-11	RC4-SC-28	93 D
280-95014-12	RC4-SC-29	100
LCS 280-366223/2-A	Lab Control Sample	93
MB 280-366223/1-A	Method Blank	94
Surrogate Legend		
TFT = a,a,a-Trifluorotoluene		

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	OTPH1 (49-115)
280-95014-1	RC4-SC-18	3090 X
280-95014-2	RC4-SC-19	10029 D
280-95014-2 MS	RC4-SC-19	X
280-95014-2 MSD	RC4-SC-19	899 X
280-95014-3	RC4-SC-20	1130 X
280-95014-4	RC4-SC-21	162 D X
280-95014-5	RC4-SC-22	128 X
280-95014-6	RC4-SC-23	155 X
280-95014-7	RC4-SC-24	80
280-95014-8	RC4-SC-25	76
280-95014-9	RC4-SC-26	115
280-95014-10	RC4-SC-27	81
280-95014-11	RC4-SC-28	83
280-95014-12	RC4-SC-29	278 X
LCS 280-366197/2-A	Lab Control Sample	116 X
MB 280-366197/1-A	Method Blank	83
Surrogate Legend		
OTPH = o-Terphenyl (Surr)		

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95014-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Lab Sample ID: MB 280-366223/1-A

Matrix: Solid

Analysis Batch: 366270

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 366223

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.2	0.33	mg/Kg		03/21/17 11:50	03/21/17 14:25	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	94		77 - 123				03/21/17 11:50	03/21/17 14:25	1

Lab Sample ID: LCS 280-366223/2-A

Matrix: Solid

Analysis Batch: 366270

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 366223

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
GRO (C6-C10)	5.39	5.85		mg/Kg		109	85 - 153		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
a,a,a-Trifluorotoluene	93		77 - 123						

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 280-366197/1-A

Matrix: Solid

Analysis Batch: 366278

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 366197

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		4.0	0.68	mg/Kg		03/21/17 12:14	03/21/17 21:28	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	85		49 - 115				03/21/17 12:14	03/21/17 21:28	1

Lab Sample ID: LCS 280-366197/2-A

Matrix: Solid

Analysis Batch: 366278

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 366197

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
DRO (C10-C28)	66.7	67.9		mg/Kg		102	53 - 115		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
o-Terphenyl (Surr)	83		49 - 115						

Lab Sample ID: 280-95014-2 MS

Matrix: Solid

Analysis Batch: 366278

Client Sample ID: RC4-SC-19

Prep Type: Total/NA

Prep Batch: 366197

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
DRO (C10-C28)	50000		76.8	42700	E 4	mg/Kg	✱	-9590	56 - 115
Surrogate	MS %Recovery	MS Qualifier	Limits						
o-Terphenyl (Surr)	899	X	49 - 115						

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95014-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: 280-95014-2 MSD

Matrix: Solid

Analysis Batch: 366278

Client Sample ID: RC4-SC-19

Prep Type: Total/NA

Prep Batch: 366197

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28)	50000		75.5	44000	E 4	mg/Kg	☼	-8114	56 - 115	3	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
o-Terphenyl (Surr)	1130	X	49 - 115								

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95014-1

GC VOA

Prep Batch: 366223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95014-1	RC4-SC-18	Total/NA	Solid	5035	
280-95014-2	RC4-SC-19	Total/NA	Solid	5035	
280-95014-3	RC4-SC-20	Total/NA	Solid	5035	
280-95014-4	RC4-SC-21	Total/NA	Solid	5035	
280-95014-5	RC4-SC-22	Total/NA	Solid	5035	
280-95014-6	RC4-SC-23	Total/NA	Solid	5035	
280-95014-7	RC4-SC-24	Total/NA	Solid	5035	
280-95014-8	RC4-SC-25	Total/NA	Solid	5035	
280-95014-9	RC4-SC-26	Total/NA	Solid	5035	
280-95014-10	RC4-SC-27	Total/NA	Solid	5035	
280-95014-11	RC4-SC-28	Total/NA	Solid	5035	
280-95014-12	RC4-SC-29	Total/NA	Solid	5035	
MB 280-366223/1-A	Method Blank	Total/NA	Solid	5035	
LCS 280-366223/2-A	Lab Control Sample	Total/NA	Solid	5035	

Analysis Batch: 366270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95014-2	RC4-SC-19	Total/NA	Solid	8015C	366223
MB 280-366223/1-A	Method Blank	Total/NA	Solid	8015C	366223
LCS 280-366223/2-A	Lab Control Sample	Total/NA	Solid	8015C	366223

Analysis Batch: 366439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95014-1	RC4-SC-18	Total/NA	Solid	8015C	366223
280-95014-3	RC4-SC-20	Total/NA	Solid	8015C	366223
280-95014-4	RC4-SC-21	Total/NA	Solid	8015C	366223
280-95014-5	RC4-SC-22	Total/NA	Solid	8015C	366223
280-95014-6	RC4-SC-23	Total/NA	Solid	8015C	366223
280-95014-7	RC4-SC-24	Total/NA	Solid	8015C	366223
280-95014-8	RC4-SC-25	Total/NA	Solid	8015C	366223
280-95014-9	RC4-SC-26	Total/NA	Solid	8015C	366223
280-95014-10	RC4-SC-27	Total/NA	Solid	8015C	366223
280-95014-11	RC4-SC-28	Total/NA	Solid	8015C	366223
280-95014-12	RC4-SC-29	Total/NA	Solid	8015C	366223

GC Semi VOA

Prep Batch: 366197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95014-1	RC4-SC-18	Total/NA	Solid	3546	
280-95014-2	RC4-SC-19	Total/NA	Solid	3546	
280-95014-3	RC4-SC-20	Total/NA	Solid	3546	
280-95014-4	RC4-SC-21	Total/NA	Solid	3546	
280-95014-5	RC4-SC-22	Total/NA	Solid	3546	
280-95014-6	RC4-SC-23	Total/NA	Solid	3546	
280-95014-7	RC4-SC-24	Total/NA	Solid	3546	
280-95014-8	RC4-SC-25	Total/NA	Solid	3546	
280-95014-9	RC4-SC-26	Total/NA	Solid	3546	
280-95014-10	RC4-SC-27	Total/NA	Solid	3546	
280-95014-11	RC4-SC-28	Total/NA	Solid	3546	

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95014-1

GC Semi VOA (Continued)

Prep Batch: 366197 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95014-12	RC4-SC-29	Total/NA	Solid	3546	
MB 280-366197/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-366197/2-A	Lab Control Sample	Total/NA	Solid	3546	
280-95014-2 MS	RC4-SC-19	Total/NA	Solid	3546	
280-95014-2 MSD	RC4-SC-19	Total/NA	Solid	3546	

Analysis Batch: 366278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95014-1	RC4-SC-18	Total/NA	Solid	8015C	366197
280-95014-2	RC4-SC-19	Total/NA	Solid	8015C	366197
280-95014-3	RC4-SC-20	Total/NA	Solid	8015C	366197
280-95014-4	RC4-SC-21	Total/NA	Solid	8015C	366197
280-95014-5	RC4-SC-22	Total/NA	Solid	8015C	366197
280-95014-6	RC4-SC-23	Total/NA	Solid	8015C	366197
280-95014-7	RC4-SC-24	Total/NA	Solid	8015C	366197
280-95014-8	RC4-SC-25	Total/NA	Solid	8015C	366197
280-95014-9	RC4-SC-26	Total/NA	Solid	8015C	366197
280-95014-10	RC4-SC-27	Total/NA	Solid	8015C	366197
280-95014-11	RC4-SC-28	Total/NA	Solid	8015C	366197
280-95014-12	RC4-SC-29	Total/NA	Solid	8015C	366197
MB 280-366197/1-A	Method Blank	Total/NA	Solid	8015C	366197
LCS 280-366197/2-A	Lab Control Sample	Total/NA	Solid	8015C	366197
280-95014-2 MS	RC4-SC-19	Total/NA	Solid	8015C	366197
280-95014-2 MSD	RC4-SC-19	Total/NA	Solid	8015C	366197

General Chemistry

Analysis Batch: 366177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95014-1	RC4-SC-18	Total/NA	Solid	Moisture	
280-95014-2	RC4-SC-19	Total/NA	Solid	Moisture	
280-95014-3	RC4-SC-20	Total/NA	Solid	Moisture	
280-95014-4	RC4-SC-21	Total/NA	Solid	Moisture	
280-95014-5	RC4-SC-22	Total/NA	Solid	Moisture	
280-95014-6	RC4-SC-23	Total/NA	Solid	Moisture	
280-95014-7	RC4-SC-24	Total/NA	Solid	Moisture	
280-95014-8	RC4-SC-25	Total/NA	Solid	Moisture	
280-95014-9	RC4-SC-26	Total/NA	Solid	Moisture	
280-95014-10	RC4-SC-27	Total/NA	Solid	Moisture	
280-95014-11	RC4-SC-28	Total/NA	Solid	Moisture	
280-95014-12	RC4-SC-29	Total/NA	Solid	Moisture	

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94076-7

Client Sample ID: RC4-SC-18

Date Collected: 03/20/17 16:00

Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-1

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	3 oisture		7			5VW11	05/27/17 08:65	A7D	TAL DEN

Client Sample ID: RC4-SC-18

Date Collected: 03/20/17 16:00

Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-1

Matrix: Solid

Percent Solids: 85.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	4054			9.88 g	70 mL	5VW225	05/27/17 77:40	MDM	TAL DEN
Total/NA	Analysis	8074C		70	0.7 mL	4 mL	5VW659	05/22/17 72:55	TE3	TAL DEN
Total/NA	Prep	546W			50.7 g	70 mL	5VW791	05/27/17 72:76	JDK	TAL DEN
Total/NA	Analysis	8074C		2			5VW218	05/22/17 08:49	TE3	TAL DEN

Client Sample ID: RC4-SC-19

Date Collected: 03/20/17 16:05

Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-2

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	3 oisture		7			5VW11	05/27/17 08:65	A7D	TAL DEN

Client Sample ID: RC4-SC-19

Date Collected: 03/20/17 16:05

Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-2

Matrix: Solid

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	4054			70.79 g	70 mL	5VW225	05/27/17 77:40	MDM	TAL DEN
Total/NA	Analysis	8074C		40	0.7 mL	4 mL	5VW210	05/27/17 71:72	MDM	TAL DEN
Total/NA	Prep	546W			57.5 g	70 mL	5VW791	05/27/17 72:76	JDK	TAL DEN
Total/NA	Analysis	8074C		4			5VW218	05/22/17 09:28	TE3	TAL DEN

Client Sample ID: RC4-SC-20

Date Collected: 03/20/17 16:10

Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-3

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	3 oisture		7			5VW11	05/27/17 08:65	A7D	TAL DEN

Client Sample ID: RC4-SC-20

Date Collected: 03/20/17 16:10

Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-3

Matrix: Solid

Percent Solids: 83.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	4054			70.20 g	70 mL	5VW225	05/27/17 77:40	MDM	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94076-7

Client Sample ID: RC4-SC-20

Date Collected: 03/20/17 16:10

Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-3

Matrix: Solid

Percent Solids: 83.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8074C		4	0.7 mL	4 mL	5WV659	05/22/71 72:48	TE3	TAL DEN
Total/NA	Prep	546W			52.8 g	7 mL	5WV791	05/27/71 72:76	JDK	TAL DEN
Total/NA	Analysis	8074C		4			5WV218	05/22/71 09:4W	TE3	TAL DEN

Client Sample ID: RC4-SC-21

Date Collected: 03/20/17 16:15

Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-4

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	3 oisture		7			5WV711	05/27/71 08:65	A7D	TAL DEN

Client Sample ID: RC4-SC-21

Date Collected: 03/20/17 16:15

Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-4

Matrix: Solid

Percent Solids: 79.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	4054			9.18 g	70 mL	5WV225	05/27/71 77:40	MDM	TAL DEN
Total/NA	Analysis	8074C		7	0.7 mL	4 mL	5WV659	05/22/71 75:26	TE3	TAL DEN
Total/NA	Prep	546W			57.7g	7 mL	5WV791	05/27/71 72:76	JDK	TAL DEN
Total/NA	Analysis	8074C		7			5WV218	05/22/71 00:6W	TE3	TAL DEN

Client Sample ID: RC4-SC-22

Date Collected: 03/20/17 16:20

Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-5

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	3 oisture		7			5WV711	05/27/71 08:65	A7D	TAL DEN

Client Sample ID: RC4-SC-22

Date Collected: 03/20/17 16:20

Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-5

Matrix: Solid

Percent Solids: 85.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	4054			70.02 g	70 mL	5WV225	05/27/71 77:40	MDM	TAL DEN
Total/NA	Analysis	8074C		7	0.7 mL	4 mL	5WV659	05/22/71 75:69	TE3	TAL DEN
Total/NA	Prep	546W			57.7 g	7 mL	5WV791	05/27/71 72:76	JDK	TAL DEN
Total/NA	Analysis	8074C		7			5WV218	05/22/71 07:74	TE3	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94076-7

Client Sample ID: RC4-SC-23

Lab Sample ID: 280-95014-6

Date Collected: 03/20/17 16:25

Matrix: Solid

Date Received: 03/21/17 07:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	3 oisture		7			5VW11	05/27/17 08:65	A7D	TAL DEN

Client Sample ID: RC4-SC-23

Lab Sample ID: 280-95014-6

Date Collected: 03/20/17 16:25

Matrix: Solid

Date Received: 03/21/17 07:25

Percent Solids: 81.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	4054			9.9Wg	70 mL	5VW225	05/27/17 77:40	MDM	TAL DEN
Total/NA	Analysis	8074C		7	0.7 mL	4 mL	5VW659	05/22/17 76:74	TE3	TAL DEN
Total/NA	Prep	546W			50.2 g	7 mL	5VW791	05/27/17 72:76	JDK	TAL DEN
Total/NA	Analysis	8074C		7			5VW218	05/22/17 07:65	TE3	TAL DEN

Client Sample ID: RC4-SC-24

Lab Sample ID: 280-95014-7

Date Collected: 03/20/17 16:35

Matrix: Solid

Date Received: 03/21/17 07:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	3 oisture		7			5VW11	05/27/17 08:65	A7D	TAL DEN

Client Sample ID: RC4-SC-24

Lab Sample ID: 280-95014-7

Date Collected: 03/20/17 16:35

Matrix: Solid

Date Received: 03/21/17 07:25

Percent Solids: 81.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	4054			9.18 g	70 mL	5VW225	05/27/17 77:40	MDM	TAL DEN
Total/NA	Analysis	8074C		7	0.7 mL	4 mL	5VW659	05/22/17 74:0W	TE3	TAL DEN
Total/NA	Prep	546W			50.4 g	7 mL	5VW791	05/27/17 72:76	JDK	TAL DEN
Total/NA	Analysis	8074C		7			5VW218	05/22/17 05:09	TE3	TAL DEN

Client Sample ID: RC4-SC-25

Lab Sample ID: 280-95014-8

Date Collected: 03/20/17 16:45

Matrix: Solid

Date Received: 03/21/17 07:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	3 oisture		7			5VW11	05/27/17 08:65	A7D	TAL DEN

Client Sample ID: RC4-SC-25

Lab Sample ID: 280-95014-8

Date Collected: 03/20/17 16:45

Matrix: Solid

Date Received: 03/21/17 07:25

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	4054			70.7Wg	70 mL	5VW225	05/27/17 77:40	MDM	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94076-7

Client Sample ID: RC4-SC-25

Date Collected: 03/20/17 16:45

Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-8

Matrix: Solid

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	Analysis	8074C		7	0.7 mL	4 mL	5WV659	05/22/71 74:52	TE3	TAL DEN
Total/NA	Prep	546W			50.0 g	7 mL	5WV791	05/27/71 72:76	JDK	TAL DEN
Total/NA	Analysis	8074C		7			5WV218	05/22/71 05:51	TE3	TAL DEN

Client Sample ID: RC4-SC-26

Date Collected: 03/20/17 16:50

Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-9

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	3 oisture		7			5WV711	05/27/71 08:65	A7D	TAL DEN

Client Sample ID: RC4-SC-26

Date Collected: 03/20/17 16:50

Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-9

Matrix: Solid

Percent Solids: 85.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	4054			70.22 g	70 mL	5WV225	05/27/71 77:40	MDM	TAL DEN
Total/NA	Analysis	8074C		7	0.7 mL	4 mL	5WV659	05/22/71 74:41	TE3	TAL DEN
Total/NA	Prep	546W			50.1 g	7 mL	5WV791	05/27/71 72:76	JDK	TAL DEN
Total/NA	Analysis	8074C		7			5WV218	05/22/71 06:0W	TE3	TAL DEN

Client Sample ID: RC4-SC-27

Date Collected: 03/20/17 17:00

Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-10

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	3 oisture		7			5WV711	05/27/71 08:65	A7D	TAL DEN

Client Sample ID: RC4-SC-27

Date Collected: 03/20/17 17:00

Date Received: 03/21/17 07:25

Lab Sample ID: 280-95014-10

Matrix: Solid

Percent Solids: 76.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	4054			70.24 g	70 mL	5WV225	05/27/71 77:40	MDM	TAL DEN
Total/NA	Analysis	8074C		7	0.7 mL	4 mL	5WV659	05/22/71 7W25	TE3	TAL DEN
Total/NA	Prep	546W			57.2 g	7 mL	5WV791	05/27/71 72:76	JDK	TAL DEN
Total/NA	Analysis	8074C		7			5WV218	05/22/71 06:54	TE3	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94076-7

Client Sample ID: RC4-SC-28

Lab Sample ID: 280-95014-11

Date Collected: 03/20/17 17:10

Matrix: Solid

Date Received: 03/21/17 07:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	3 oisture		7			5WV11	05/27/17 08:65	A7D	TAL DEN

Client Sample ID: RC4-SC-28

Lab Sample ID: 280-95014-11

Date Collected: 03/20/17 17:10

Matrix: Solid

Date Received: 03/21/17 07:25

Percent Solids: 84.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	4054			70.09 g	70 mL	5WV225	05/27/17 77:40	MDM	TAL DEN
Total/NA	Analysis	8074C		4	0.7 mL	4 mL	5WV659	05/22/17 7W69	TE3	TAL DEN
Total/NA	Prep	546W			57.7 g	2 mL	5WV791	05/27/17 72:76	JDK	TAL DEN
Total/NA	Analysis	8074C		2			5WV218	05/22/17 70:24	TE3	TAL DEN

Client Sample ID: RC4-SC-29

Lab Sample ID: 280-95014-12

Date Collected: 03/20/17 17:15

Matrix: Solid

Date Received: 03/21/17 07:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	3 oisture		7			5WV11	05/27/17 08:65	A7D	TAL DEN

Client Sample ID: RC4-SC-29

Lab Sample ID: 280-95014-12

Date Collected: 03/20/17 17:15

Matrix: Solid

Date Received: 03/21/17 07:25

Percent Solids: 69.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	4054			70.04 g	70 mL	5WV225	05/27/17 77:40	MDM	TAL DEN
Total/NA	Analysis	8074C		7	0.7 mL	4 mL	5WV659	05/22/17 71:76	TE3	TAL DEN
Total/NA	Prep	546W			50.5 g	7 mL	5WV791	05/27/17 72:76	JDK	TAL DEN
Total/NA	Analysis	8074C		7			5WV218	05/22/17 04:52	TE3	TAL DEN

Laboratory References:

TAL DEN = TestAmerica Denver, 6944 Yarrow Street, Arvada, CO 80002, TEL (505)15W0700

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94061-6

Laboratory: TestAmerica Denver

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
A2LA	DoD ELAP		2907.06	60-36-67
A2LA	ISO/IEC 67024		2907.06	60-36-67
Alabama	State Program	1	10730	09-30-62 5
Alaska STU	State Program	60	(ST-30	01-04-68
Arizona	State Program	9	Az 0763	62-20-67
Arkansas DEZ	State Program	Q	88-0Q87	0Q06-67
California	State Program	9	2463	06-08-68 5
Connecticut	State Program	6	PH-0Q8Q	09-30-68
Florida	NELAP	1	E87Q07	0Q30-67
Georgia	State Program	1	N/A	06-08-68
Illinois	NELAP	4	200067	01-30-68
Iowa	State Program	7	370	62-06-68 5
Kansas	NELAP	7	E-606Q0	01-30-67 5
Louisiana	NELAP	Q	0209Q	0Q30-67
Maine	State Program	6	CO0002	03-03-69
Minnesota	NELAP	4	8-999-104	62-36-67 5
Nevada	State Program	9	CO002Q	07-36-67
New Hampshire	NELAP	6	204360	01-28-67
New Jersey	NELAP	2	CO001	0Q30-67
New York	NELAP	2	669Q1	01-06-68
North Carolina KWW/SWU	State Program	1	348	62-36-67
North Dakota	State Program	8	R-031	06-09-68
Oklahoma	State Program	Q	8Q61	08-36-67
Oregon	NELAP	60	1024	06-08-68
Pennsylvania	NELAP	3	Q8-00Q01	07-36-67
South Carolina	State Program	1	72002006	06-09-67 5
Texas	NELAP	Q	T601701683-6Q62	09-30-67
(SDA	Federal		P330-6Q00397	62-64-69
(tah	NELAP	8	CO0002Q	07-36-67
Virginia	NELAP	3	1Q0232	0Q61-67
Washington	State Program	60	C483	08-02-67
West Virginia DEP	State Program	3	341	66-30-67
Wisconsin	State Program	4	999Q64130	08-36-67
Wyoming K STU	A2LA	8	2907.06	60-36-67

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

TestAmerica Denver

Chain of Custody Record

TestAmerica Denver
4955 Yarrow Street

Arvada, CO 80002-4517
phone 303.736.0100 fax 303.431.7171

TestAmerica Laboratories, Inc.

Client Contact Stantec 2000 South Colorado Blvd., Suite 2-300 Denver, CO 80222 (303) 758-4058 Phone (303) 758-4828 FAX Project Name: CPL-Rangely C-4 Site: CPL Rangely P O # 203720102		Regulatory Program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other: Project Manager: Bethany Lucente Tel/Fax: (303) 250-4718 Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below ASAP <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input checked="" type="checkbox"/> 1 day		Site Contact: Bethany Lucente Lab Contact: Jamie Ide Date: _____ Carrier: Courier COC No: 2 of 2 COCs						
Sample Identification RC4-SC-18 RC4-SC-19 RC4-SC-20 RC4-SC-21 RC4-SC-22 RC4-SC-23 RC4-SC-24 RC4-SC-25 RC4-SC-26 RC4-SC-27 RC4-SC-28 RC4-SC-29	Sample Date 3/20/17 3/20/17 3/20/17 3/20/17 3/20/17 3/20/17 3/20/17 3/20/17 3/20/17 3/20/17 3/20/17 3/20/17	Sample Time 1600 1605 1610 1615 1620 1625 1635 1645 1650 1700 1710 1715	Sample Type (C-comp, G-grab) g g g g g g g g g g g	Matrix Se Se Se Se Se Se Se Se Se Se Se	# of Cont. 1 1 1 1 1 1 1 1 1 1 1 1	Filtered Sample (Y/N) X X X X X X X X X X X	Perform MS / MSD (Y/N) X X X X X X X X X X X	BTEX 8260B GRO-TEPH 8016C DRO-TEPH 8016C DRO, ORO w/ SGHEM PAHs 8270D SIM Metals 8010C Hg 7471A PH 9045D Moisture Cr/II/Cr/VI 7196A As 6020	Sample Specific Notes: 122 PPM 165 PPM 125 PPM PPM PPM PPM PPM 21 PPM 1 PPM 56 PPM 192 PPM 27 PPM	
	280-95014 Chain of Custody									
	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months									
	Possible Hazard Identification: Please List any EPA Waste Codes for the sample in the Are any samples from a listed EPA Hazardous Waste? to dispose of the sample. Comments Section if the lab is to dispose of the sample. Preservation Used: <input type="checkbox"/> Ice <input type="checkbox"/> 2 HCl <input type="checkbox"/> 3 HNO3 <input type="checkbox"/> 4 H2SO4 <input type="checkbox"/> 5 NaOH <input type="checkbox"/> 6 Other: _____ <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown									
	Special Instructions/QC Requirements & Comments: Metals include Ba, B, Cd, Cr, Cu, Pb, Ni, Se, Ag, Zn									
	Custody Seal No.: 1823 Relinquished by: [Signature] Relinquished by: [Signature] Relinquished by: [Signature]		Received by: [Signature] Received by: [Signature] Received in Laboratory by: [Signature]		Date/Time: 3/20/17 Date/Time: 3/20/17 Date/Time: 3/20/17		Company: BILLEYE Company: BILLEYE Company: BILLEYE		Therm ID No.: 1823 Date/Time: 3/20/17 Date/Time: 3/20/17 Date/Time: 3/20/17	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-95014-1

Login Number: 95014

List Source: TestAmerica Denver

List Number: 1

Creator: Bieniulis, Dylan T

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 (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver

4955 Yarrow Street

Arvada, CO 80002

Tel: (303)736-0100

TestAmerica Job ID: 280-95087-1

Client Project/Site: Stantec CVX - Rangely, CO

For:

Stantec Consulting Corp.

2000 South Colorado Blvd

Suite 2-300

Denver, Colorado 80222

Attn: Ms. Bethany Lucente



Authorized for release by:

3/24/2017 4:20:11 PM

Jamie Ide, Project Manager I

(303)736-0126

jamie.ide@testamericainc.com

LINKS

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results through

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www.testamericainc.com

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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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

Qualifiers

GC SmV

Qualifier	Qualifier Description
X	Surrogate is outside control limits
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.

GC cep i SmV

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
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These are the only used abbreviations that 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, 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)

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

Job ID: 280-95087-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Stantec Consulting Corp.
Project: Stantec CVX - Rangely, CO
Report Number: 280-95087-1

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 on 3/23/2017 7:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.5° C and 4.5° C.

GASOLINE RANGE ORGANICS (GRO)

a,a,a-Trifluorotoluene failed the surrogate recovery criteria low for RC4-SC-36 (280-95107-1), RC4-SC-30 (280-95087-1), RC4-SC-31 (280-95087-2), RC4-SC-32 (280-95087-3), RC4-SC-34 (280-95087-5), and RC4-SC-35 (280-95087-6).. Each sample had high moisture content with the exception of sample RC4-SC-32 (280-95087-3). Due to interference or analytes present at high concentrations, sample RC4-SC-32 (280-95087-3) was diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required. The surrogate recoveries are calculated from diluted samples and in some cases are diluted below reportable limits.

a,a,a-Trifluorotoluene failed the surrogate recovery criteria low for RC4-SC-37 (280-95107-2), RC4-SC-33 (280-95087-4) and RC4-SC-33MS (280-95087-4MS). There is no obvious matrix to explain the failure. Due to the needs of the client, the data is being reported. If the client requires re-extraction, please notify the laboratory.

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

DIESEL RANGE ORGANICS

The initial aliquot and surrogate aliquot used for extraction of the following sample was split between two extraction vessels with the routine volume of solvent added to each vessel: RC4-SC-36 (280-95107-1) and RC4-SC-37 (280-95107-2). After the extraction, the extracts from both vessels were combined and concentrated. This was done due to first attempt at extraction in one tube caused the tube to vent.

Due to the matrix, the following sample could not be concentrated to the final method required volume: RC4-SC-32 (280-95087-3). The reporting limits (RLs) are elevated proportionately. Adjusted volume 2 mL

o-Terphenyl failed the surrogate recovery criteria high for RC4-SC-32 (280-95087-3). 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. The surrogate recoveries are calculated from diluted samples and in some cases are diluted below reportable limits.

The MS/MSD performed on sample RC4-SC-33 (280-95087-4) exhibited spike recoveries outside QC control limits for DRO (C10-C28). The associated LCS was in control and demonstrates that operating procedures were in control. No further action was required.

Sample RC4-SC-32 (280-95087-3)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

PERCENT SOLIDS

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

Job ID: 280-95087-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

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

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Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

Client Sample ID: RC4-SC-30

Lab Sample ID: 280-95087-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
DRO (C10-C28)	6.6		4.9	0.83	mg/Kg	1		✖	8015C	Total/NA

Client Sample ID: RC4-SC-31

Lab Sample ID: 280-95087-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	4.4		1.5	0.41	mg/Kg	1		✖	8015C	Total/NA
DRO (C10-C28)	44		5.1	0.86	mg/Kg	1		✖	8015C	Total/NA
ORO (C20-C38)	26		15	4.9	mg/Kg	1		✖	8015C	Total/NA

Client Sample ID: RC4-SC-32

Lab Sample ID: 280-95087-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	1300		77	21	mg/Kg	50		✖	8015C	Total/NA
DRO (C10-C28)	23000		100	17	mg/Kg	10		✖	8015C	Total/NA
ORO (C20-C38)	11000		300	97	mg/Kg	10		✖	8015C	Total/NA

Client Sample ID: RC4-SC-33

Lab Sample ID: 280-95087-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	5.9		1.4	0.37	mg/Kg	1		✖	8015C	Total/NA
DRO (C10-C28)	260	F1	4.4	0.75	mg/Kg	1		✖	8015C	Total/NA
ORO (C20-C38)	170		13	4.3	mg/Kg	1		✖	8015C	Total/NA

Client Sample ID: RC4-SC-34

Lab Sample ID: 280-95087-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	11		1.4	0.39	mg/Kg	1		✖	8015C	Total/NA
DRO (C10-C28)	400		4.9	0.83	mg/Kg	1		✖	8015C	Total/NA
ORO (C20-C38)	200		15	4.8	mg/Kg	1		✖	8015C	Total/NA

Client Sample ID: RC4-SC-35

Lab Sample ID: 280-95087-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	2.6		1.5	0.41	mg/Kg	1		✖	8015C	Total/NA
DRO (C10-C28)	160		4.9	0.82	mg/Kg	1		✖	8015C	Total/NA
ORO (C20-C38)	180		15	4.8	mg/Kg	1		✖	8015C	Total/NA

Client Sample ID: RC4-SC-36

Lab Sample ID: 280-95107-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	4.3		1.5	0.40	mg/Kg	1		✖	8015C	Total/NA
DRO (C10-C28)	170		5.0	0.84	mg/Kg	1		✖	8015C	Total/NA
ORO (C20-C38)	100		15	4.9	mg/Kg	1		✖	8015C	Total/NA

Client Sample ID: RC4-SC-37

Lab Sample ID: 280-95107-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	27		1.4	0.39	mg/Kg	1		✖	8015C	Total/NA
DRO (C10-C28)	220		4.8	0.82	mg/Kg	1		✖	8015C	Total/NA
ORO (C20-C38)	110		14	4.7	mg/Kg	1		✖	8015C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94087-6

Method	Method Description	Protocol	Laboratory
8064C	Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	SW815	TAL DEN
8064C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW815	TAL DEN
Moisture	Percent Moisture	EPA	TAL DEN

Protocol References:

EPA = " S Environmental Protection Agency

SW815 = UTest Methods For Evaluating Solid Waste, Physical/Chemical MethodsU Third Edition, November 6985 And Its " pdates.

Laboratory References:

TAL DEN = TestAmerica Denver, 1944 Yarrow Street, Arvada, CO 80002, TEL (303)735-0600

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95081-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-95081-4	RCd-SC-30	Soli7	03/24/41 42:45	03/23/41 01:00
280-95081-2	RCd-SC-34	Soli7	03/24/41 42:25	03/23/41 01:00
280-95081-3	RCd-SC-32	Soli7	03/24/41 43:00	03/23/41 01:00
280-95081-d	RCd-SC-33	Soli7	03/24/41 43:05	03/23/41 01:00
280-95081-5	RCd-SC-3d	Soli7	03/24/41 43:30	03/23/41 01:00
280-95081-6	RCd-SC-35	Soli7	03/24/41 43:d0	03/23/41 01:00
280-95401-4	RCd-SC-36	Soli7	03/22/41 46:d5	03/23/41 01:00
280-95401-2	RCd-SC-31	Soli7	03/22/41 41:00	03/23/41 01:00

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95081-4

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-SC-30
Date Collected: 03/21/17 12:15
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-1
Matrix: Solid
Percent Solids: 78.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 RO IC7-C406	v D		4.5	0.04	mg/(g	☼	0)/2)/41 40:24	0)/2)/41 42:) 4	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	14	9	11 - D X				7X2 XD13D70 D	7X2 XD13D 0XD	D

Client Sample ID: RC4-SC-31
Date Collected: 03/21/17 12:25
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-2
Matrix: Solid
Percent Solids: 78.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	4.4		4.5	0.04	mg/(g	☼	0)/2)/41 40:24	0)/2)/41 42:57	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	1/	9	11 - D X				7X2 XD13D70 D	7X2 XD13D 0 :	D

Client Sample ID: RC4-SC-32
Date Collected: 03/21/17 13:00
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-3
Matrix: Solid
Percent Solids: 76.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	1300		11	24	mg/(g	☼	0)/2)/41 40:24	0)/2G41 09:05	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	7	53	11 - D X				7X2 XD13D70 D	7X2 4D13804/	/7

Client Sample ID: RC4-SC-33
Date Collected: 03/21/17 13:05
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-4
Matrix: Solid
Percent Solids: 86.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	5.9		4.6	0.) 1	mg/(g	☼	0)/2)/41 40:24	0)/2)/41 4):G1	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	: 8	9	11 - D X				7X2 XD13D70 D	7X2 XD13DX041	D

Client Sample ID: RC4-SC-34
Date Collected: 03/21/17 13:30
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-5
Matrix: Solid
Percent Solids: 81.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	11		4.6	0.) 9	mg/(g	☼	0)/2)/41 40:24	0)/2)/41 4G4)	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	17	9	11 - D X				7X2 XD13D70 D	7X2 XD13D4DX	D

Client Sample ID: RC4-SC-35
Date Collected: 03/21/17 13:40
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-6
Matrix: Solid
Percent Solids: 78.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	2.6		4.5	0.04	mg/(g	☼	0)/2)/41 40:24	0)/2)/41 4G:) 8	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	: 1	9	11 - D X				7X2 XD13D70 D	7X2 XD13D40X6	D

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95081-4

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-SC-36
Date Collected: 03/22/17 16:45
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95107-1
Matrix: Solid
Percent Solids: 80.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	4.3		4.5	0.00	mg/(g	✱	0)/2)/41 4):40	0)/2)/41 45:0G	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a.a.a-Trifluorotoluene	4	9	11 - D X				7X2 X2D13X07	7X2 X2D13X07	D

Client Sample ID: RC4-SC-37
Date Collected: 03/22/17 17:00
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95107-2
Matrix: Solid
Percent Solids: 81.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	27		4.6	0.) 9	mg/(g	✱	0)/2)/41 4):40	0)/2)/41 45:29	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a.a.a-Trifluorotoluene	1:	9	11 - D X				7X2 X2D13X07	7X2 X2D13X07	D

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-SC-30
Date Collected: 03/21/17 12:15
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-1
Matrix: Solid
Percent Solids: 78.9

Data Received: 06/20/17 07:10							Percent Cond: 78.9		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	6.6		G9	0.8)	mg/(g	✱	0)/2)/41 40:00	0)/2)/41 47:01	4
ORO (C20-C) 86	v D		45	G8	mg/(g	✱	0)/2)/41 40:00	0)/2)/41 47:01	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	: X		48 - DD				7X2 X2D13X07	7X2 X2D13X07	D

Client Sample ID: RC4-SC-31
Date Collected: 03/21/17 12:25
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-2
Matrix: Solid
Percent Solids: 78.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	44		5.4	0.87	mg/(g	☼	0)/2)/41 40:00	0)/2)/41 47:) 7	4
ORO (C20-C38)	26		45	G9	mg/(g	☼	0)/2)/41 40:00	0)/2)/41 47:) 7	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(3Surr)	16		48 - DD				7X2 X2D13D707	7X2 X2D13D: 0:	D

Client Sample ID: RC4-SC-32
Date Collected: 03/21/17 13:00
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-3
Matrix: Solid
Percent Solids: 76.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	23000		400	41	mg/(g	☼	0)/2)/41 40:00	0)/2)/41 22:08	40
ORO (C20-C38)	11000		) 00	91	mg/(g	☼	0)/2)/41 40:00	0)/2)/41 22:08	40
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	XD87	9.35	48 - DD				7X2 X2D13X07	7X2 X2D13X06	D7

Client Sample ID: RC4-SC-33
Date Collected: 03/21/17 13:05
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-4
Matrix: Solid
Percent Solids: 86.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	260	F1	G6	0.15	mg/(g	✱	0)/2)/41 40:00	0)/2)/41 48:29	4
ORO (C20-C38)	170		4)	G)	mg/(g	✱	0)/2)/41 40:00	0)/2)/41 48:29	4

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95081-4

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Surrogate	%Recovery	Qualifier	Limits							Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl(Surr)	81		48 - DD							7X2 X2D13D707	7X2 X2D13D608	D
Client Sample ID: RC4-SC-34 Date Collected: 03/21/17 13:30 Date Received: 03/23/17 07:00				Lab Sample ID: 280-95087-5 Matrix: Solid Percent Solids: 81.8								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac			
DRO (C10-C28)	400		G9	0.8)	mg/(g	☼	0)/2)/41 40:00	0)/2)/41 49:57	4			
ORO (C20-C38)	200		45	G8	mg/(g	☼	0)/2)/41 40:00	0)/2)/41 49:57	4			
Surrogate	%Recovery	Qualifier	Limits							Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl(Surr)	88		48 - DD							7X2 X2D13D707	7X2 X2D13D807	D
Client Sample ID: RC4-SC-35 Date Collected: 03/21/17 13:40 Date Received: 03/23/17 07:00				Lab Sample ID: 280-95087-6 Matrix: Solid Percent Solids: 78.4								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac			
DRO (C10-C28)	160		G9	0.82	mg/(g	☼	0)/2)/41 40:00	0)/2)/41 20:25	4			
ORO (C20-C38)	180		45	G8	mg/(g	☼	0)/2)/41 40:00	0)/2)/41 20:25	4			
Surrogate	%Recovery	Qualifier	Limits							Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl(Surr)	6		48 - DD							7X2 X2D13D707	7X2 X2D13707	D
Client Sample ID: RC4-SC-36 Date Collected: 03/22/17 16:45 Date Received: 03/23/17 07:00				Lab Sample ID: 280-95107-1 Matrix: Solid Percent Solids: 80.0								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac			
DRO (C10-C28)	170		5.0	0.8G	mg/(g	☼	0)/2)/41 4):45	0)/2)/41 20:5G	4			
ORO (C20-C38)	100		45	G9	mg/(g	☼	0)/2)/41 4):45	0)/2)/41 20:5G	4			
Surrogate	%Recovery	Qualifier	Limits							Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl(Surr)	68		48 - DD							7X2 X2D13D707	7X2 X2D13704	D
Client Sample ID: RC4-SC-37 Date Collected: 03/22/17 17:00 Date Received: 03/23/17 07:00				Lab Sample ID: 280-95107-2 Matrix: Solid Percent Solids: 81.8								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac			
DRO (C10-C28)	220		G8	0.82	mg/(g	☼	0)/2)/41 4):45	0)/2)/41 24:22	4			
ORO (C20-C38)	110		4G	G1	mg/(g	☼	0)/2)/41 4):45	0)/2)/41 24:22	4			
Surrogate	%Recovery	Qualifier	Limits							Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl(Surr)	67		48 - DD							7X2 X2D13D707	7X2 X2D13D0	D

General Chemistry

Client Sample ID: RC4-SC-30							Lab Sample ID: 280-95087-1		
Date Collected: 03/21/17 12:15							Matrix: Solid		
Date Received: 03/23/17 07:00							Percent Solids: 78.9		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21.1		0.4	0.4	%			0)/2)/41 09:54	4
Percent Solids	78.9		0.4	0.4	%			0)/2)/41 09:54	4

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95081-4

General Chemistry

Client Sample ID: RC4-SC-31
Date Collected: 03/21/17 12:25
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-2
Matrix: Solid
Percent Solids: 78.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21.9		0.4	0.4	%			0)/2)/41 09:54	4
Percent Solids	78.1		0.4	0.4	%			0)/2)/41 09:54	4

Client Sample ID: RC4-SC-32
Date Collected: 03/21/17 13:00
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-3
Matrix: Solid
Percent Solids: 76.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23.5		0.4	0.4	%			0)/2)/41 09:54	4
Percent Solids	76.5		0.4	0.4	%			0)/2)/41 09:54	4

Client Sample ID: RC4-SC-33
Date Collected: 03/21/17 13:05
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-4
Matrix: Solid
Percent Solids: 86.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.9		0.4	0.4	%			0)/2)/41 09:54	4
Percent Solids	86.1		0.4	0.4	%			0)/2)/41 09:54	4

Client Sample ID: RC4-SC-34
Date Collected: 03/21/17 13:30
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-5
Matrix: Solid
Percent Solids: 81.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.2		0.4	0.4	%			0)/2)/41 09:54	4
Percent Solids	81.8		0.4	0.4	%			0)/2)/41 09:54	4

Client Sample ID: RC4-SC-35
Date Collected: 03/21/17 13:40
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-6
Matrix: Solid
Percent Solids: 78.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21.6		0.4	0.4	%			0)/2)/41 09:54	4
Percent Solids	78.4		0.4	0.4	%			0)/2)/41 09:54	4

Client Sample ID: RC4-SC-36
Date Collected: 03/22/17 16:45
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95107-1
Matrix: Solid
Percent Solids: 80.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.0		0.4	0.4	%			0)/2)/41 09:54	4
Percent Solids	80.0		0.4	0.4	%			0)/2)/41 09:54	4

Client Sample ID: RC4-SC-37
Date Collected: 03/22/17 17:00
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95107-2
Matrix: Solid
Percent Solids: 81.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.2		0.4	0.4	%			0)/2)/41 09:54	4
Percent Solids	81.8		0.4	0.4	%			0)/2)/41 09:54	4

TestAmerica Denver

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95081-4

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	TFT1 (77-123)
280-95081-4	RC3-SC-70	13 X
280-95081-2	RC3-SC-74	15 X
280-95081-7	RC3-SC-72	0 D X
280-95081-3	RC3-SC-77	69 X
280-95081-3 L S	RC3-SC-77	13 X
280-95081-3 L SD	RC3-SC-77	80
280-95081-5	RC3-SC-73	10 X
280-95081-6	RC3-SC-75	61 X
280-95401-4	RC3-SC-76	63 X
280-95401-2	RC3-SC-71	16 X
MCS 280-766569/2-A	Lab Control Sample	97
L B 280-766569/4-A	Lab Method Blank	94

Surrogate Legend

TFT = a,a,a-Trifluorotoluene

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	OTPH1 (49-115)
280-95081-4	RC3-SC-70	67
280-95081-2	RC3-SC-74	18
280-95081-7	RC3-SC-72	7490 X D
280-95081-3	RC3-SC-77	91
280-95081-3 L S	RC3-SC-77	400
280-95081-3 L SD	RC3-SC-77	98
280-95081-5	RC3-SC-73	99
280-95081-6	RC3-SC-75	68
280-95401-4	RC3-SC-76	89
280-95401-2	RC3-SC-71	80
MCS 280-766556/2-A	Lab Control Sample	82
L B 280-766556/4-A	Lab Method Blank	84

Surrogate Legend

OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Lab Sample ID: MB 280-366569/1-A

Matrix: Solid

Analysis Batch: 366591

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 366569

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.2	0.33	mg/Kg		03/23/17 10:21	03/23/17 11:40	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	94		77 - 412				3/20/17 4:14	3/20/17 4:43	4

Lab Sample ID: LCS 280-366569/2-A

Matrix: Solid

Analysis Batch: 366591

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 366569

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
GRO (C6-C10)	5.50	6.76		mg/Kg		123	85 - 153
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
a,a,a-Trifluorotoluene	92		77 - 412				

Lab Sample ID: 280-95087-4 MS

Matrix: Solid

Analysis Batch: 366591

Client Sample ID: RC4-SC-33

Prep Type: Total/NA

Prep Batch: 366569

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
GRO (C6-C10)	5.9		6.38	13.1		mg/Kg	☼	113	85 - 153
Surrogate	MS %Recovery	MS Qualifier	Limits						
a,a,a-Trifluorotoluene	7	5	77 - 412						

Lab Sample ID: 280-95087-4 MSD

Matrix: Solid

Analysis Batch: 366591

Client Sample ID: RC4-SC-33

Prep Type: Total/NA

Prep Batch: 366569

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
GRO (C6-C10)	5.9		6.32	12.4		mg/Kg	☼	104	85 - 153	5	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
a,a,a-Trifluorotoluene	p3		77 - 412								

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 280-366556/1-A

Matrix: Solid

Analysis Batch: 366592

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 366556

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		4.0	0.68	mg/Kg		03/23/17 10:00	03/23/17 15:09	1
ORO (C20-C38)	ND		12	3.9	mg/Kg		03/23/17 10:00	03/23/17 15:09	1

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: MB 280-366556/1-A
Matrix: Solid
Analysis Batch: 366592

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 366556

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terhyen(I/S urr8	p4		: 9 - 44X	32012017/43 33	32012017/4X 39	4

Lab Sample ID: LCS 280-366556/2-A
Matrix: Solid
Analysis Batch: 366592

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 366556

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28)	66.7	63.6		mg/Kg		95	53 - 115
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
o-Terhyen(I/S urr8	p1		: 9 - 44X				

Lab Sample ID: 280-95087-4 MS
Matrix: Solid
Analysis Batch: 366592

Client Sample ID: RC4-SC-33
Prep Type: Total/NA
Prep Batch: 366556

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28)	260	F1	73.0	298		mg/Kg	✖	56	56 - 115
Surrogate	MS %Recovery	MS Qualifier	Limits						
o-Terhyen(I/S urr8	433		: 9 - 44X						

Lab Sample ID: 280-95087-4 MSD
Matrix: Solid
Analysis Batch: 366592

Client Sample ID: RC4-SC-33
Prep Type: Total/NA
Prep Batch: 366556

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD Limit
DRO (C10-C28)	260	F1	73.9	273	F1	mg/Kg	✖	20	56 - 115	9 23
Surrogate	MSD %Recovery	MSD Qualifier	Limits							
o-Terhyen(I/S urr8	9p		: 9 - 44X							

Method: Moisture - Percent Moisture

Lab Sample ID: 280-95087-6 DU
Matrix: Solid
Analysis Batch: 366567

Client Sample ID: RC4-SC-35
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD Limit
Percent Moisture	21.6		21.6		%		0 20
Percent Solids	78.4		78.4		%		0 20

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

GC VOA

Prep Batch: 366569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95087-1	RC4-SC-30	Total/NA	Solid	5035	
280-95087-2	RC4-SC-31	Total/NA	Solid	5035	
280-95087-3	RC4-SC-32	Total/NA	Solid	5035	
280-95087-4	RC4-SC-33	Total/NA	Solid	5035	
280-95087-5	RC4-SC-34	Total/NA	Solid	5035	
280-95087-6	RC4-SC-35	Total/NA	Solid	5035	
280-95107-1	RC4-SC-36	Total/NA	Solid	5030A	
280-95107-2	RC4-SC-37	Total/NA	Solid	5030A	
MB 280-366569/1-A	Method Blank	Total/NA	Solid	5030A	
LCS 280-366569/2-A	Lab Control Sample	Total/NA	Solid	5030A	
280-95087-4 MS	RC4-SC-33	Total/NA	Solid	5035	
280-95087-4 MSD	RC4-SC-33	Total/NA	Solid	5035	

Analysis Batch: 366591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95087-1	RC4-SC-30	Total/NA	Solid	8015C	366569
280-95087-2	RC4-SC-31	Total/NA	Solid	8015C	366569
280-95087-4	RC4-SC-33	Total/NA	Solid	8015C	366569
280-95087-5	RC4-SC-34	Total/NA	Solid	8015C	366569
280-95087-6	RC4-SC-35	Total/NA	Solid	8015C	366569
280-95107-1	RC4-SC-36	Total/NA	Solid	8015C	366569
280-95107-2	RC4-SC-37	Total/NA	Solid	8015C	366569
MB 280-366569/1-A	Method Blank	Total/NA	Solid	8015C	366569
LCS 280-366569/2-A	Lab Control Sample	Total/NA	Solid	8015C	366569
280-95087-4 MS	RC4-SC-33	Total/NA	Solid	8015C	366569
280-95087-4 MSD	RC4-SC-33	Total/NA	Solid	8015C	366569

Analysis Batch: 366712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95087-3	RC4-SC-32	Total/NA	Solid	8015C	366569

GC Semi VOA

Prep Batch: 366556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95087-1	RC4-SC-30	Total/NA	Solid	3546	
280-95087-2	RC4-SC-31	Total/NA	Solid	3546	
280-95087-3	RC4-SC-32	Total/NA	Solid	3546	
280-95087-4	RC4-SC-33	Total/NA	Solid	3546	
280-95087-5	RC4-SC-34	Total/NA	Solid	3546	
280-95087-6	RC4-SC-35	Total/NA	Solid	3546	
280-95107-1	RC4-SC-36	Total/NA	Solid	3546	
280-95107-2	RC4-SC-37	Total/NA	Solid	3546	
MB 280-366556/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-366556/2-A	Lab Control Sample	Total/NA	Solid	3546	
280-95087-4 MS	RC4-SC-33	Total/NA	Solid	3546	
280-95087-4 MSD	RC4-SC-33	Total/NA	Solid	3546	

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

GC Semi VOA (Continued)

Analysis Batch: 366592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95087-1	RC4-SC-30	Total/NA	Solid	8015C	366556
280-95087-2	RC4-SC-31	Total/NA	Solid	8015C	366556
280-95087-3	RC4-SC-32	Total/NA	Solid	8015C	366556
280-95087-4	RC4-SC-33	Total/NA	Solid	8015C	366556
280-95087-5	RC4-SC-34	Total/NA	Solid	8015C	366556
280-95087-6	RC4-SC-35	Total/NA	Solid	8015C	366556
280-95107-1	RC4-SC-36	Total/NA	Solid	8015C	366556
280-95107-2	RC4-SC-37	Total/NA	Solid	8015C	366556
MB 280-366556/1-A	Method Blank	Total/NA	Solid	8015C	366556
LCS 280-366556/2-A	Lab Control Sample	Total/NA	Solid	8015C	366556
280-95087-4 MS	RC4-SC-33	Total/NA	Solid	8015C	366556
280-95087-4 MSD	RC4-SC-33	Total/NA	Solid	8015C	366556

General Chemistry

Analysis Batch: 366567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95087-1	RC4-SC-30	Total/NA	Solid	Moisture	
280-95087-2	RC4-SC-31	Total/NA	Solid	Moisture	
280-95087-3	RC4-SC-32	Total/NA	Solid	Moisture	
280-95087-4	RC4-SC-33	Total/NA	Solid	Moisture	
280-95087-5	RC4-SC-34	Total/NA	Solid	Moisture	
280-95087-6	RC4-SC-35	Total/NA	Solid	Moisture	
280-95107-1	RC4-SC-36	Total/NA	Solid	Moisture	
280-95107-2	RC4-SC-37	Total/NA	Solid	Moisture	
280-95087-6 DU	RC4-SC-35	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

Client Sample ID: RC4-SC-18

Date Collecte/ : 8172x7Mx2:x5

Date Recei6e/ : 817217M8M88

Lab Sample ID: 208-9580Mx

d atri3: Soli/

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

Client Sample ID: RC4-SC-18

Date Collecte/ : 8172x7Mx2:x5

Date Recei6e/ : 817217M8M88

Lab Sample ID: 208-9580Mx

d atri3: Soli/

Bercent Soli/ A: MDN

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5035			10.04 g	10 mL	366569	03/23/17 10:21	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	366591	03/23/17 12:31	TEM	TAL DEN
Total/NA	Prep	3546			31.0 g	1 mL	366556	03/23/17 10:00	JRA	TAL DEN
Total/NA	Analysis	8015C		1			366592	03/23/17 16:07	TEM	TAL DEN

Client Sample ID: RC4-SC-1x

Date Collecte/ : 8172x7Mx2:25

Date Recei6e/ : 817217M8M88

Lab Sample ID: 208-9580M2

d atri3: Soli/

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

Client Sample ID: RC4-SC-1x

Date Collecte/ : 8172x7Mx2:25

Date Recei6e/ : 817217M8M88

Lab Sample ID: 208-9580M2

d atri3: Soli/

Bercent Soli/ A: MDN

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5035			10.21 g	10 mL	366569	03/23/17 10:21	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	366591	03/23/17 12:56	TEM	TAL DEN
Total/NA	Prep	3546			30.4 g	1 mL	366556	03/23/17 10:00	JRA	TAL DEN
Total/NA	Analysis	8015C		1			366592	03/23/17 16:36	TEM	TAL DEN

Client Sample ID: RC4-SC-12

Date Collecte/ : 8172x7Mx1:88

Date Recei6e/ : 817217M8M88

Lab Sample ID: 208-9580M1

d atri3: Soli/

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

Client Sample ID: RC4-SC-12

Date Collecte/ : 8172x7Mx1:88

Date Recei6e/ : 817217M8M88

Lab Sample ID: 208-9580M1

d atri3: Soli/

Bercent Soli/ A: M N

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5035			10.21 g	10 mL	366569	03/23/17 10:21	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

Client Sample ID: RC4-SC-12

Date Collecte/ : 8172x7Mx1:88

Date Recei6e/ : 817217M8M88

Lab Sample ID: 208-9580M-1

d atri3: Soli/

Bercent Soli/ A: M N

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	8015C		50	0.1 mL	5 mL	366712	03/24/17 09:45	TEM	TAL DEN
Total/NA	Prep	3546			31.5 g	2 mL	366556	03/23/17 10:00	JRA	TAL DEN
Total/NA	Analysis	8015C		10			366592	03/23/17 22:48	TEM	TAL DEN

Client Sample ID: RC4-SC-11

Date Collecte/ : 8172x7Mx1:85

Date Recei6e/ : 817217M8M88

Lab Sample ID: 208-9580M4

d atri3: Soli/

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

Client Sample ID: RC4-SC-11

Date Collecte/ : 8172x7Mx1:85

Date Recei6e/ : 817217M8M88

Lab Sample ID: 208-9580M4

d atri3: Soli/

Bercent Soli/ A: 0. N

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5035			10.11 g	10 mL	366569	03/23/17 10:21	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	366591	03/23/17 13:47	TEM	TAL DEN
Total/NA	Prep	3546			31.5 g	1 mL	366556	03/23/17 10:00	JRA	TAL DEN
Total/NA	Analysis	8015C		1			366592	03/23/17 18:29	TEM	TAL DEN

Client Sample ID: RC4-SC-14

Date Collecte/ : 8172x7Mx1:18

Date Recei6e/ : 817217M8M88

Lab Sample ID: 208-9580M5

d atri3: Soli/

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

Client Sample ID: RC4-SC-14

Date Collecte/ : 8172x7Mx1:18

Date Recei6e/ : 817217M8M88

Lab Sample ID: 208-9580M5

d atri3: Soli/

Bercent Soli/ A: 0xN

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5035			10.14 g	10 mL	366569	03/23/17 10:21	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	366591	03/23/17 14:13	TEM	TAL DEN
Total/NA	Prep	3546			30.1 g	1 mL	366556	03/23/17 10:00	JRA	TAL DEN
Total/NA	Analysis	8015C		1			366592	03/23/17 19:56	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

Client Sample ID: RC4-SC-15

Date Collecte/ : 8172x7Mx1:48

Date Recei6e/ : 817217xM8M88

Lab Sample ID: 208-9580M.

d atri3: Soli/

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

Client Sample ID: RC4-SC-15

Date Collecte/ : 8172x7Mx1:48

Date Recei6e/ : 817217xM8M88

Lab Sample ID: 208-9580M.

d atri3: Soli/

Bercent Soli/ A: MDN

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5035			10.19 g	10 mL	366569	03/23/17 10:21	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	366591	03/23/17 14:38	TEM	TAL DEN
Total/NA	Prep	3546			31.5 g	1 mL	366556	03/23/17 10:00	JRA	TAL DEN
Total/NA	Analysis	8015C		1			366592	03/23/17 20:25	TEM	TAL DEN

Client Sample ID: RC4-SC-1.

Date Collecte/ : 817227xMx. :45

Date Recei6e/ : 817217xM8M88

Lab Sample ID: 208-95x8Mx

d atri3: Soli/

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

Client Sample ID: RC4-SC-1.

Date Collecte/ : 817227xMx. :45

Date Recei6e/ : 817217xM8M88

Lab Sample ID: 208-95x8Mx

d atri3: Soli/

Bercent Soli/ A: 08N

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5030A			10.11 g	10 mL	366569	03/23/17 13:10	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	366591	03/23/17 15:04	TEM	TAL DEN
Total/NA	Prep	3546			30.2 g	1 mL	366556	03/23/17 13:15	JRA	TAL DEN
Total/NA	Analysis	8015C		1			366592	03/23/17 20:54	TEM	TAL DEN

Client Sample ID: RC4-SC-1M

Date Collecte/ : 817227xMxM88

Date Recei6e/ : 817217xM8M88

Lab Sample ID: 208-95x8M2

d atri3: Soli/

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

Client Sample ID: RC4-SC-1M

Date Collecte/ : 817227xMxM88

Date Recei6e/ : 817217xM8M88

Lab Sample ID: 208-95x8M2

d atri3: Soli/

Bercent Soli/ A: 0xN

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5030A			10.27 g	10 mL	366569	03/23/17 13:10	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

Client Sample ID: RC4-SC-1M

Date Collecte/ : 817227xMxM88

Date Recei6e/ : 817217xM8M88

Lab Sample ID: 208-95x8M2

d atri3: Soli/

Bercent Soli/ A: 0xM

Brep vTpe	y atch vTpe	y atch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	y atch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	366591	03/23/17 15:29	TEM	TAL DEN
Total/NA	Prep	3546			30.4 g	1 mL	366556	03/23/17 13:15	JRA	TAL DEN
Total/NA	Analysis	8015C		1			366592	03/23/17 21:22	TEM	TAL DEN

LaboratorT ReferenceA:

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

Certification Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94086-1

Laboratory: TestAmerica Denver

All certifications for this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD 7LAP		2906.01	10-E1-16
A2LA	ISO/IEC 16024		2906.01	10-E1-16
Alabama	State Program	3	306E0	09-E0-12 5
Alaska k STU	State Program	10	(ST-E0	03-04-16
Arizona	State Program	9	Az061E	12-20-16
Arkansas D7Z	State Program	Q	88-0Q86	0Q01-16
California	State Program	9	241E	01-08-18 5
Connecticut	State Program	1	PH-0Q8Q	09-E0-18
Florida	N7LAP	3	786Q86	0Q-E0-16
Georgia	State Program	3	N/A	01-08-18
Illinois	N7LAP	4	200016	03-E0-16
Iowa	State Program	6	E60	12-01-18 5
Kansas	N7LAP	6	7-101Q	03-E0-16
Louisiana	N7LAP	Q	0209Q	0Q-E0-16
Maine	State Program	1	CO0002	0E-0E-19
Minnesota	N7LAP	4	8-999-304	12-E1-16 5
Nevada	State Program	9	CO002Q	06-E1-16
New Hampshire	N7LAP	1	204E10	03-28-16
New Jersey	N7LAP	2	CO003	0Q-E0-16
New York	N7LAP	2	119Q8	03-01-16
North Carolina WWW/SWU	State Program	3	E48	12-E1-16
North Dakota	State Program	8	R-0E3	01-09-18
Oklahoma	State Program	Q	8Q13	08-E1-16
Oregon	N7LAP	10	3024	01-08-18
Pennsylvania	N7LAP	E	Q8-00Q8	06-E1-16
South Carolina	State Program	3	62002001	01-09-16 5
Texas	N7LAP	Q	T10360318E-1Q-12	09-E0-16
(SDA	Federal		PEE0-1Q-00E96	12-14-19
(taf	N7LAP	8	CO0002Q	06-E1-16
Virginia	N7LAP	E	3Q02E2	0Q-13-16
Washington	State Program	10	C48E	08-02-16
West Virginia D7P	State Program	E	E43	11-E0-16
Wisconsin	State Program	4	999Q143E0	08-E1-16
Wyoming k STU	A2LA	8	2906.01	10-E1-16

5Certification renewal pending - certification considered valid.


TestAmerica Denver

Chain of Custody Record

Arvada, CO 80002-4517
phone 303.736.0100 fax 303.431.7171

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Bethany Lucente		Site Contact: Bethany Lucente		Date:		COC No:	
Tel/Fax: (303) 250-4718		Lab Contact: Jamie Ide		Carrier: Courier				of COCs	
Denver, CO 80222		Analysis Turnaround Time		PAHs 8270D SIM		Moisture		Sampler:	
		TAT if different from Below		DRO, ORO w/ SGHEM		pH 9045D		For Lab Use Only:	
		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		ORO-TEPH 8015C		Hg 7471A		Walk-in Client:	
		ASAP		GRO-TEPH 8015C		EC/SAR		Lab Sampling:	
		<input type="checkbox"/> 2 weeks		BTEX 8260B		Metals 6010C		Job / SDG No.:	
		<input type="checkbox"/> 1 week		Perform MS/MSD (Y/N)		Filtered Sample (Y/N)			
		<input type="checkbox"/> 2 days		Sample Date		Sample Time			
		<input checked="" type="checkbox"/> 1 day		Sample Type (C=Comp, G=Grab)		Matrix		# of Cont.	
RC4-SC-30	3/21/17 12:15	g	SP	1					2 ppm
RC4-SC-31	3/21/17 12:35	g	SP	1					2 ppm
RC4-SC-32	3/21/17 13:00	g	SP	1					270 ppm
RC4-SC-33	3/21/17 13:05	g	SP	1					26 ppm
RC4-SC-34	3/21/17 13:30	g	SP	1					36 ppm
RC4-SC-35	3/21/17 13:40	g	SP	1					4 ppm
 280-95087 Chain of Custody									
Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other									
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.									
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown									
Special Instructions/QC Requirements & Comments:									
Metals include Ba, B, Cd, Cr, Cu, Pb, Ni, Se, Ag, Zn									
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd:		Corrd:		Therm ID No.:	
Relinquished by: <i>Kyle Lawrence</i>		Company: CTEH		Received by: <i>Ten Madgen</i>		Company: <i>Stark</i>		Date/Time: 3/22/17 @ 13:15	
Relinquished by: <i>St</i>		Company:		Received by: <i>Jessal Holt</i>		Company: TUD		Date/Time: 3-23-17 07:00	
Relinquished by:		Company:		Received in Laboratory by:		Company:		Date/Time:	

TestAmerica Laboratories, Inc.

[illegible]

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-95087-1

Login Number: 95087

List Number: 1

Creator: Ide, Jamie N

List Source: TestAmerica Denver

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-95087-1

Login Number: 95107

List Source: TestAmerica Denver

List Number: 1

Creator: True, Joshua A

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver

4955 Yarrow Street

Arvada, CO 80002

Tel: (303)736-0100

TestAmerica Job ID: 280-95087-1

Client Project/Site: Stantec CVX - Rangely, CO

Revision: 1

For:

Stantec Consulting Corp.

2000 South Colorado Blvd

Suite 2-300

Denver, Colorado 80222

Attn: Ms. Bethany Lucente



Authorized for release by:

4/5/2017 4:49:56 PM

Jamie Ide, Project Manager I

(303)736-0126

jamie.ide@testamericainc.com

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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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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

Qualifiers

GC SmV

Qualifier	Qualifier Description
X	Surrogate is outside control limits
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.

GC cep i SmV

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
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These are the only abbreviations that 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, 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)

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

Job ID: 280-95081-4

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Stantec Consulting Corp.
Project: Stantec CVX - Rangely, CO
Report Number: 280-95081-4

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.

REVISION - / 541

Per client request 3/31/17, the ORO originally requested on the chain of custody was removed from the analytical report.

RECEIPT

The samples were received on 3/23/2017 7:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.5° C and 4.5° C.

GASOLINE RANGE ORGANICS (GRO)

a,a,a-Trifluorotoluene failed the surrogate recovery criteria low for RC4-SC-36 (280-95107-1), RC4-SC-30 (280-95087-1), RC4-SC-31 (280-95087-2), RC4-SC-32 (280-95087-3), RC4-SC-34 (280-95087-5), and RC4-SC-35 (280-95087-6).. Each sample had high moisture content with the exception of sample RC4-SC-32 (280-95087-3). Due to interference or analytes present at high concentrations, sample RC4-SC-32 (280-95087-3) was diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required. The surrogate recoveries are calculated from diluted samples and in some cases are diluted below reportable limits.

a,a,a-Trifluorotoluene failed the surrogate recovery criteria low for RC4-SC-37 (280-95107-2), RC4-SC-33 (280-95087-4) and RC4-SC-33MS (280-95087-4MS). There is no obvious matrix to explain the failure. Due to the needs of the client, the data is being reported. If the client requires re-extraction, please notify the laboratory.

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

DIESEL RANGE ORGANICS

The initial aliquot and surrogate aliquot used for extraction of the following sample was split between two extraction vessels with the routine volume of solvent added to each vessel: RC4-SC-36 (280-95107-1) and RC4-SC-37 (280-95107-2). After the extraction, the extracts from both vessels were combined and concentrated. This was done due to first attempt at extraction in one tube caused the tube to vent.

Due to the matrix, the following sample could not be concentrated to the final method required volume: RC4-SC-32 (280-95087-3). The reporting limits (RLs) are elevated proportionately. Adjusted volume 2 mL

o-Terphenyl failed the surrogate recovery criteria high for RC4-SC-32 (280-95087-3). 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. The surrogate recoveries are calculated from diluted samples and in some cases are diluted below reportable limits.

The MS/MSD performed on sample RC4-SC-33 (280-95087-4) exhibited spike recoveries outside QC control limits for DRO (C10-C28). The associated LCS was in control and demonstrates that operating procedures were in control. No further action was required.

Sample RC4-SC-32 (280-95087-3)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

Job ID: 280-95081-4 (Continued)

Laboratory: TestAmerica Denver (Continued)

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

PERCENT SOLIDS

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

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

Client Sample ID: RC4-SC-30

Lab Sample ID: 280-95087-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
DRO (C10-C28)	6.6		4.9	0.83	mg/Kg	1	☼	8015C	Total/NA

Client Sample ID: RC4-SC-31

Lab Sample ID: 280-95087-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	4.4		1.5	0.41	mg/Kg	1	☼	8015C	Total/NA
DRO (C10-C28)	44		5.1	0.86	mg/Kg	1	☼	8015C	Total/NA

Client Sample ID: RC4-SC-32

Lab Sample ID: 280-95087-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	1300		77	21	mg/Kg	50	☼	8015C	Total/NA
DRO (C10-C28)	23000		100	17	mg/Kg	10	☼	8015C	Total/NA

Client Sample ID: RC4-SC-33

Lab Sample ID: 280-95087-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	5.9		1.4	0.37	mg/Kg	1	☼	8015C	Total/NA
DRO (C10-C28)	260	F1	4.4	0.75	mg/Kg	1	☼	8015C	Total/NA

Client Sample ID: RC4-SC-34

Lab Sample ID: 280-95087-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	11		1.4	0.39	mg/Kg	1	☼	8015C	Total/NA
DRO (C10-C28)	400		4.9	0.83	mg/Kg	1	☼	8015C	Total/NA

Client Sample ID: RC4-SC-35

Lab Sample ID: 280-95087-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	2.6		1.5	0.41	mg/Kg	1	☼	8015C	Total/NA
DRO (C10-C28)	160		4.9	0.82	mg/Kg	1	☼	8015C	Total/NA

Client Sample ID: RC4-SC-36

Lab Sample ID: 280-95107-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	4.3		1.5	0.40	mg/Kg	1	☼	8015C	Total/NA
DRO (C10-C28)	170		5.0	0.84	mg/Kg	1	☼	8015C	Total/NA

Client Sample ID: RC4-SC-37

Lab Sample ID: 280-95107-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	27		1.4	0.39	mg/Kg	1	☼	8015C	Total/NA
DRO (C10-C28)	220		4.8	0.82	mg/Kg	1	☼	8015C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94087-6

Method	Method Description	Protocol	Laboratory
8064C	Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	SW815	TAL DEN
8064C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW815	TAL DEN
Moisture	Percent Moisture	EPA	TAL DEN

Protocol References:

EPA = " S Environmental Protection Agency

SW815 = UTest Methods For Evaluating Solid Waste, Physical/Chemical MethodsU Third Edition, November 6985 And Its " pdates.

Laboratory References:

TAL DEN = TestAmerica Denver, 1944 Yarrow Street, Arvada, CO 80002, TEL (303)735-0600

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95081-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-95081-4	RCd-SC-30	Soli7	03/24/41 42:45	03/23/41 01:00
280-95081-2	RCd-SC-34	Soli7	03/24/41 42:25	03/23/41 01:00
280-95081-3	RCd-SC-32	Soli7	03/24/41 43:00	03/23/41 01:00
280-95081-d	RCd-SC-33	Soli7	03/24/41 43:05	03/23/41 01:00
280-95081-5	RCd-SC-3d	Soli7	03/24/41 43:30	03/23/41 01:00
280-95081-6	RCd-SC-35	Soli7	03/24/41 43:d0	03/23/41 01:00
280-95401-4	RCd-SC-36	Soli7	03/22/41 46:d5	03/23/41 01:00
280-95401-2	RCd-SC-31	Soli7	03/22/41 41:00	03/23/41 01:00

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95081-4

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-SC-30
Date Collected: 03/21/17 12:15
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-1
Matrix: Solid
Percent Solids: 78.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 RO IC7-C406	v D		4.5	0.04	mg/(g	☼	0)/2)/41 40:24	0)/2)/41 42:) 4	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	14	9	11 - D X				7X2 XD13D70 D	7X2 XD13D 0X0	D

Client Sample ID: RC4-SC-31
Date Collected: 03/21/17 12:25
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-2
Matrix: Solid
Percent Solids: 78.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	4.4		4.5	0.04	mg/(g	☼	0)/2)/41 40:24	0)/2)/41 42:57	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	1/	9	11 - D X				7X2 XD13D70 D	7X2 XD13D 0 :	D

Client Sample ID: RC4-SC-32
Date Collected: 03/21/17 13:00
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-3
Matrix: Solid
Percent Solids: 76.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	1300		11	24	mg/(g	☼	0)/2)/41 40:24	0)/2G41 09:05	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	7	53	11 - D X				7X2 XD13D70 D	7X2 4D13804/	/7

Client Sample ID: RC4-SC-33
Date Collected: 03/21/17 13:05
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-4
Matrix: Solid
Percent Solids: 86.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	5.9		4.6	0.) 1	mg/(g	☼	0)/2)/41 40:24	0)/2)/41 4):G1	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	: 8	9	11 - D X				7X2 XD13D70 D	7X2 XD13DX041	D

Client Sample ID: RC4-SC-34
Date Collected: 03/21/17 13:30
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-5
Matrix: Solid
Percent Solids: 81.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	11		4.6	0.) 9	mg/(g	☼	0)/2)/41 40:24	0)/2)/41 4G4)	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	17	9	11 - D X				7X2 XD13D70 D	7X2 XD13D4DX	D

Client Sample ID: RC4-SC-35
Date Collected: 03/21/17 13:40
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-6
Matrix: Solid
Percent Solids: 78.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	2.6		4.5	0.04	mg/(g	☼	0)/2)/41 40:24	0)/2)/41 4G:) 8	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	: 1	9	11 - D X				7X2 XD13D70 D	7X2 XD13D40X6	D

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95081-4

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-SC-36
Date Collected: 03/22/17 16:45
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95107-1
Matrix: Solid
Percent Solids: 80.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	4.3		4.5	0.00	mg/(g	☼	0)/2)/41 4):40	0)/2)/41 45:0G	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	4	9	11 - D X				7X2 XD13D7	7X2 XD13D7	D

Client Sample ID: RC4-SC-37
Date Collected: 03/22/17 17:00
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95107-2
Matrix: Solid
Percent Solids: 81.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	27		4.6	0.) 9	mg/(g	☼	0)/2)/41 4):40	0)/2)/41 45:29	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	1:	9	11 - D X				7X2 XD13D7	7X2 XD13D7 0 8	D

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-SC-30
Date Collected: 03/21/17 12:15
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-1
Matrix: Solid
Percent Solids: 78.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	6.6		G9	0.8)	mg/(g	☼	0)/2)/41 40:00	0)/2)/41 47:01	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	X		48 - DD				7X2 XD13D7	7X2 XD13D7	D

Client Sample ID: RC4-SC-31
Date Collected: 03/21/17 12:25
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-2
Matrix: Solid
Percent Solids: 78.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	44		5.4	0.87	mg/(g	☼	0)/2)/41 40:00	0)/2)/41 47:7	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	16		48 - DD				7X2 XD13D7	7X2 XD13D7	D

Client Sample ID: RC4-SC-32
Date Collected: 03/21/17 13:00
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-3
Matrix: Solid
Percent Solids: 76.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	23000		400	41	mg/(g	☼	0)/2)/41 40:00	0)/2)/41 22:G8	40
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	XD87	9.35	48 - DD				7X2 XD13D7	7X2 XD13D7 0 6	D7

Client Sample ID: RC4-SC-33
Date Collected: 03/21/17 13:05
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-4
Matrix: Solid
Percent Solids: 86.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	260	F1	GG	0.15	mg/(g	☼	0)/2)/41 40:00	0)/2)/41 48:29	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	81		48 - DD				7X2 XD13D7	7X2 XD13D7 0 8	D

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95081-4

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-SC-34
Date Collected: 03/21/17 13:30
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-5
Matrix: Solid
Percent Solids: 81.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	400		G9	0.8)	mg/(g	☼	0)/2)/41 40:00	0)/2)/41 49:57	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	88		48 - DD				7X2 XD13D707	7X2 XD13D807	D

Client Sample ID: RC4-SC-35
Date Collected: 03/21/17 13:40
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-6
Matrix: Solid
Percent Solids: 78.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	160		G9	0.82	mg/(g	☼	0)/2)/41 40:00	0)/2)/41 20:25	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	: 6		48 - DD				7X2 XD13D707	7X2 XD13 70 /	D

Client Sample ID: RC4-SC-36
Date Collected: 03/22/17 16:45
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95107-1
Matrix: Solid
Percent Solids: 80.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	170		5.0	0.8G	mg/(g	☼	0)/2)/41 4):45	0)/2)/41 20:5G	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	68		48 - DD				7X2 XD13DXD	7X2 XD13 70 / 4	D

Client Sample ID: RC4-SC-37
Date Collected: 03/22/17 17:00
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95107-2
Matrix: Solid
Percent Solids: 81.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	220		G8	0.82	mg/(g	☼	0)/2)/41 4):45	0)/2)/41 24:22	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	67		48 - DD				7X2 XD13DXD	7X2 XD13 D0	D

General Chemistry

Client Sample ID: RC4-SC-30
Date Collected: 03/21/17 12:15
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-1
Matrix: Solid
Percent Solids: 78.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21.1		0.4	0.4	%			0)/2)/41 09:54	4
Percent Solids	78.9		0.4	0.4	%			0)/2)/41 09:54	4

Client Sample ID: RC4-SC-31
Date Collected: 03/21/17 12:25
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-2
Matrix: Solid
Percent Solids: 78.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21.9		0.4	0.4	%			0)/2)/41 09:54	4
Percent Solids	78.1		0.4	0.4	%			0)/2)/41 09:54	4

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95081-4

General Chemistry

Client Sample ID: RC4-SC-32
Date Collected: 03/21/17 13:00
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-3
Matrix: Solid
Percent Solids: 76.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23.5		0.4	0.4	%			0)/2)/41 09:54	4
Percent Solids	76.5		0.4	0.4	%			0)/2)/41 09:54	4

Client Sample ID: RC4-SC-33
Date Collected: 03/21/17 13:05
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-4
Matrix: Solid
Percent Solids: 86.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.9		0.4	0.4	%			0)/2)/41 09:54	4
Percent Solids	86.1		0.4	0.4	%			0)/2)/41 09:54	4

Client Sample ID: RC4-SC-34
Date Collected: 03/21/17 13:30
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-5
Matrix: Solid
Percent Solids: 81.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.2		0.4	0.4	%			0)/2)/41 09:54	4
Percent Solids	81.8		0.4	0.4	%			0)/2)/41 09:54	4

Client Sample ID: RC4-SC-35
Date Collected: 03/21/17 13:40
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-6
Matrix: Solid
Percent Solids: 78.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21.6		0.4	0.4	%			0)/2)/41 09:54	4
Percent Solids	78.4		0.4	0.4	%			0)/2)/41 09:54	4

Client Sample ID: RC4-SC-36
Date Collected: 03/22/17 16:45
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95107-1
Matrix: Solid
Percent Solids: 80.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.0		0.4	0.4	%			0)/2)/41 09:54	4
Percent Solids	80.0		0.4	0.4	%			0)/2)/41 09:54	4

Client Sample ID: RC4-SC-37
Date Collected: 03/22/17 17:00
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95107-2
Matrix: Solid
Percent Solids: 81.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.2		0.4	0.4	%			0)/2)/41 09:54	4
Percent Solids	81.8		0.4	0.4	%			0)/2)/41 09:54	4

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95081-4

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	TFT1 (77-123)
280-95081-4	RC3-SC-70	13 X
280-95081-2	RC3-SC-74	15 X
280-95081-7	RC3-SC-72	0 D X
280-95081-3	RC3-SC-77	69 X
280-95081-3 L S	RC3-SC-77	13 X
280-95081-3 L SD	RC3-SC-77	80
280-95081-5	RC3-SC-73	10 X
280-95081-6	RC3-SC-75	61 X
280-95401-4	RC3-SC-76	63 X
280-95401-2	RC3-SC-71	16 X
MCS 280-766569/2-A	Lab Control Sample	97
L B 280-766569/4-A	Lab Method Blank	94

Surrogate Legend

TFT = a,a,a-Trifluorotoluene

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	OTPH1 (49-115)
280-95081-4	RC3-SC-70	67
280-95081-2	RC3-SC-74	18
280-95081-7	RC3-SC-72	7490 X D
280-95081-3	RC3-SC-77	91
280-95081-3 L S	RC3-SC-77	400
280-95081-3 L SD	RC3-SC-77	98
280-95081-5	RC3-SC-73	99
280-95081-6	RC3-SC-75	68
280-95401-4	RC3-SC-76	89
280-95401-2	RC3-SC-71	80
MCS 280-766556/2-A	Lab Control Sample	82
L B 280-766556/4-A	Lab Method Blank	84

Surrogate Legend

OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Lab Sample ID: MB 280-366569/1-A

Matrix: Solid

Analysis Batch: 366591

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 366569

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.2	0.33	mg/Kg		03/23/17 10:21	03/23/17 11:40	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	94		77 - 412				3/20/17 4/3 14	3/20/17 4/4 3	4

Lab Sample ID: LCS 280-366569/2-A

Matrix: Solid

Analysis Batch: 366591

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 366569

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
GRO (C6-C10)	5.50	6.76		mg/Kg		123	85 - 153
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
a,a,a-Trifluorotoluene	92		77 - 412				

Lab Sample ID: 280-95087-4 MS

Matrix: Solid

Analysis Batch: 366591

Client Sample ID: RC4-SC-33

Prep Type: Total/NA

Prep Batch: 366569

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
GRO (C6-C10)	5.9		6.38	13.1		mg/Kg	✖	113	85 - 153
Surrogate	MS %Recovery	MS Qualifier	Limits						
a,a,a-Trifluorotoluene	7	5	77 - 412						

Lab Sample ID: 280-95087-4 MSD

Matrix: Solid

Analysis Batch: 366591

Client Sample ID: RC4-SC-33

Prep Type: Total/NA

Prep Batch: 366569

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
GRO (C6-C10)	5.9		6.32	12.4		mg/Kg	✖	104	85 - 153	5	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
a,a,a-Trifluorotoluene	p3		77 - 412								

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 280-366556/1-A

Matrix: Solid

Analysis Batch: 366592

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 366556

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		4.0	0.68	mg/Kg		03/23/17 10:00	03/23/17 15:09	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	p4		: 9 - 44X				3/20/17 4/3 33	3/20/17 4/X 39	4

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: LCS 280-366556/2-A

Matrix: Solid

Analysis Batch: 366592

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 366556

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
DRO (C10-C28)	66.7	63.6		mg/Kg		95	53 - 115
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
<i>o</i> -Terhyen(I/S urr8	p1		: 9 - 44X				

Lab Sample ID: 280-95087-4 MS

Matrix: Solid

Analysis Batch: 366592

Client Sample ID: RC4-SC-33

Prep Type: Total/NA

Prep Batch: 366556

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28)	260	F1	73.0	298		mg/Kg	☼	56	56 - 115		
Surrogate	MS %Recovery	MS Qualifier	Limits								
<i>o</i> -Terhyen(I/S urr8	433		: 9 - 44X								

Lab Sample ID: 280-95087-4 MSD

Matrix: Solid

Analysis Batch: 366592

Client Sample ID: RC4-SC-33

Prep Type: Total/NA

Prep Batch: 366556

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
DRO (C10-C28)	260	F1	73.9	273	F1	mg/Kg	✱	20	56 - 115	9	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
<i>o</i> -Terhyen(I/S urr8	9p		: 9 - 44X								

Method: Moisture - Percent Moisture

Lab Sample ID: 280-95087-6 DU

Matrix: Solid

Analysis Batch: 366567

Client Sample ID: RC4-SC-35

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Percent Moisture	21.6		21.6		%		0	20
Percent Solids	78.4		78.4		%		0	20

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

GC VOA

Prep Batch: 366569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95087-1	RC4-SC-30	Total/NA	Solid	5035	
280-95087-2	RC4-SC-31	Total/NA	Solid	5035	
280-95087-3	RC4-SC-32	Total/NA	Solid	5035	
280-95087-4	RC4-SC-33	Total/NA	Solid	5035	
280-95087-5	RC4-SC-34	Total/NA	Solid	5035	
280-95087-6	RC4-SC-35	Total/NA	Solid	5035	
280-95107-1	RC4-SC-36	Total/NA	Solid	5030A	
280-95107-2	RC4-SC-37	Total/NA	Solid	5030A	
MB 280-366569/1-A	Method Blank	Total/NA	Solid	5030A	
LCS 280-366569/2-A	Lab Control Sample	Total/NA	Solid	5030A	
280-95087-4 MS	RC4-SC-33	Total/NA	Solid	5035	
280-95087-4 MSD	RC4-SC-33	Total/NA	Solid	5035	

Analysis Batch: 366591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95087-1	RC4-SC-30	Total/NA	Solid	8015C	366569
280-95087-2	RC4-SC-31	Total/NA	Solid	8015C	366569
280-95087-4	RC4-SC-33	Total/NA	Solid	8015C	366569
280-95087-5	RC4-SC-34	Total/NA	Solid	8015C	366569
280-95087-6	RC4-SC-35	Total/NA	Solid	8015C	366569
280-95107-1	RC4-SC-36	Total/NA	Solid	8015C	366569
280-95107-2	RC4-SC-37	Total/NA	Solid	8015C	366569
MB 280-366569/1-A	Method Blank	Total/NA	Solid	8015C	366569
LCS 280-366569/2-A	Lab Control Sample	Total/NA	Solid	8015C	366569
280-95087-4 MS	RC4-SC-33	Total/NA	Solid	8015C	366569
280-95087-4 MSD	RC4-SC-33	Total/NA	Solid	8015C	366569

Analysis Batch: 366712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95087-3	RC4-SC-32	Total/NA	Solid	8015C	366569

GC Semi VOA

Prep Batch: 366556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95087-1	RC4-SC-30	Total/NA	Solid	3546	
280-95087-2	RC4-SC-31	Total/NA	Solid	3546	
280-95087-3	RC4-SC-32	Total/NA	Solid	3546	
280-95087-4	RC4-SC-33	Total/NA	Solid	3546	
280-95087-5	RC4-SC-34	Total/NA	Solid	3546	
280-95087-6	RC4-SC-35	Total/NA	Solid	3546	
280-95107-1	RC4-SC-36	Total/NA	Solid	3546	
280-95107-2	RC4-SC-37	Total/NA	Solid	3546	
MB 280-366556/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-366556/2-A	Lab Control Sample	Total/NA	Solid	3546	
280-95087-4 MS	RC4-SC-33	Total/NA	Solid	3546	
280-95087-4 MSD	RC4-SC-33	Total/NA	Solid	3546	

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

GC Semi VOA (Continued)

Analysis Batch: 366592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95087-1	RC4-SC-30	Total/NA	Solid	8015C	366556
280-95087-2	RC4-SC-31	Total/NA	Solid	8015C	366556
280-95087-3	RC4-SC-32	Total/NA	Solid	8015C	366556
280-95087-4	RC4-SC-33	Total/NA	Solid	8015C	366556
280-95087-5	RC4-SC-34	Total/NA	Solid	8015C	366556
280-95087-6	RC4-SC-35	Total/NA	Solid	8015C	366556
280-95107-1	RC4-SC-36	Total/NA	Solid	8015C	366556
280-95107-2	RC4-SC-37	Total/NA	Solid	8015C	366556
MB 280-366556/1-A	Method Blank	Total/NA	Solid	8015C	366556
LCS 280-366556/2-A	Lab Control Sample	Total/NA	Solid	8015C	366556
280-95087-4 MS	RC4-SC-33	Total/NA	Solid	8015C	366556
280-95087-4 MSD	RC4-SC-33	Total/NA	Solid	8015C	366556

General Chemistry

Analysis Batch: 366567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95087-1	RC4-SC-30	Total/NA	Solid	Moisture	
280-95087-2	RC4-SC-31	Total/NA	Solid	Moisture	
280-95087-3	RC4-SC-32	Total/NA	Solid	Moisture	
280-95087-4	RC4-SC-33	Total/NA	Solid	Moisture	
280-95087-5	RC4-SC-34	Total/NA	Solid	Moisture	
280-95087-6	RC4-SC-35	Total/NA	Solid	Moisture	
280-95107-1	RC4-SC-36	Total/NA	Solid	Moisture	
280-95107-2	RC4-SC-37	Total/NA	Solid	Moisture	
280-95087-6 DU	RC4-SC-35	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

Client Sample ID: RC4-SC-18

Date Collecte/ : 8172x7Mx2:x5

Date Recei6e/ : 817217M8M88

Lab Sample ID: 208-9580Mx

d atri3: Soli/

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

Client Sample ID: RC4-SC-18

Date Collecte/ : 8172x7Mx2:x5

Date Recei6e/ : 817217M8M88

Lab Sample ID: 208-9580Mx

d atri3: Soli/

Bercent Soli/ A: MDN

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5035			10.04 g	10 mL	366569	03/23/17 10:21	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	366591	03/23/17 12:31	TEM	TAL DEN
Total/NA	Prep	3546			31.0 g	1 mL	366556	03/23/17 10:00	JRA	TAL DEN
Total/NA	Analysis	8015C		1			366592	03/23/17 16:07	TEM	TAL DEN

Client Sample ID: RC4-SC-1x

Date Collecte/ : 8172x7Mx2:25

Date Recei6e/ : 817217M8M88

Lab Sample ID: 208-9580M2

d atri3: Soli/

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

Client Sample ID: RC4-SC-1x

Date Collecte/ : 8172x7Mx2:25

Date Recei6e/ : 817217M8M88

Lab Sample ID: 208-9580M2

d atri3: Soli/

Bercent Soli/ A: MDN

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5035			10.21 g	10 mL	366569	03/23/17 10:21	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	366591	03/23/17 12:56	TEM	TAL DEN
Total/NA	Prep	3546			30.4 g	1 mL	366556	03/23/17 10:00	JRA	TAL DEN
Total/NA	Analysis	8015C		1			366592	03/23/17 16:36	TEM	TAL DEN

Client Sample ID: RC4-SC-12

Date Collecte/ : 8172x7Mx1:88

Date Recei6e/ : 817217M8M88

Lab Sample ID: 208-9580M1

d atri3: Soli/

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

Client Sample ID: RC4-SC-12

Date Collecte/ : 8172x7Mx1:88

Date Recei6e/ : 817217M8M88

Lab Sample ID: 208-9580M1

d atri3: Soli/

Bercent Soli/ A: M N

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5035			10.21 g	10 mL	366569	03/23/17 10:21	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

Client Sample ID: RC4-SC-12

Date Collecte/ : 8172x7Mx1:88

Date Recei6e/ : 817217M8M88

Lab Sample ID: 208-9580M-1

d atri3: Soli/

Bercent Soli/ A: M N

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	8015C		50	0.1 mL	5 mL	366712	03/24/17 09:45	TEM	TAL DEN
Total/NA	Prep	3546			31.5 g	2 mL	366556	03/23/17 10:00	JRA	TAL DEN
Total/NA	Analysis	8015C		10			366592	03/23/17 22:48	TEM	TAL DEN

Client Sample ID: RC4-SC-11

Date Collecte/ : 8172x7Mx1:85

Date Recei6e/ : 817217M8M88

Lab Sample ID: 208-9580M-4

d atri3: Soli/

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

Client Sample ID: RC4-SC-11

Date Collecte/ : 8172x7Mx1:85

Date Recei6e/ : 817217M8M88

Lab Sample ID: 208-9580M-4

d atri3: Soli/

Bercent Soli/ A: 0. N

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5035			10.11 g	10 mL	366569	03/23/17 10:21	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	366591	03/23/17 13:47	TEM	TAL DEN
Total/NA	Prep	3546			31.5 g	1 mL	366556	03/23/17 10:00	JRA	TAL DEN
Total/NA	Analysis	8015C		1			366592	03/23/17 18:29	TEM	TAL DEN

Client Sample ID: RC4-SC-14

Date Collecte/ : 8172x7Mx1:18

Date Recei6e/ : 817217M8M88

Lab Sample ID: 208-9580M-5

d atri3: Soli/

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

Client Sample ID: RC4-SC-14

Date Collecte/ : 8172x7Mx1:18

Date Recei6e/ : 817217M8M88

Lab Sample ID: 208-9580M-5

d atri3: Soli/

Bercent Soli/ A: 0xN

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5035			10.14 g	10 mL	366569	03/23/17 10:21	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	366591	03/23/17 14:13	TEM	TAL DEN
Total/NA	Prep	3546			30.1 g	1 mL	366556	03/23/17 10:00	JRA	TAL DEN
Total/NA	Analysis	8015C		1			366592	03/23/17 19:56	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

Client Sample ID: RC4-SC-15

Date Collecte/ : 8172x7Mx1:48

Date Recei6e/ : 817217xM8M88

Lab Sample ID: 208-9580M.

d atri3: Soli/

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

Client Sample ID: RC4-SC-15

Date Collecte/ : 8172x7Mx1:48

Date Recei6e/ : 817217xM8M88

Lab Sample ID: 208-9580M.

d atri3: Soli/

Bercent Soli/ A: MDN

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5035			10.19 g	10 mL	366569	03/23/17 10:21	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	366591	03/23/17 14:38	TEM	TAL DEN
Total/NA	Prep	3546			31.5 g	1 mL	366556	03/23/17 10:00	JRA	TAL DEN
Total/NA	Analysis	8015C		1			366592	03/23/17 20:25	TEM	TAL DEN

Client Sample ID: RC4-SC-1.

Date Collecte/ : 817227xMx. :45

Date Recei6e/ : 817217xM8M88

Lab Sample ID: 208-95x8Mx

d atri3: Soli/

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

Client Sample ID: RC4-SC-1.

Date Collecte/ : 817227xMx. :45

Date Recei6e/ : 817217xM8M88

Lab Sample ID: 208-95x8Mx

d atri3: Soli/

Bercent Soli/ A: 08N

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5030A			10.11 g	10 mL	366569	03/23/17 13:10	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	366591	03/23/17 15:04	TEM	TAL DEN
Total/NA	Prep	3546			30.2 g	1 mL	366556	03/23/17 13:15	JRA	TAL DEN
Total/NA	Analysis	8015C		1			366592	03/23/17 20:54	TEM	TAL DEN

Client Sample ID: RC4-SC-1M

Date Collecte/ : 817227xMxM88

Date Recei6e/ : 817217xM8M88

Lab Sample ID: 208-95x8M2

d atri3: Soli/

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

Client Sample ID: RC4-SC-1M

Date Collecte/ : 817227xMxM88

Date Recei6e/ : 817217xM8M88

Lab Sample ID: 208-95x8M2

d atri3: Soli/

Bercent Soli/ A: 0xN

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5030A			10.27 g	10 mL	366569	03/23/17 13:10	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

Client Sample ID: RC4-SC-1M

Date Collecte/ : 817227xMxM88

Date Recei6e/ : 817217xM8M88

Lab Sample ID: 208-95x8M2

d atri3: Soli/

Bercent Soli/ A: 0xN

Brep vTpe	y atch vTpe	y atch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	y atch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	366591	03/23/17 15:29	TEM	TAL DEN
Total/NA	Prep	3546			30.4 g	1 mL	366556	03/23/17 13:15	JRA	TAL DEN
Total/NA	Analysis	8015C		1			366592	03/23/17 21:22	TEM	TAL DEN

LaboratorT ReferenceA:

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

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94086-1

Laboratory: TestAmerica Denver

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
A2LA	DoD 7LAP		2906.01	10-E1-16
A2LA	ISO/17 C 16024		2906.01	10-E1-16
Alabama	State Program	3	306E0	09-E0-12 5
Alaska STU	State Program	10	(ST-E0	03-04-18
Arizona	State Program	9	Az061E	12-20-16
Arkansas D7Z	State Program	Q	88-0Q86	0Q01-16
California	State Program	9	241E	01-08-18 5
Connecticut	State Program	1	PH-0Q8Q	09-E0-18
Florida	N7LAP	3	786Q86	0QE0-16
Georgia	State Program	3	N/A	01-08-18
Illinois	N7LAP	4	200016	03-E0-18
Iowa	State Program	6	E60	12-01-18 5
Kansas	N7LAP	6	7-101Q	03-E0-16 5
Louisiana	N7LAP	Q	0209Q	0QE0-16
Maine	State Program	1	CO0002	0E-0E-19
Minnesota	N7LAP	4	8-999-304	12-E1-16 5
Nevada	State Program	9	CO002Q	06-E1-16
New Hampshire	N7LAP	1	204E10	03-28-16
New Jersey	N7LAP	2	CO003	0QE0-16
New York	N7LAP	2	119Q8	03-01-18
North Carolina KWW/SWU	State Program	3	E48	12-E1-16
North Dakota	State Program	8	R-0E3	01-09-18
Oklahoma	State Program	Q	8Q13	08-E1-16
Oregon	N7LAP	10	3024	01-08-18
Pennsylvania	N7LAP	E	Q8-00Q8	06-E1-16
South Carolina	State Program	3	62002001	01-09-16 5
Texas	N7LAP	Q	T10360318E-1Q-12	09-E0-16
(SDA	Federal		PEE0-1Q-00E96	12-14-19
(tah	N7LAP	8	CO0002Q	06-E1-16
Virginia	N7LAP	E	3Q02E2	0Q13-16
Washington	State Program	10	C48E	08-02-16
West Virginia D7P	State Program	E	E43	11-E0-16
Wisconsin	State Program	4	999Q143E0	08-E1-16
Wyoming K STU	A2LA	8	2906.01	10-E1-16

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


TestAmerica Denver

Chain of Custody Record

TestAmerica Laboratories, Inc.

Arvada, CO 80002-4517
phone 303.736.0100 fax 303.431.7171

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Bethany Lucente		Site Contact: Bethany Lucente		Date:		COC No:												
Tel/Fax: (303) 250-4718		Lab Contact: Jamie Ide		Carrier: Courier				of COCs												
Denver, CO 80222		Analysis Turnaround Time		Analysis Turnaround Time				Sampler:												
		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS				For Lab Use Only:												
		TAT if different from Below		TAT if different from Below				Walk-in Client:												
		ASAP		ASAP				Lab Sampling:												
		<input type="checkbox"/> 2 weeks		<input type="checkbox"/> 2 weeks				Job / SDG No.:												
		<input type="checkbox"/> 1 week		<input type="checkbox"/> 1 week																
		<input type="checkbox"/> 2 days		<input type="checkbox"/> 2 days																
		<input checked="" type="checkbox"/> 1 day		<input checked="" type="checkbox"/> 1 day																
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	BTX 8260B	GRO-TEPH 8015C	DRO-TEPH 8015C	DRO-ORO W/SGHEM	PAHs 8270D SIM	EC/SAR	Metals 6010C	Hg 7471A	pH 9045D	Moisture	Crill/CVI 7196A	As 6020	Sample Specific Notes:
RC4-SC-30	3/21/17	12:15	G	SP	1			X	X	X										2 PPM
RC4-SC-31	3/21/17	12:35	G	SC	1			X	X	X										2 PPM
RC4-SC-32	3/21/17	13:00	G	SP	1			X	X	X										270 PPM
RC4-SC-33	3/21/17	13:05	G	SC	1			X	X	X										26 PPM
RC4-SC-34	3/21/17	13:30	G	SP	1			X	X	X										36 PPM
RC4-SC-35	3/21/17	13:40	G	SC	1			X	X	X										4 PPM
 280-95087 Chain of Custody																				
Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other																				
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.																				
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown																				
Special Instructions/QC Requirements & Comments:																				
Metals include Ba, B, Cd, Cr, Cu, Pb, Ni, Se, Ag, Zn																				
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd:		Corrd:		Therm ID No.:												
Relinquished by: <i>Kyle Lawrence</i>		Company: CTEH		Date/Time: 3/22/17 13:15		Received by: <i>Ten Madgren</i>		Company: <i>Stark</i>		Date/Time: 3/22/17 01315										
Relinquished by: <i>St</i>		Company:		Date/Time:		Received by: <i>Jessal Holt</i>		Company: TUD		Date/Time: 3-23-17 0700										
Relinquished by:		Company:		Date/Time:		Received in Laboratory by:		Company:		Date/Time:										

TestAmerica Laboratories, Inc.

[illegible]

4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100

Chain of Custody Record



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

[illegible]

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-95087-1

Login Number: 95087

List Number: 1

Creator: Ide, Jamie N

List Source: TestAmerica Denver

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-95087-1

Login Number: 95107

List Source: TestAmerica Denver

List Number: 1

Creator: True, Joshua A

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver

4955 Yarrow Street

Arvada, CO 80002

Tel: (303)736-0100

TestAmerica Job ID: 280-95087-2

Client Project/Site: Stantec CVX - Rangely, CO

For:

Stantec Consulting Corp.

2000 South Colorado Blvd

Suite 2-300

Denver, Colorado 80222

Attn: Ms. Bethany Lucente



Authorized for release by:

4/7/2017 3:00:01 PM

Jamie Ide, Project Manager I

(303)736-0126

jamie.ide@testamericainc.com

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www.testamericainc.com

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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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-2

Qualifiers

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance 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, 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)

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-2

Job ID: 280-95087-2

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Stantec Consulting Corp.
Project: Stantec CVX - Rangely, CO
Report Number: 280-95087-2

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 on 3/23/2017 7:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.5° C.

Per client request on 3/23/17, additional parameters were logged for samples RC4-SC-36 (280-95107-1) and RC4-SC-37 (280-95107-2), not requested on the chain of custody. The laboratory confirmed volume and logged the samples for analysis on 3/28/17. The additional parameters include: Ammonia, Nitrate, Total Nitrogen and Organic Nitrogen. Ammonium was also requested, however cannot be support for analysis in a soil matrix.

AMMONIA

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

TOTAL KJELDAHL NITROGEN

Nitrogen, Kjeldahl failed the recovery criteria low for the MS/MSD of sample RC4-SC-37 (280-95107-2). The associated LCS was in control; therefore, corrective action was not performed.

Sample RC4-SC-37 (280-95107-2)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

NITRATE-NITRITE AS NITROGEN

Nitrate Nitrite as N failed the recovery criteria low for the MS/MSD of sample RC4-SC-36 (280-95107-1). The associated LCS was in control; therefore, corrective action was not performed.

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

NITROGEN, NITRATE-NITRITE

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

TOTAL NITROGEN

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

NITROGEN, NITRITE

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

TOTAL NITROGEN

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

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-2

Client Sample ID: RC4-SC-30

Lab Sample ID: 289-5719M-1

s nalyte	ReQult f ualiUer	RL	ADL F nit	Dil hac	D AetdoP	Trep 6ype
Nitrogen, Kjeldahl	230	62	15 mg/Kg	1	351.2	Total/NA
Nitrate as N	54	1.2	0.037 mg/Kg	1	Nitrate by calc	Total/NA
Nitrogen, Total Organic	230	6.2	2.6 mg/Kg	1	Nitrogen,Org	Total/NA
Nitrogen, Total	270	1.2	1.2 mg/Kg	1	Total Nitrogen	Total/NA
Nitrate Nitrite as N	43 F1	1.2	0.41 mg/Kg	1	353.2	Soluble

Client Sample ID: RC4-SC-3M

Lab Sample ID: 289-5719M-2

s nalyte	ReQult f ualiUer	RL	ADL F nit	Dil hac	D AetdoP	Trep 6ype
Nitrogen, Kjeldahl	470 F1	120	29 mg/Kg	2	351.2	Total/NA
Nitrate as N	6.8	1.2	0.037 mg/Kg	1	Nitrate by calc	Total/NA
Nitrogen, Total Organic	470	6.1	2.5 mg/Kg	1	Nitrogen,Org	Total/NA
Nitrogen, Total	480	1.2	1.2 mg/Kg	1	Total Nitrogen	Total/NA
Nitrate Nitrite as N	5.6	1.2	0.42 mg/Kg	1	353.2	Soluble

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-2

Method	Method Description	Protocol	Laboratory
350.1	Nitrogen, Ammonia	MCAWW	TAL NSH
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL DEN
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL DEN
Nitrate by calc	Nitrogen, Nitrate-Nitrite	SM	TAL DEN
Nitrogen,Org	Nitrogen, Organic	EPA	TAL DEN
SM 4500 NO2 B	Nitrogen, Nitrite	SM	TAL DEN
Total Nitrogen	Nitrogen, Total	EPA	TAL DEN

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

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

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Sample Summary

4 of 4: n tal tec 4 ol sSO u 4 orgp
. roEctjnite: n tal tec 4 / V - Xal ueCy4 ,

TestAmerica Job ID: 280-95081-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-95001-O	X4 d-n4 -37	no6	03j22j01 07:d5	03j23j01 01:00
280-95001-2	X4 d-n4 -31	no6	03j22j01 01:00	03j23j01 01:00

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-2

General Chemistry

Client Sample ID: RC4-SC-36
Date Collected: 03/22/17 16:45
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95107-1
Matrix: Solid
Percent Solids: 80.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		12	6.1	mg/Kg	☼	03/30/17 10:19	03/31/17 11:16	1
Nitrogen, Kjeldahl	230		62	15	mg/Kg	☼	04/05/17 18:12	04/05/17 22:55	1
Nitrate as N	54		1.2	0.037	mg/Kg	☼		04/06/17 08:06	1
Nitrogen, Total Organic	230		6.2	2.6	mg/Kg	☼		04/06/17 10:05	1
Nitrogen, Total	270		1.2	1.2	mg/Kg	☼		04/06/17 08:20	1

Client Sample ID: RC4-SC-37
Date Collected: 03/22/17 17:00
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95107-2
Matrix: Solid
Percent Solids: 81.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		12	6.1	mg/Kg	☼	03/30/17 10:19	03/31/17 11:17	1
Nitrogen, Kjeldahl	470	F1	120	29	mg/Kg	☼	04/05/17 18:12	04/05/17 22:51	2
Nitrate as N	6.8		1.2	0.037	mg/Kg	☼		04/06/17 08:07	1
Nitrogen, Total Organic	470		6.1	2.5	mg/Kg	☼		04/06/17 10:05	1
Nitrogen, Total	480		1.2	1.2	mg/Kg	☼		04/06/17 08:20	1

General Chemistry - Soluble

Client Sample ID: RC4-SC-36
Date Collected: 03/22/17 16:45
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95107-1
Matrix: Solid
Percent Solids: 80.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	43	F1	1.2	0.41	mg/Kg	☼		03/30/17 21:34	1
Nitrite as N	ND		0.19	0.052	mg/Kg	☼		03/29/17 20:03	1

Client Sample ID: RC4-SC-37
Date Collected: 03/22/17 17:00
Date Received: 03/23/17 07:00

Lab Sample ID: 280-95107-2
Matrix: Solid
Percent Solids: 81.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	5.6		1.2	0.42	mg/Kg	☼		03/30/17 21:40	1
Nitrite as N	ND		0.18	0.051	mg/Kg	☼		03/29/17 20:03	1

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-2

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 490-418413/1-A
Matrix: Solid
Analysis Batch: 418834

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 418413

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		K0	5.0	mg/dg		0h/h0/K7 K0:K9	0h/hK/K7 KK:K6	K

Lab Sample ID: LCS 490-418413/2-A
Matrix: Solid
Analysis Batch: 418834

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 418413
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Ammonia	250	265		mg/dg		98	80 - K20

Lab Sample ID: 280-95107-2 MS
Matrix: Solid
Analysis Batch: 418834

Client Sample ID: RC4-SC-37
Prep Type: Total/NA
Prep Batch: 418413
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Ammonia	ND		h0h	h02		mg/dg	✱	K00	7h - K26

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 280-368208/2-A
Matrix: Solid
Analysis Batch: 368237

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 368208

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, djel1a3l	ND		50	K2	mg/dg		06/05/K7 K8:K2	06/05/K7 22:h7	K

Lab Sample ID: LCS 280-368208/1-A
Matrix: Solid
Analysis Batch: 368237

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 368208
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Nitrogen, djel1a3l	h00	285		mg/dg		95	90 - KK0

Lab Sample ID: 280-95107-2 MS
Matrix: Solid
Analysis Batch: 368237

Client Sample ID: RC4-SC-37
Prep Type: Total/NA
Prep Batch: 368208
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Nitrogen, djel1a3l	670	4K	K80	52F	4K	mg/dg	✱	hK	90 - KK0

Lab Sample ID: 280-95107-2 MSD
Matrix: Solid
Analysis Batch: 368237

Client Sample ID: RC4-SC-37
Prep Type: Total/NA
Prep Batch: 368208
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Nitrogen, djel1a3l	670	4K	K8h	F02	4K	mg/dg	✱	72	90 - KK0	Kh	h0

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-2

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 280-367129/1-A

Matrix: Solid

Analysis Batch: 367500

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.98	0.h5	mg/dg			0h/h0/K7 2K:h0	K

Lab Sample ID: LCS 280-367129/2-A

Matrix: Solid

Analysis Batch: 367500

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	68.9	69.h		mg/dg		K0K	90 - KK0

Lab Sample ID: 280-95107-1 MS

Matrix: Solid

Analysis Batch: 367500

Client Sample ID: RC4-SC-36

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	6h	4K	67.F	75.6	4K	mg/dg	✱	F8	90 - KK0

Lab Sample ID: 280-95107-1 MSD

Matrix: Solid

Analysis Batch: 367500

Client Sample ID: RC4-SC-36

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	6h	4K	67.9	7F.h	4K	mg/dg	✱	F9	90 - KK0	K	K0

Method: Nitrate by calc - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 280-368260/1

Matrix: Solid

Analysis Batch: 368260

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		K.0	0.0h0	mg/dg			06/0F/K7 08:0F	K

Method: Nitrogen,Org - Nitrogen, Organic

Lab Sample ID: MB 280-368307/1

Matrix: Solid

Analysis Batch: 368307

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Total Organic	ND		5.0	2.K	mg/dg			06/0F/K7 K0:05	K

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-2

Method: SM 4500 NO2 B - Nitrogen, Nitrite

Lab Sample ID: MB 280-367328/1-A
Matrix: Solid
Analysis Batch: 367336

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		0.K5	0.062	mg/dg			0h/29/K7 20:0h	K

Lab Sample ID: LCS 280-367328/2-A
Matrix: Solid
Analysis Batch: 367336

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.698	0.5hK		mg/dg		K07	87 - K07

Lab Sample ID: LCSD 280-367328/3-A
Matrix: Solid
Analysis Batch: 367336

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	0.69K	0.52F		mg/dg		K07	87 - K07	K	K0

Lab Sample ID: 280-95107-1 MS
Matrix: Solid
Analysis Batch: 367336

Client Sample ID: RC4-SC-36
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	ND		0.F2F	0.F65		mg/dg	✱	K0h	70 - Kh0

Lab Sample ID: 280-95107-1 MSD
Matrix: Solid
Analysis Batch: 367336

Client Sample ID: RC4-SC-36
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	ND		0.FK7	0.F62		mg/dg	✱	K06	70 - Kh0	0	K0

Method: Total Nitrogen - Nitrogen, Total

Lab Sample ID: MB 280-368270/1
Matrix: Solid
Analysis Batch: 368270

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Total	ND		K.0	K.0	mg/dg			06/0F/K7 08:20	K

TestAmerica Denver

QC Association Summary

4 of 4 total test results for 4 samples
 . reflect the test results for 4 / V - Xal ue 4,

TestAmerica Job ID: 280-95081-2

General Chemistry

Leach Batch: 367129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95N01-N	X46-n4-7M	noSbE	noCO	DI deac3	
280-95N01-2	X46-n4-71	noSbE	noCO	DI deac3	
B h 280-7MIN29jN-A	Bet3oOh@l k	noSbE	noCO	DI deac3	
d4 n 280-7MIN29j2-A	dab 4 ol troQamg@	noSbE	noCO	DI deac3	
280-95N01-NB n	X46-n4-7M	noSbE	noCO	DI deac3	
280-95N01-NB nD	X46-n4-7M	noSbE	noCO	DI deac3	

Leach Batch: 367328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95N01-N	X46-n4-7M	noSbE	noCO	DI deac3	
280-95N01-2	X46-n4-71	noSbE	noCO	DI deac3	
B h 280-7MI728jN-A	Bet3oOh@l k	noSbE	noCO	DI deac3	
d4 n 280-7MI728j2-A	dab 4 ol troQamg@	noSbE	noCO	DI deac3	
d4 nD 280-7MI728j7-A	dab 4 ol troQamg@ DSg	noSbE	noCO	DI deac3	
280-95N01-NB n	X46-n4-7M	noSbE	noCO	DI deac3	
280-95N01-NB nD	X46-n4-7M	noSbE	noCO	DI deac3	

Analysis Batch: 367336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95N01-N	X46-n4-7M	noSbE	noCO	nB 6500 L, 2 h	7MI728
280-95N01-2	X46-n4-71	noSbE	noCO	nB 6500 L, 2 h	7MI728
B h 280-7MI728jN-A	Bet3oOh@l k	noSbE	noCO	nB 6500 L, 2 h	7MI728
d4 n 280-7MI728j2-A	dab 4 ol troQamg@	noSbE	noCO	nB 6500 L, 2 h	7MI728
d4 nD 280-7MI728j7-A	dab 4 ol troQamg@ DSg	noSbE	noCO	nB 6500 L, 2 h	7MI728
280-95N01-NB n	X46-n4-7M	noSbE	noCO	nB 6500 L, 2 h	7MI728
280-95N01-NB nD	X46-n4-7M	noSbE	noCO	nB 6500 L, 2 h	7MI728

Analysis Batch: 367500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95N01-N	X46-n4-7M	noSbE	noCO	757p2	7MIN29
280-95N01-2	X46-n4-71	noSbE	noCO	757p2	7MIN29
B h 280-7MIN29jN-A	Bet3oOh@l k	noSbE	noCO	757p2	7MIN29
d4 n 280-7MIN29j2-A	dab 4 ol troQamg@	noSbE	noCO	757p2	7MIN29
280-95N01-NB n	X46-n4-7M	noSbE	noCO	757p2	7MIN29
280-95N01-NB nD	X46-n4-7M	noSbE	noCO	757p2	7MIN29

Prep Batch: 368208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95N01-N	X46-n4-7M	Total A	noCO	75Np2	
280-95N01-2	X46-n4-71	Total A	noCO	75Np2	
B h 280-7MB208j2-A	Bet3oOh@l k	Total A	noCO	75Np2	
d4 n 280-7MB208jN-A	dab 4 ol troQamg@	Total A	noCO	75Np2	
280-95N01-2 B n	X46-n4-71	Total A	noCO	75Np2	
280-95N01-2 B nD	X46-n4-71	Total A	noCO	75Np2	

Analysis Batch: 368237

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95N01-N	X46-n4-7M	Total A	noCO	75Np2	7MB208
280-95N01-2	X46-n4-71	Total A	noCO	75Np2	7MB208
B h 280-7MB208j2-A	Bet3oOh@l k	Total A	noCO	75Np2	7MB208
d4 n 280-7MB208jN-A	dab 4 ol troQamg@	Total A	noCO	75Np2	7MB208

TestAmerica Del ver

QC Association Summary

4 of 4 total test results for 4 samples
 . reflect the total test results for 4 samples.

TestAmerica Job ID: 280-95081-2

General Chemistry (Continued)

Analysis Batch: 368237 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95N01-2 B n	X4 6-n4 -71	Total A	no	75N2	7M208
280-95N01-2 B nD	X4 6-n4 -71	Total A	no	75N2	7M208

Analysis Batch: 368260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95N01-N	X4 6-n4 -7M	Total A	no	L itrate bRca	
280-95N01-2	X4 6-n4 -71	Total A	no	L itrate bRca	
B h 280-7M82MjN	B et3oOh l k	Total A	no	L itrate bRca	

Analysis Batch: 368270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95N01-N	X4 6-n4 -7M	Total A	no	Total itrouel	
280-95N01-2	X4 6-n4 -71	Total A	no	Total itrouel	
B h 280-7M8210jN	B et3oOh l k	Total A	no	Total itrouel	

Analysis Batch: 368307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95N01-N	X4 6-n4 -7M	Total A	no	L itrouel y ru	
280-95N01-2	X4 6-n4 -71	Total A	no	L itrouel y ru	
B h 280-7M8701jN	B et3oOh l k	Total A	no	L itrouel y ru	

Prep Batch: 418413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95N01-N	X4 6-n4 -7M	Total A	no	Disti Ammol ia	
280-95N01-2	X4 6-n4 -71	Total A	no	Disti Ammol ia	
B h 690-6N86N7jN-A	B et3oOh l k	Total A	no	Disti Ammol ia	
d4 n 690-6N86N7j2-A	dab 4 ol troChamg	Total A	no	Disti Ammol ia	
280-95N01-2 B n	X4 6-n4 -71	Total A	no	Disti Ammol ia	

Analysis Batch: 418834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95N01-N	X4 6-n4 -7M	Total A	no	750pN	6N86N7
280-95N01-2	X4 6-n4 -71	Total A	no	750pN	6N86N7
B h 690-6N86N7jN-A	B et3oOh l k	Total A	no	750pN	6N86N7
d4 n 690-6N86N7j2-A	dab 4 ol troChamg	Total A	no	750pN	6N86N7
280-95N01-2 B n	X4 6-n4 -71	Total A	no	750pN	6N86N7

TestAmerica Del ver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-2

Client Sample ID: RC4-SC-18

Date Collecte7: 91@2@kd x8:4M

Date ReceiBe7: 91@1@kd 9d:99

Lab Sample ID: 209-5Mk9d-x

3 atri/ : Soli7

vercent Soli7T: 09y9

vrep PApe	satch PApe	satch 3 etho7	Rzn	Dil Nactor	Initial umoznt	Ninal umoznt	satch . z mber	vprepare7 or unalAFe7	unalATt	Lab
Total/NA	Prep	Distill/Ammonia			1.02 g	50 mL	418413	03/30/17 10:19	GRM	TAL NSH
Total/NA	Analysis	350.1		1	50 mL	50 mL	418834	03/31/17 11:16	JAB	TAL NSH
Total/NA	Prep	351.2			0.50 g	25 mL	368208	04/05/17 18:12	KAM	TAL DEN
Total/NA	Analysis	351.2		1			368237	04/05/17 22:55	KAM	TAL DEN
Soluble	Leach	DI Leach			10.84 g	100 mL	367129	03/28/17 16:54	SVC	TAL DEN
Soluble	Analysis	353.2		1	100 mL	100 mL	367500	03/30/17 21:34	SVC	TAL DEN
Total/NA	Analysis	Nitrate by calc		1			368260	04/06/17 08:06	AJA	TAL DEN
Total/NA	Analysis	Nitrogen,Org		1			368307	04/06/17 10:05	AJA	TAL DEN
Soluble	Leach	DI Leach			10.02 g	100 mL	367328	03/29/17 18:58	ALS	TAL DEN
Soluble	Analysis	SM 4500 NO2 B		1	10.02 g	10 mL	367336	03/29/17 20:03	ALS	TAL DEN
Total/NA	Analysis	Total Nitrogen		1			368270	04/06/17 08:20	AJA	TAL DEN

Client Sample ID: RC4-SC-1d

Date Collecte7: 91@2@kd xd:99

Date ReceiBe7: 91@1@kd 9d:99

Lab Sample ID: 209-5Mk9d-2

3 atri/ : Soli7

vercent Soli7T: 0xy0

vrep PApe	satch PApe	satch 3 etho7	Rzn	Dil Nactor	Initial umoznt	Ninal umoznt	satch . z mber	vprepare7 or unalAFe7	unalATt	Lab
Total/NA	Prep	Distill/Ammonia			1.00 g	50 mL	418413	03/30/17 10:19	GRM	TAL NSH
Total/NA	Analysis	350.1		1	50 mL	50 mL	418834	03/31/17 11:17	JAB	TAL NSH
Total/NA	Prep	351.2			0.50 g	25 mL	368208	04/05/17 18:12	KAM	TAL DEN
Total/NA	Analysis	351.2		2			368237	04/05/17 22:51	KAM	TAL DEN
Soluble	Leach	DI Leach			10.39 g	100 mL	367129	03/28/17 16:54	SVC	TAL DEN
Soluble	Analysis	353.2		1	100 mL	100 mL	367500	03/30/17 21:40	SVC	TAL DEN
Total/NA	Analysis	Nitrate by calc		1			368260	04/06/17 08:07	AJA	TAL DEN
Total/NA	Analysis	Nitrogen,Org		1			368307	04/06/17 10:05	AJA	TAL DEN
Soluble	Leach	DI Leach			10.05 g	100 mL	367328	03/29/17 18:58	ALS	TAL DEN
Soluble	Analysis	SM 4500 NO2 B		1	10.05 g	10 mL	367336	03/29/17 20:03	ALS	TAL DEN
Total/NA	Analysis	Total Nitrogen		1			368270	04/06/17 08:20	AJA	TAL DEN

LaboratorA ReferenceT:

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

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TestAmerica Denver

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
 1 roectjSite: Stantec C/ V - XangelRyC,

TestAmerica Job ID: 280-94086-2

Laboratory: TestAmerica Denver

All accreQtationsjcertidcations f eLObRtf is laboratorRare listeQ h ot all accreQtationsjcertidcations are applicable to tf is report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2NA	DoD 7NA1		2906.0L	L0-EL-L6
A2NA	IS, jI7C L6024		2906.0L	L0-EL-L6
Alabama	State 1 rogram	3	306E0	09-E0-L2 5
Alas*a k STU	State 1 rogram	L0	(ST-E0	03-04-L8
Ari) ona	State 1 rogram	9	Az 06LE	L2-20-L6
Ar* ansas D7Z	State 1 rogram	Q	88-0Q86	0Q0L-L6
Calidørnia	State 1 rogram	9	24LE	0L-08-L8 5
Connecticut	State 1 rogram	L	1H-0Q8Q	09-E0-L8
FloriCa	h 7NA1	3	786QQ6	0QE0-L6
Georgia	State 1 rogram	3	h jA	0L-08-L8
Illinois	h 7NA1	4	2000L6	03-E0-L8
Iowa	State 1 rogram	6	E60	L2-0L-L8 5
Kansas	h 7NA1	6	7-L0LQQ	03-E0-L6 5
Nbuisiana	h 7NA1	Q	0209Q	0QE0-L6
Maine	State 1 rogram	L	C, 0002	0E-0E-L9
Minnesota	h 7NA1	4	8-999-304	L2-EL-L6 5
hevaCa	State 1 rogram	9	C, 002Q	06-EL-L6
hew Hampsf ire	h 7NA1	L	204EL0	03-28-L6
hew JerseR	h 7NA1	2	C, 003	0QE0-L6
hew Yor*	h 7NA1	2	LL9QB	03-0L-L8
hortf Carolina kWWjSWU	State 1 rogram	3	E48	L2-EL-L6
hortf Da*ota	State 1 rogram	8	X-0E3	0L-09-L8
, *laf oma	State 1 rogram	Q	8QL3	08-EL-L6
, regon	h 7NA1	L0	3024	0L-08-L8
1ennsRvania	h 7NA1	E	QB-00QQB	06-EL-L6
Soutf Carolina	State 1 rogram	3	6200200L	0L-09-L6 5
Texas	h 7NA1	Q	TL03603L8E-LQL2	09-E0-L6
(SDA	FeCeral		1EE0-LQ00E96	L2-L4-L9
(taf	h 7NA1	8	C, 0002Q	06-EL-L6
/ irginia	h 7NA1	E	3Q02E2	0QL3-L6
Wasf ington	State 1 rogram	L0	C48E	08-02-L6
West / irginia D71	State 1 rogram	E	E43	LL-E0-L6
Wisconsin	State 1 rogram	4	999QL43E0	08-EL-L6
WRming k STU	A2NA	8	2906.0L	L0-EL-L6

Laboratory: TestAmerica Nashville

All accreQtationsjcertidcations f eLObRtf is laboratorRare listeQ h ot all accreQtationsjcertidcations are applicable to tf is report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2NA	A2NA		h A: h 7NA1 & A2NA	L2-EL-L6
A2NA	IS, jI7C L6024		034E.06	L2-EL-L6
Alas*a k STU	State 1 rogram	L0	(ST-086	09-0L-L6
Ari) ona	State 1 rogram	9	Az 036E	04-04-L6
Ar* ansas D7Z	State 1 rogram	Q	88-06E6	03-24-L6
Calidørnia	State 1 rogram	9	29E8	L0-EL-L8
Connecticut	State 1 rogram	L	1H-0220	L2-EL-L6
FloriCa	h 7NA1	3	786E48	0QE0-L6
Georgia	State 1 rogram	3	h jA	L2-EL-L6
Illinois	h 7NA1	4	2000L0	L2-09-L6
Iowa	State 1 rogram	6	LEL	03-0L-L8

5AccreQtationjCertidcation renewal penQng - accreQtationjcertidcation consiCereOvaliQ

TestAmerica Denver

Accreditation/Certification Summary

Client: Stantec Consulting Corp.

TestAmerica Job ID: 280-94086-2


1 roectjSite: Stantec C/ V - XangelRyC,

Laboratory: TestAmerica Nashville (Continued)

All accreQtationsjcertidcations f elObRtf is laboratorRare listeQ h ot all accreQtationsjcertidcations are applicable to tf is report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Kansas	h 7NA1	6	7-L0229	L0-EL-L6
Kentuc*RK(STU	State 1 rogram	3	L9	0QE0-L6
Kentuc*RKWWU	State 1 rogram	3	900E8	L2-EL-L6
Nbuisiana	h 7NA1	Q	E0QLE	0QE0-L6
Maine	State 1 rogram	L	Th 000E2	LL-0E-L6
MarRanO	State 1 rogram	E	ELQ	0E-EL-L8
Massacf usetts	State 1 rogram	L	M-Th 0E2	0QE0-L6
Minnesota	h 7NA1	4	036-999-E34	L2-EL-L6
Mississippi	State 1 rogram	3	h jA	0QE0-L6
Montana k(STU	State 1 rogram	8	h A	02-23-20
h evaQa	State 1 rogram	9	Th 000E2	06-EL-L6
h ew Hampsf ire	h 7NA1	L	29QE	L0-09-L6
h ew JerseR	h 7NA1	2	Th 9Q4	0QE0-L6
h ew Yor*	h 7NA1	2	LLE32	0E-EL-L6 5
h ortf Carolina kWWjSWU	State 1 rogram	3	E86	L2-EL-L6
h ortf Da*ota	State 1 rogram	8	X-L3Q	0QE0-L6
, f io / A1	State 1 rogram	4	CN00EE	06-L0-L6
, *laf oma	State 1 rogram	Q	93L2	08-EL-L6
, regon	h 7NA1	L0	Th 20000L	03-26-L6
1 ennsRvania	h 7NA1	E	QB-00484	0QE0-L6
Xf oQe IslanO	State 1 rogram	L	NA, 002QB	L2-E0-L6
Soutf Carolina	State 1 rogram	3	83009 k00LU	02-L8-L6 5
Soutf Carolina kDo h ot (se - DWU	State 1 rogram	3	83009 k002U	L2-LQL6
Tennessee	State 1 rogram	3	2008	02-2E-20
Texas	h 7NA1	Q	TL03603066	08-EL-L6
(SDA	FeQeral		1 EE0-LE-00E0Q	L2-0L-L9
(taf	h 7NA1	8	Th 000E2	06-EL-L6
/ irginia	h 7NA1	E	3QL42	0QL3-L6
Wasf ington	State 1 rogram	L0	C689	06-L9-L6
West / irginia D71	State 1 rogram	E	2L9	02-28-L8
Wisconsin	State 1 rogram	4	9980203E0	08-EL-L6
WRoming k(STU	A2NA	8	34E.06	L2-EL-L6

TestAmerica Laboratories, Inc.

Regulatory Program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other:										TestAmerica Laboratories, Inc.									
Project Manager: Bethany Lucente Tel/Fax: (303) 250-4718										Site Contact: Bethany Lucente Lab Contact: Jamie Ide									
Client Contact Stantec 20200 South Colorado Blvd., Suite 2-300 Denver, CO 80222										Date: 3/22/17 Carrier: Courier									
Analysis Turnaround Time <input checked="" type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below ASAP <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input checked="" type="checkbox"/> 1 day										COC No: 1 of 1 COCs Sampler: Mike Stantec For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.:									
Sample Identification										Sample Specific Notes									
Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	BTEX 8260B	GRO-TEPH 8015C	DRO-TEPH 8015C	DRO, ORO w/ SGHEM	PAHs 8270D SIM	EC/SAR	Metals 6010C	Hg 7471A	PH 9045D	Moisture	Chill/CVI 7196A	As 6020	
RC4-SC-36	3/22/17 1645	C	S	2			X	X	X									u stream	
RC4-SC-37	3/22/17 1700	C	S	2			X	X	X									down stream	
 280-95107 Chain of Custody										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)									
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.										<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown									
Special Instructions/QC Requirements & Comments:										<input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for Months									
Metals include Ba, B, Cd, Cr, Cu, Pb, Ni, Se, Ag, Zn										4.540.0 IR #7 transferred by JT 3/23/17									
Custody Seal No.:										Therm ID No.:									
Relinquished by: Mike Stantec Relinquished by:										Received by: [Signature] Received by:									
Date/Time:										Date/Time:									
Date/Time:										Date/Time:									
Date/Time:										Date/Time:									

Chain of Custody Record



Client Information (Sub Contract Lab) Client Contact: _____ Shipping/Receiving: _____ Company: TestAmerica Laboratories, Inc. Address: 2960 Foster Creighton Drive, City: Nashville State/Zip: TN, 37204 Phone: 615-726-0177(Tel) 615-726-3404(Fax) Email: _____ Project Name: Stantec CVX - Rangely, CO Site: _____		Lab PM: _____ Ide, Jamie N E-Mail: jamie.ide@testamericainc.com Accreditations Required (See note): _____		Carrier Tracking No(s): _____ State of Origin: Colorado Page: 1 of 1 Job #: 280-95087-2 Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ica J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify) _____ Other: _____	
Due Date Requested: 3/29/2017 TAT Requested (days): _____ PO #: _____ WO #: _____ Project #: 28016458 SSOW #: _____		Analysis Requested Ref: _____ Dep: _____ Date: 28Mar17 Wgt: 8.60 LBS DV: _____ SHIPPING: 0.00 SPECIAL: 0.00 HANDLING: 0.00 TOTAL: 0.00 SVCS: STANDARD OVERNIGHT TRCK: 7167 3776 1267			
Sample Identification - Client ID (Lab ID) RC4-SC-36 (280-95107-1) RC4-SC-37 (280-95107-2)		Sample Date: 3/22/17 Sample Time: 16:45 Mountain 17:00 Mountain		Sample Type (C=comp, G=grab) Preservation Code: _____ Matrix (W=water, S=solid, O=ore, etc.) Solid Solid	
Field Filtered Sample (Yes or No) _____ Perform MS/MSD (Yes or No) _____ 350.1/Distill. Ammonia Nitrogen (3 of 3) _____		Total Number of containers: _____ Special Instructions/Note: _____			

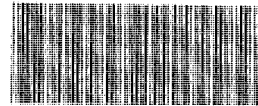
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by: _____ Relinquished by: <i>Patricia</i> Relinquished by: _____ Relinquished by: _____ Custody Seals Intact: _____ Δ Yes Δ No		Date: _____ Date/Time: 3/28/17 Date/Time: 1610 Date/Time: _____ Date/Time: _____ Company: TAD Company: _____ Company: _____ Cooler Temperature(s) °C and Other Remarks: _____	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM



280-95107 Chain of Custody

Cooler Received/Opened On 3-29-17 @ 0945

Time Samples Removed From Cooler 1146 Time Samples Placed In Storage 1231 (2 Hour Window)

1. Tracking # 1267 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 17960357 pH Strip Lot NA Chlorine Strip Lot NH

2. Temperature of rep. sample or temp blank when opened: 5.1 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES NO NA

If yes, how many and where: one front

5. Were the seals intact, signed, and dated correctly? YES NO NA

6. Were custody papers inside cooler? YES NO NA

I certify that I opened the cooler and answered questions 1-6 (initial) DA

7. Were custody seals on containers: YES NO and Intact YES NO NA

Were these signed and dated correctly? YES NO NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES NO NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES NO NA

12. Did all container labels and tags agree with custody papers? YES NO NA

13a. Were VOA vials received? YES NO NA

b. Was there any observable headspace present in any VOA vial? YES NO NA

14. Was there a Trip Blank in this cooler? YES NO NA If multiple coolers, sequence #

I certify that I unloaded the cooler and answered questions 7-14 (initial) PM

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES NO NA

b. Did the bottle labels indicate that the correct preservatives were used YES NO NA

16. Was residual chlorine present? YES NO NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) PM

17. Were custody papers properly filled out (ink, signed, etc)? YES NO NA

18. Did you sign the custody papers in the appropriate place? YES NO NA

19. Were correct containers used for the analysis requested? YES NO NA

20. Was sufficient amount of sample sent in each container? YES NO NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) PM

I certify that I attached a label with the unique LIMS number to each container (initial) PM

21. Were there Non-Conformance issues at login? YES NO Was a NCM generated? YES NO #

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-95087-2

Login Number: 95107

List Source: TestAmerica Denver

List Number: 1

Creator: True, Joshua A

Question	Answer	Comment
Activity as described or is background measure by a survey meter.	N/A	
Is the container seal intact, present?	=true	
Sample container seals, present?	=true	
Is 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	
CF C is present.	=true	
CF C is, filled out in handwritten legible.	=true	
CF C is, filled out by it all pertinent information.	=true	
Is the label name present on CF C?	=true	
Are there any discrepancies between the containers received and the CF C.	=true	
Samples are received in the original container (during tests by immediate)?	=true	
Sample containers have legible labels.	=true	
Containers are not broken or leaking.	=true	
Sample collection rates are provided.	=true	
Appropriate sample containers are used.	=true	
Sample bottles are completely filled.	=true	
Sample preservation period.	N/A	
Is there sufficient data for all requested analyses including requested samples?	=true	
Containers receiving direct exposure have no exposure or bubble is visible?	N/A	
Unlabeled samples are not present.	=true	
Samples do not require splitting or compositing.	=true	
Actual Count Rate	N/A	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-95087-2

Login Number: 95107

List Number: 2

Creator: Ngo, Phiet

List Source: TestAmerica Nashville

List Creation: 03/29/17 12:27 PM

Question	Answer	Comment
AaRoactiditv y asnw' echeRor is k k bachgrounRas measureRbv a surdev meter.	N1	
= ' e coolers custoRv sealTi, presentTis intact.	=rue	
Sample custoRv sealsTi, presentTare intact.	N1	
= ' e cooler or samples Ro not appear to ' ade been compromiseRor tampereRy it' .	=rue	
Samples y ere receideR on ice.	=rue	
Cooler =emperature is acceptable.	=rue	
Cooler =emperature is recorReR	=rue	
Cf C is present.	=rue	
Cf C is ,illeRout in inh anRlegible.	=rue	
Cf C is ,illeRout y it' all pertinent in,ormation.	=rue	
Q t' e l ielR Samplens name present on Cf CF	=rue	
= ' ere are no Rdiscrepancies bety een t' e containers receideRanRt' e Cf C.	=rue	
Samples are receideRy it' in ? olRng =ime He(cluRng tests y it' immeRate ? =sx	=rue	
Sample containers ' ade legible labels.	=rue	
Containers are not brohen or leahing.	=rue	
Sample collection Rate times are prodiReR	=rue	
/ pppropriate sample containers are useR	=rue	
Sample bottles are completelv ,illeR	=rue	
Sample) reserdation Peri,ieR	N1	
= ' ere is su,,icient dol. ,or all reVuesteR analvsesTincl. anv reVuesteR q S1q SMs	=rue	
Containers reVuiring Dero ' eaRspace ' ade no ' eaRspace or bubble is kzmm H6 14"x	=rue	
q ultip' asic samples are not present.	=rue	
Samples Ro not reVuire splitting or compositing.	=rue	
AesiRual C' lorine C' echeR	N1	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver

4955 Yarrow Street

Arvada, CO 80002

Tel: (303)736-0100

TestAmerica Job ID: 280-95393-1

Client Project/Site: Stantec CVX - Rangely, CO

For:

Stantec Consulting Corp.

2000 South Colorado Blvd

Suite 2-300

Denver, Colorado 80222

Attn: Ms. Bethany Lucente



Authorized for release by:

4/18/2017 3:39:35 PM

Jamie Ide, Project Manager I

(303)736-0126

jamie.ide@testamericainc.com

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results through

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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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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-1

Qualifiers

GC SmV

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

GC cep i SmV

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
X	Surrogate is outside control limits
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These are only used abbreviations that 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, 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)

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-1

Job ID: 280-95191-3

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Stantec Consulting Corp.
Project: Stantec CVX - Rangely, CO
Report Number: 280-95191-3

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 on 3/31/2017 4:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 8.9° C, 10.1° C, 13.5° C and 13.9° C. It was noted that ice was present in the coolers; however, may not have been present with the samples during the storage time between 3/30 and 3/31. The laboratory will proceed with the requested analyses unless otherwise notified. The client was notified 4/3/17.

Due to the large number of samples received, the samples have been logged in a job series of ~20 samples per SDG (280-95393-2, 280-95393-3, 280-95393-4, 280-95393-5). This SDG includes the first 20 samples listed on the chain of custody.

GASOLINE RANGE ORGANICS (GRO)

a,a,a-Trifluorotoluene failed the surrogate recovery criteria high for RC4-SC-47 (280-95393-10), RC4-SC-49 (280-95393-12), RC4-SC-50 (280-95393-13), RC4-SC-51 (280-95393-14), RC4-SC-52 (280-95393-15), RC4-SC-54 (280-95393-17), RC4-SC-57 (280-95393-20), RC4-SC-40 (280-95393-3), RC4-SC-41 (280-95393-4), RC4-SC-42 (280-95393-5) and RC4-SC-44 (280-95393-7). Evidence of matrix interference is present; therefore, corrective action was not performed.

Samples RC4-SC-40 (280-95393-3)[20X], RC4-SC-41 (280-95393-4)[50X], RC4-SC-42 (280-95393-5)[10X], RC4-SC-44 (280-95393-7)[5X], RC4-SC-45 (280-95393-8)[5X], RC4-SC-46 (280-95393-9)[2X], RC4-SC-47 (280-95393-10)[50X], RC4-SC-48 (280-95393-11)[2X], RC4-SC-49 (280-95393-12)[5X], RC4-SC-50 (280-95393-13)[20X], RC4-SC-51 (280-95393-14)[20X], RC4-SC-53 (280-95393-16)[5X], RC4-SC-55 (280-95393-18)[5X] and RC4-SC-57 (280-95393-20)[10X] required dilution prior to analysis due to the nature of the sample matrix.. The reporting limits have been adjusted accordingly.

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

DIESEL RANGE ORGANICS

o-Terphenyl failed the surrogate recovery criteria for RC4-SC-38 (280-95393-1), RC4-SC-47 (280-95393-10), RC4-SC-48 (280-95393-11), RC4-SC-50 (280-95393-13), RC4-SC-51 (280-95393-14), RC4-SC-52 (280-95393-15), RC4-SC-53 (280-95393-16), RC4-SC-54 (280-95393-17), RC4-SC-55 (280-95393-18), RC4-SC-39 (280-95393-2), RC4-SC-57 (280-95393-20), RC4-SC-40 (280-95393-3), RC4-SC-41 (280-95393-4), RC4-SC-43 (280-95393-6), RC4-SC-44 (280-95393-7), RC4-SC-45 (280-95393-8), RC4-SC-46 (280-95393-9) and RC4-SC-50 (280-95393-13MS). Evidence of matrix interference is present; therefore, corrective action was not performed. 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. The surrogate recoveries are calculated from diluted samples and in some cases are diluted below reportable limits.

The following samples could not be thoroughly homogenized before sub-sampling was performed due to sample matrix: RC4-SC-38 (280-95393-1), RC4-SC-39 (280-95393-2), RC4-SC-40 (280-95393-3), RC4-SC-44 (280-95393-7), RC4-SC-45 (280-95393-8), RC4-SC-48 (280-95393-11), RC4-SC-53 (280-95393-16), RC4-SC-54 (280-95393-17), RC4-SC-55 (280-95393-18), RC4-SC-56 (280-95393-19) and RC4-SC-57 (280-95393-20). The samples were clay.

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-1

Job ID: 280-95191-3 (Continue) d

Laboratory: TestAmerica Denver (Continue) d

Due to the matrix, the following samples could not be concentrated to the final method required volume: RC4-SC-50 (280-95393-13), RC4-SC-51 (280-95393-14), RC4-SC-55 (280-95393-18), (280-95393-A-13 MS), (280-95393-A-13 MSD), RC4-SC-41 (280-95393-4). The reporting limits (RLs) are elevated proportionately.

o-Terphenyl failed the surrogate recovery criteria high for MB 280-367732/1-A., MB 280-368299/1-A, LCS 280-367732/2-A and LCS 280-368299/2-A. The associated sample extraction holding time has expired and exhibited matrix interferences; therefore, the data has been reported.

DRO (C10-C28) failed the recovery criteria high for LCS 280-367732/2-A. The associated sample extraction holding time has expired and exhibited matrix interferences; therefore, the data has been reported.

DRO (C10-C28) failed the recovery criteria high for the MS/MSD of sample RC4-SC-50 (280-95393-13).

Samples RC4-SC-39 (280-95393-2)[2X], RC4-SC-40 (280-95393-3)[10X], RC4-SC-41 (280-95393-4)[10X], RC4-SC-42 (280-95393-5)[2X], RC4-SC-43 (280-95393-6)[2X], RC4-SC-44 (280-95393-7)[10X], RC4-SC-45 (280-95393-8)[5X], RC4-SC-46 (280-95393-9)[5X], RC4-SC-47 (280-95393-10)[10X], RC4-SC-48 (280-95393-11)[5X], RC4-SC-49 (280-95393-12)[10X], RC4-SC-50 (280-95393-13)[2X], RC4-SC-51 (280-95393-14)[2X], RC4-SC-53 (280-95393-16)[5X], RC4-SC-54 (280-95393-17)[10X], RC4-SC-55 (280-95393-18)[5X] and RC4-SC-57 (280-95393-20)[2X] required dilution prior to analysis due to the nature of the sample matrix. The reporting limits have been adjusted accordingly.

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

PERCENT SOLIDS

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

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-1

Client Sample ID: RC4-SC-38

Lab Sample ID: 280-95393-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	11		1.4	0.37	mg/Kg	1	☒	8015C	Total/NA
DRO (C10-C28)	750	*	4.9	0.82	mg/Kg	1	☒	8015C	Total/NA

Client Sample ID: RC4-SC-39

Lab Sample ID: 280-95393-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	5.8		1.5	0.41	mg/Kg	1	☒	8015C	Total/NA
DRO (C10-C28)	1600	*	9.3	1.6	mg/Kg	2	☒	8015C	Total/NA

Client Sample ID: RC4-SC-40

Lab Sample ID: 280-95393-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	550		29	7.8	mg/Kg	20	☒	8015C	Total/NA
DRO (C10-C28)	6000	*	49	8.3	mg/Kg	10	☒	8015C	Total/NA

Client Sample ID: RC4-SC-41

Lab Sample ID: 280-95393-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	2000		74	20	mg/Kg	50	☒	8015C	Total/NA
DRO (C10-C28)	42000		240	40	mg/Kg	10	☒	8015C	Total/NA

Client Sample ID: RC4-SC-42

Lab Sample ID: 280-95393-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	420		14	3.7	mg/Kg	10	☒	8015C	Total/NA
DRO (C10-C28)	2100	*	9.5	1.6	mg/Kg	2	☒	8015C	Total/NA

Client Sample ID: RC4-SC-43

Lab Sample ID: 280-95393-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	22		1.5	0.39	mg/Kg	1	☒	8015C	Total/NA
DRO (C10-C28)	1300	*	9.4	1.6	mg/Kg	2	☒	8015C	Total/NA

Client Sample ID: RC4-SC-44

Lab Sample ID: 280-95393-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	140		6.8	1.8	mg/Kg	5	☒	8015C	Total/NA
DRO (C10-C28)	7000	*	43	7.3	mg/Kg	10	☒	8015C	Total/NA

Client Sample ID: RC4-SC-45

Lab Sample ID: 280-95393-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	130		7.0	1.9	mg/Kg	5	☒	8015C	Total/NA
DRO (C10-C28)	2300	*	22	3.7	mg/Kg	5	☒	8015C	Total/NA

Client Sample ID: RC4-SC-46

Lab Sample ID: 280-95393-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	51		3.0	0.80	mg/Kg	2	☒	8015C	Total/NA
DRO (C10-C28)	2100	*	24	4.1	mg/Kg	5	☒	8015C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-1

Client Sample ID: RC4-SC-47

Lab Sample ID: 280-95393-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	1500		68	18	mg/Kg	50		✖	8015C	Total/NA
DRO (C10-C28)	5500	*	44	7.4	mg/Kg	10		✖	8015C	Total/NA

Client Sample ID: RC4-SC-48

Lab Sample ID: 280-95393-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	44		3.0	0.81	mg/Kg	2		✖	8015C	Total/NA
DRO (C10-C28)	2700	*	24	4.1	mg/Kg	5		✖	8015C	Total/NA

Client Sample ID: RC4-SC-49

Lab Sample ID: 280-95393-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	170		7.4	2.0	mg/Kg	5		✖	8015C	Total/NA
DRO (C10-C28)	7000	*	48	8.1	mg/Kg	10		✖	8015C	Total/NA

Client Sample ID: RC4-SC-50

Lab Sample ID: 280-95393-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	680		26	7.1	mg/Kg	20		✖	8015C	Total/NA
DRO (C10-C28)	14000		85	14	mg/Kg	2		✖	8015C	Total/NA

Client Sample ID: RC4-SC-51

Lab Sample ID: 280-95393-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	980		28	7.5	mg/Kg	20		✖	8015C	Total/NA
DRO (C10-C28)	16000		89	15	mg/Kg	2		✖	8015C	Total/NA

Client Sample ID: RC4-SC-52

Lab Sample ID: 280-95393-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
DRO (C10-C28)	160		4.3	0.74	mg/Kg	1		✖	8015C	Total/NA

Client Sample ID: RC4-SC-53

Lab Sample ID: 280-95393-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	160		7.3	2.0	mg/Kg	5		✖	8015C	Total/NA
DRO (C10-C28)	4600		25	4.3	mg/Kg	5		✖	8015C	Total/NA

Client Sample ID: RC4-SC-54

Lab Sample ID: 280-95393-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	9.7		1.4	0.37	mg/Kg	1		✖	8015C	Total/NA
DRO (C10-C28)	5700		44	7.5	mg/Kg	10		✖	8015C	Total/NA

Client Sample ID: RC4-SC-55

Lab Sample ID: 280-95393-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	140		6.9	1.9	mg/Kg	5		✖	8015C	Total/NA
DRO (C10-C28)	40000		220	37	mg/Kg	5		✖	8015C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-1

Client Sample ID: RC4-SC-56

Lab Sample ID: 280-95393-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	18		1.4	0.39	mg/Kg	1	☼	8015C	Total/NA
DRO (C10-C28)	530		4.9	0.83	mg/Kg	1	☼	8015C	Total/NA

Client Sample ID: RC4-SC-57

Lab Sample ID: 280-95393-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	370		15	4.1	mg/Kg	10	☼	8015C	Total/NA
DRO (C10-C28)	1400		9.7	1.6	mg/Kg	2	☼	8015C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94797-6

Method	Method Description	Protocol	Laboratory
8064C	Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	SW815	TAL DEN
8064C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW815	TAL DEN
Moisture	Percent Moisture	EPA	TAL DEN

Protocol References:

EPA = " S Environmental Protection Agency

SW815 = UTest Methods For Evaluating Solid Waste, Physical/Chemical MethodsU Third Edition, November 6985 And Its " pdates.

Laboratory References:

TAL DEN = TestAmerica Denver, 1944 Yarrow Street, Arvada, CO 80002, TEL (707)375-0600

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95191-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-95191-4	RCd-SC-18	Soli3	01/10/47 40:05	01/14/47 46:55
280-95191-2	RCd-SC-19	Soli3	01/10/47 40:40	01/14/47 46:55
280-95191-1	RCd-SC-d0	Soli3	01/10/47 40:45	01/14/47 46:55
280-95191-d	RCd-SC-d4	Soli3	01/10/47 40:20	01/14/47 46:55
280-95191-5	RCd-SC-d2	Soli3	01/10/47 40:25	01/14/47 46:55
280-95191-6	RCd-SC-d1	Soli3	01/10/47 40:10	01/14/47 46:55
280-95191-7	RCd-SC-dd	Soli3	01/10/47 40:15	01/14/47 46:55
280-95191-8	RCd-SC-d5	Soli3	01/10/47 40:d0	01/14/47 46:55
280-95191-9	RCd-SC-d6	Soli3	01/10/47 40:d5	01/14/47 46:55
280-95191-40	RCd-SC-d7	Soli3	01/10/47 40:50	01/14/47 46:55
280-95191-44	RCd-SC-d8	Soli3	01/10/47 40:55	01/14/47 46:55
280-95191-42	RCd-SC-d9	Soli3	01/10/47 44:00	01/14/47 46:55
280-95191-41	RCd-SC-50	Soli3	01/10/47 44:05	01/14/47 46:55
280-95191-4d	RCd-SC-54	Soli3	01/10/47 44:40	01/14/47 46:55
280-95191-45	RCd-SC-52	Soli3	01/10/47 44:45	01/14/47 46:55
280-95191-46	RCd-SC-51	Soli3	01/10/47 44:20	01/14/47 46:55
280-95191-47	RCd-SC-5d	Soli3	01/10/47 44:25	01/14/47 46:55
280-95191-48	RCd-SC-55	Soli3	01/10/47 44:10	01/14/47 46:55
280-95191-49	RCd-SC-56	Soli3	01/10/47 44:15	01/14/47 46:55
280-95191-20	RCd-SC-57	Soli3	01/10/47 44:d0	01/14/47 46:55

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95191-4

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-SC-38
Date Collected: 03/30/17 10:05
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-1
Matrix: Solid
Percent Solids: 82.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	11		4.3	0.1K	mg/7g	☼	03/01/4K 40:59	03/05/4K 43:00	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	14		11 - 9D				X72X 213X0	X72X/ 21370X	9

Client Sample ID: RC4-SC-39
Date Collected: 03/30/17 10:10
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-2
Matrix: Solid
Percent Solids: 79.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	5.8		4.5	0.34	mg/7g	☼	03/01/4K 40:59	03/05/4K 43:25	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	4X		11 - 9D				X72X 213X0	X72X/ 21370X	9

Client Sample ID: RC4-SC-40
Date Collected: 03/30/17 10:15
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-3
Matrix: Solid
Percent Solids: 79.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	550		29	K.8	mg/7g	☼	03/01/4K 40:59	03/05/4K 43:50	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	9D	5B	11 - 9D				X72X 213X0	X72X/ 21370X	DX

Client Sample ID: RC4-SC-41
Date Collected: 03/30/17 10:20
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-4
Matrix: Solid
Percent Solids: 82.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	2000		K3	20	mg/7g	☼	03/01/4K 40:59	03/05/4K 45:45	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	9: D6	5B	11 - 9D				X72X 213X0	X72X/ 21370X	7X

Client Sample ID: RC4-SC-42
Date Collected: 03/30/17 10:25
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-5
Matrix: Solid
Percent Solids: 83.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	420		43	1.K	mg/7g	☼	03/01/4K 40:59	03/05/4K 45:30	40
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	7/	5B	11 - 9D				X72X 213X0	X72X/ 21370X	9X

Client Sample ID: RC4-SC-43
Date Collected: 03/30/17 10:30
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-6
Matrix: Solid
Percent Solids: 84.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	22		4.5	0.19	mg/7g	☼	03/01/4K 40:59	03/05/4K 46:05	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	1:		11 - 9D				X72X 213X0	X72X/ 21360X	9

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95191-4

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-SC-44
Date Collected: 03/30/17 10:35
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-7
Matrix: Solid
Percent Solids: 90.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	140		6.8	4.8	mg/7 g	☼	03/01/4K 40:59	03/05/4K 46:29	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	9D	5B	11 - 9D				X7X/ 213X0	X7X/ 2136D	/

Client Sample ID: RC4-SC-45
Date Collected: 03/30/17 10:40
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-8
Matrix: Solid
Percent Solids: 82.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	130		K0	4.9	mg/7 g	☼	03/01/4K 40:59	03/05/4K 46:53	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	4	8	11 - 9D				X7X/ 213X0	X7X/ 2136D 7	/

Client Sample ID: RC4-SC-46
Date Collected: 03/30/17 10:45
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-9
Matrix: Solid
Percent Solids: 82.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	51		1.0	0.80	mg/7 g	☼	03/01/4K 40:59	03/05/4K 4K:49	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	4X		11 - 9D				X7X/ 213X0	X7X/ 2131D	D

Client Sample ID: RC4-SC-47
Date Collected: 03/30/17 10:50
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-10
Matrix: Solid
Percent Solids: 89.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	1500		68	48	mg/7 g	☼	03/01/4K 40:59	03/05/4K 48:09	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	1D	5B	11 - 9D				X7X/ 213X0	X7X/ 21340X	/X

Client Sample ID: RC4-SC-48
Date Collected: 03/30/17 10:55
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-11
Matrix: Solid
Percent Solids: 81.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	44		1.0	0.84	mg/7 g	☼	03/01/4K 40:59	03/05/4K 48:13	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	49		11 - 9D				X7X/ 213X0	X7X/ 21340 7	D

Client Sample ID: RC4-SC-49
Date Collected: 03/30/17 11:00
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-12
Matrix: Solid
Percent Solids: 82.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	170		K3	2.0	mg/7 g	☼	03/01/4K 40:59	03/05/4K 48:59	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	9D	5B	11 - 9D				X7X/ 213X0	X7X/ 21340	/

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95191-4

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-SC-50
Date Collected: 03/30/17 11:05
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-13
Matrix: Solid
Percent Solids: 89.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	680		26	K4	mg/7 g	☼	03/01/4K 40:59	03/05/4K 49:21	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	7XD	5B	11 - 9D				X72X 213X0	X72X/ 213: 0	DX

Client Sample ID: RC4-SC-51
Date Collected: 03/30/17 11:10
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-14
Matrix: Solid
Percent Solids: 83.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	980		28	K5	mg/7 g	☼	03/01/4K 40:59	03/05/4K 49:38	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	7/ 6	5B	11 - 9D				X72X 213X0	X72X/ 213: 04	DX

Client Sample ID: RC4-SC-52
Date Collected: 03/30/17 11:15
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-15
Matrix: Solid
Percent Solids: 84.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C40)	ND		4.3	0.19	mg/7 g	☼	03/01/4K 40:59	03/05/4K 20:41	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	6D	5	11 - 9D				X72X 213X0	X72X/ 213DX0	9

Client Sample ID: RC4-SC-53
Date Collected: 03/30/17 11:20
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-16
Matrix: Solid
Percent Solids: 79.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	160		K1	2.0	mg/7 g	☼	03/01/4K 40:59	03/05/4K 20:18	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	9XD	8	11 - 9D				X72X 213X0	X72X/ 213DX0 4	/

Client Sample ID: RC4-SC-54
Date Collected: 03/30/17 11:25
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-17
Matrix: Solid
Percent Solids: 88.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	9.7		4.3	0.1K	mg/7 g	☼	03/01/4K 40:59	03/05/4K 24:01	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	17	5	11 - 9D				X72X 213X0	X72X/ 213DX0X	9

Client Sample ID: RC4-SC-55
Date Collected: 03/30/17 11:30
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-18
Matrix: Solid
Percent Solids: 84.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	140		6.9	4.9	mg/7 g	☼	03/01/4K 40:59	03/05/4K 24:28	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	99:	8	11 - 9D				X72X 213X0	X72X/ 213DX04	/

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95191-4

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-SC-56
Date Collected: 03/30/17 11:35
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-19
Matrix: Solid
Percent Solids: 79.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	18		4.3	0.19	mg/7 g	☼	03/03/4K 41:28	03/06/4K 43:06	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	14		11 - 9D				X72X7213 04	X72X6213X70X6	9

Client Sample ID: RC4-SC-57
Date Collected: 03/30/17 11:40
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-20
Matrix: Solid
Percent Solids: 82.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	370		45	3.4	mg/7 g	☼	03/03/4K 41:28	03/06/4K 00:38	40
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	917	8.3	11 - 9D				X72X7213 04	X72X6213X70X4	9X

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-SC-38
Date Collected: 03/30/17 10:05
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-1
Matrix: Solid
Percent Solids: 82.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	750	*	3.9	0.82	mg/7 g	☼	03/01/4K 09:29	03/06/4K 03:14	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	77	5	7: - 99/				X72X 213X 04	X72X6213X70 9	9

Client Sample ID: RC4-SC-39
Date Collected: 03/30/17 10:10
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-2
Matrix: Solid
Percent Solids: 79.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	1600	*	9.1	4.6	mg/7 g	☼	03/01/4K 09:29	03/06/4K 22:52	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	9	5.3	7: - 99/				X72X 213X 04	X72X6213X70 0	D

Client Sample ID: RC4-SC-40
Date Collected: 03/30/17 10:15
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-3
Matrix: Solid
Percent Solids: 79.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	6000	*	39	8.1	mg/7 g	☼	03/01/4K 09:29	03/06/4K 21:46	40
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	: DX	5.3	7: - 99/				X72X 213X 04	X72X6213X70 06	9X

Client Sample ID: RC4-SC-41
Date Collected: 03/30/17 10:20
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-4
Matrix: Solid
Percent Solids: 82.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	42000		230	30	mg/7 g	☼	03/06/4K 41:00	03/44/4K 24:05	40
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	7777	5.3	7: - 99/				X72X6213 0X	X72X9213X70X	9X

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95191-4

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-SC-42
Date Collected: 03/30/17 10:25
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-5
Matrix: Solid
Percent Solids: 83.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	2100	*	9.5	4.6	mg/7 g	☼	03/01/4K 09:29	03/06/4K 21:34	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	6:	8	7: - 99/				X7X 213X D	X7X621D 09	D

Client Sample ID: RC4-SC-43
Date Collected: 03/30/17 10:30
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-6
Matrix: Solid
Percent Solids: 84.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	1300	*	9.3	4.6	mg/7 g	☼	03/01/4K 09:29	03/0K/4K 00:05	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	71	5B	7: - 99/				X7X 213X D	X7X1213XX0X	D

Client Sample ID: RC4-SC-44
Date Collected: 03/30/17 10:35
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-7
Matrix: Solid
Percent Solids: 90.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	7000	*	31	K1	mg/7 g	☼	03/01/4K 09:29	03/0K/4K 00:10	40
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	D4	5B	7: - 99/				X7X 213X D	X7X1213XX0 X	9X

Client Sample ID: RC4-SC-45
Date Collected: 03/30/17 10:40
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-8
Matrix: Solid
Percent Solids: 82.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	2300	*	22	1.K	mg/7 g	☼	03/01/4K 09:29	03/0K/4K 00:53	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	7/	5B	7: - 99/				X7X 213X D	X7X1213XX07	/

Client Sample ID: RC4-SC-46
Date Collected: 03/30/17 10:45
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-9
Matrix: Solid
Percent Solids: 82.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	2100	*	23	3.4	mg/7 g	☼	03/01/4K 09:29	03/0K/4K 04:49	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(3Surr)	1	5B	7: - 99/				X7X 213X D	X7X1213X90:	/

Client Sample ID: RC4-SC-47
Date Collected: 03/30/17 10:50
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-10
Matrix: Solid
Percent Solids: 89.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	5500	*	33	K3	mg/7 g	☼	03/01/4K 09:29	03/0K/4K 04:33	40
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(3Surr)	6: :	5B	7: - 99/				X7X 213X D	X7X1213X907	9X

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95191-4

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-SC-48
Date Collected: 03/30/17 10:55
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-11
Matrix: Solid
Percent Solids: 81.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	2700	*	23	3.4	mg/7 g	☼	03/01/4K 09:29	03/0K/4K 02:08	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	6	5B	7: - 99/				X72X 213X D	X72X1213XDX4	/

Client Sample ID: RC4-SC-49
Date Collected: 03/30/17 11:00
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-12
Matrix: Solid
Percent Solids: 82.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	7000	*	38	8.4	mg/7 g	☼	03/01/4K 09:29	03/0K/4K 02:11	40
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	69	8	7: - 99/				X72X 213X D	X72X1213XD0	9X

Client Sample ID: RC4-SC-50
Date Collected: 03/30/17 11:05
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-13
Matrix: Solid
Percent Solids: 89.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	14000		85	43	mg/7 g	☼	03/03/4K 40:21	03/40/4K 41:21	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	919X	5	7: - 99/				X72X7213XD	X72X213 D	D

Client Sample ID: RC4-SC-51
Date Collected: 03/30/17 11:10
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-14
Matrix: Solid
Percent Solids: 83.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	16000		89	45	mg/7 g	☼	03/03/4K 40:21	03/40/4K 43:1K	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	1	5	7: - 99/				X72X7213XD	X72X21370 1	D

Client Sample ID: RC4-SC-52
Date Collected: 03/30/17 11:15
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-15
Matrix: Solid
Percent Solids: 84.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	160		3.1	0.K3	mg/7 g	☼	03/03/4K 40:21	03/0K/4K 46:1K	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	9D9	5	7: - 99/				X72X7213XD	X72X121360 1	9

Client Sample ID: RC4-SC-53
Date Collected: 03/30/17 11:20
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-16
Matrix: Solid
Percent Solids: 79.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	4600		25	3.1	mg/7 g	☼	03/03/4K 40:21	03/40/4K 45:04	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	D	5B	7: - 99/				X72X7213XD	X72X213/ 0X9	/

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95191-4

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-SC-54
Date Collected: 03/30/17 11:25
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-17
Matrix: Solid
Percent Solids: 88.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	5700		33	K5	mg/7 g	☼	03/03/4K 40:21	03/40/4K 45:26	40
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl(Surr)	DD	5.3	7: - 99/				X72X213XD	X72X213/ D6	9X

Client Sample ID: RC4-SC-55
Date Collected: 03/30/17 11:30
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-18
Matrix: Solid
Percent Solids: 84.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	40000		220	1K	mg/7 g	☼	03/03/4K 40:21	03/40/4K 45:50	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl(Surr)	7.41	8.3	7: - 99/				X72X213XD	X72X213/ 0X	/

Client Sample ID: RC4-SC-56
Date Collected: 03/30/17 11:35
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-19
Matrix: Solid
Percent Solids: 79.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	530		3.9	0.81	mg/7 g	☼	03/03/4K 40:21	03/0K/4K 48:34	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl(Surr)	6D		7: - 99/				X72X213XD	X72X213/ 09	9

Client Sample ID: RC4-SC-57
Date Collected: 03/30/17 11:40
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-20
Matrix: Solid
Percent Solids: 82.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	1400		9.K	4.6	mg/7 g	☼	03/03/4K 40:21	03/40/4K 46:45	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl(Surr)	/	5	7: - 99/				X72X213XD	X72X213/ 60/	D

General Chemistry

Client Sample ID: RC4-SC-38
Date Collected: 03/30/17 10:05
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-1
Matrix: Solid
Percent Solids: 82.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.4		0.4	0.4	%	-		03/04/4K 46:36	4
Percent Solids	82.6		0.4	0.4	%	-		03/04/4K 46:36	4

Client Sample ID: RC4-SC-39
Date Collected: 03/30/17 10:10
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-2
Matrix: Solid
Percent Solids: 79.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.7		0.4	0.4	%	-		03/04/4K 46:36	4
Percent Solids	79.3		0.4	0.4	%	-		03/04/4K 46:36	4

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95191-4

General Chemistry

Client Sample ID: RC4-SC-40
Date Collected: 03/30/17 10:15
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-3
Matrix: Solid
Percent Solids: 79.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.7		0.4	0.4	%			03/04/4K 46:36	4
Percent Solids	79.3		0.4	0.4	%			03/04/4K 46:36	4

Client Sample ID: RC4-SC-41
Date Collected: 03/30/17 10:20
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-4
Matrix: Solid
Percent Solids: 82.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.6		0.4	0.4	%			03/04/4K 46:36	4
Percent Solids	82.4		0.4	0.4	%			03/04/4K 46:36	4

Client Sample ID: RC4-SC-42
Date Collected: 03/30/17 10:25
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-5
Matrix: Solid
Percent Solids: 83.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.3		0.4	0.4	%			03/04/4K 46:36	4
Percent Solids	83.7		0.4	0.4	%			03/04/4K 46:36	4

Client Sample ID: RC4-SC-43
Date Collected: 03/30/17 10:30
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-6
Matrix: Solid
Percent Solids: 84.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.8		0.4	0.4	%			03/04/4K 46:36	4
Percent Solids	84.2		0.4	0.4	%			03/04/4K 46:36	4

Client Sample ID: RC4-SC-44
Date Collected: 03/30/17 10:35
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-7
Matrix: Solid
Percent Solids: 90.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.6		0.4	0.4	%			03/04/4K 46:36	4
Percent Solids	90.4		0.4	0.4	%			03/04/4K 46:36	4

Client Sample ID: RC4-SC-45
Date Collected: 03/30/17 10:40
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-8
Matrix: Solid
Percent Solids: 82.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.6		0.4	0.4	%			03/04/4K 46:36	4
Percent Solids	82.4		0.4	0.4	%			03/04/4K 46:36	4

Client Sample ID: RC4-SC-46
Date Collected: 03/30/17 10:45
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-9
Matrix: Solid
Percent Solids: 82.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.0		0.4	0.4	%			03/04/4K 46:36	4
Percent Solids	82.0		0.4	0.4	%			03/04/4K 46:36	4

Client Sample ID: RC4-SC-47
Date Collected: 03/30/17 10:50
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-10
Matrix: Solid
Percent Solids: 89.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.7		0.4	0.4	%			03/04/4K 46:36	4
Percent Solids	89.3		0.4	0.4	%			03/04/4K 46:36	4

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95191-4

General Chemistry

Client Sample ID: RC4-SC-48
Date Collected: 03/30/17 10:55
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-11
Matrix: Solid
Percent Solids: 81.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.9		0.4	0.4	%			03/04/4K 46:36	4
Percent Solids	81.1		0.4	0.4	%			03/04/4K 46:36	4

Client Sample ID: RC4-SC-49
Date Collected: 03/30/17 11:00
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-12
Matrix: Solid
Percent Solids: 82.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.5		0.4	0.4	%			03/04/4K 46:36	4
Percent Solids	82.5		0.4	0.4	%			03/04/4K 46:36	4

Client Sample ID: RC4-SC-50
Date Collected: 03/30/17 11:05
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-13
Matrix: Solid
Percent Solids: 89.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.3		0.4	0.4	%			03/04/4K 46:36	4
Percent Solids	89.7		0.4	0.4	%			03/04/4K 46:36	4

Client Sample ID: RC4-SC-51
Date Collected: 03/30/17 11:10
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-14
Matrix: Solid
Percent Solids: 83.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.1		0.4	0.4	%			03/04/4K 46:36	4
Percent Solids	83.9		0.4	0.4	%			03/04/4K 46:36	4

Client Sample ID: RC4-SC-52
Date Collected: 03/30/17 11:15
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-15
Matrix: Solid
Percent Solids: 84.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.3		0.4	0.4	%			03/04/4K 46:36	4
Percent Solids	84.7		0.4	0.4	%			03/04/4K 46:36	4

Client Sample ID: RC4-SC-53
Date Collected: 03/30/17 11:20
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-16
Matrix: Solid
Percent Solids: 79.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.5		0.4	0.4	%			03/04/4K 46:36	4
Percent Solids	79.5		0.4	0.4	%			03/04/4K 46:36	4

Client Sample ID: RC4-SC-54
Date Collected: 03/30/17 11:25
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-17
Matrix: Solid
Percent Solids: 88.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.2		0.4	0.4	%			03/04/4K 46:36	4
Percent Solids	88.8		0.4	0.4	%			03/04/4K 46:36	4

Client Sample ID: RC4-SC-55
Date Collected: 03/30/17 11:30
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-18
Matrix: Solid
Percent Solids: 84.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.4		0.4	0.4	%			03/04/4K 46:36	4
Percent Solids	84.6		0.4	0.4	%			03/04/4K 46:36	4

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95191-4

General Chemistry

Client Sample ID: RC4-SC-56
Date Collected: 03/30/17 11:35
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-19
Matrix: Solid
Percent Solids: 79.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.8		0.4	0.4	%			03/04/4K 46:36	4
Percent Solids	79.2		0.4	0.4	%			03/04/4K 46:36	4

Client Sample ID: RC4-SC-57
Date Collected: 03/30/17 11:40
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-20
Matrix: Solid
Percent Solids: 82.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.9		0.4	0.4	%			03/04/4K 46:36	4
Percent Solids	82.1		0.4	0.4	%			03/04/4K 46:36	4

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	TFT1 (77-123)
280-95393-1	RC4-SC-38	78
280-95393-2	RC4-SC-39	80
280-95393-3	RC4-SC-40	312 X D
280-95393-4	RC4-SC-41	1926 X D
280-95393-5	RC4-SC-42	345 X D
280-95393-6	RC4-SC-43	79
280-95393-7	RC4-SC-44	124 X D
280-95393-8	RC4-SC-45	83 D
280-95393-9	RC4-SC-46	80
280-95393-10	RC4-SC-47	729 X D
280-95393-11	RC4-SC-48	81
280-95393-12	RC4-SC-49	129 X D
280-95393-13	RC4-SC-50	402 X D
280-95393-14	RC4-SC-51	456 X D
280-95393-15	RC4-SC-52	62 X
280-95393-16	RC4-SC-53	102 D
280-95393-17	RC4-SC-54	74 X
280-95393-18	RC4-SC-55	119 D
280-95393-19	RC4-SC-56	78
280-95393-20	RC4-SC-57	174 D X
LCS 280-367815/2-A	Lab Control Sample	84
LCS 280-368014/2-A	Lab Control Sample	97
MB 280-367815/1-A	Method Blank	84
MB 280-368014/1-A	Method Blank	95

Surrogate Legend

TFT = a,a,a-Trifluorotoluene

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	OTPH1 (49-115)
280-95393-1	RC4-SC-38	44 X
280-95393-2	RC4-SC-39	31 X D
280-95393-3	RC4-SC-40	920 X D
280-95393-4	RC4-SC-41	4444 X D
280-95393-5	RC4-SC-42	69 D
280-95393-6	RC4-SC-43	47 X D
280-95393-7	RC4-SC-44	28 X D
280-95393-8	RC4-SC-45	45 X D
280-95393-9	RC4-SC-46	37 X D
280-95393-10	RC4-SC-47	699 X D
280-95393-11	RC4-SC-48	36 X D
280-95393-12	RC4-SC-49	61 D
280-95393-13	RC4-SC-50	1710 X
280-95393-13 MS	RC4-SC-50	1697 X
280-95393-13 MSD	RC4-SC-50	57

TestAmerica Denver

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

(Continued)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	OTPH1 (49-115)					
280-95393-14	RC4-SC-51	37 X					
280-95393-15	RC4-SC-52	121 X					
280-95393-16	RC4-SC-53	23 X D					
280-95393-17	RC4-SC-54	22 X D					
280-95393-18	RC4-SC-55	4387 D X					
280-95393-19	RC4-SC-56	62					
280-95393-20	RC4-SC-57	35 X					
LCS 280-367732/2-A	Lab Control Sample	177 X					
LCS 280-367936/2-A	Lab Control Sample	114					
LCS 280-368299/2-A	Lab Control Sample	123 X					
MB 280-367732/1-A	Method Blank	124 X					
MB 280-367936/1-A	Method Blank	115					
MB 280-368299/1-A	Method Blank	120 X					

Surrogate Legend

OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Lab Sample ID: MB 280-367815/1-A

Matrix: Solid

Analysis Batch: 368173

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 367815

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.2	0.33	mg/Kg		04/03/17 10:59	04/05/17 12:46	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	84		77 - 123				04/03/17 10:59	04/05/17 12:46	1

Lab Sample ID: LCS 280-367815/2-A

Matrix: Solid

Analysis Batch: 368173

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 367815

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
GRO (C6-C10)	5.50	5.99		mg/Kg		109	85 - 153		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
a,a,a-Trifluorotoluene	84		77 - 123						

Lab Sample ID: MB 280-368014/1-A

Matrix: Solid

Analysis Batch: 368285

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 368014

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.2	0.33	mg/Kg		04/04/17 13:28	04/05/17 23:33	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	95		77 - 123				04/04/17 13:28	04/05/17 23:33	1

Lab Sample ID: LCS 280-368014/2-A

Matrix: Solid

Analysis Batch: 368285

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 368014

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
GRO (C6-C10)	5.50	6.31		mg/Kg		115	85 - 153		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
a,a,a-Trifluorotoluene	97		77 - 123						

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 280-367732/1-A

Matrix: Solid

Analysis Batch: 368312

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 367732

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		4.0	0.68	mg/Kg		04/03/17 09:29	04/06/17 03:42	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	124	X	49 - 115				04/03/17 09:29	04/06/17 03:42	1

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: LCS 280-367732/2-A

Matrix: Solid

Analysis Batch: 368312

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 367732

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28)	66.7	93.3	*	mg/Kg		140	53 - 115
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
o-Terphenyl (Surr)	177	X	49 - 115				

Lab Sample ID: MB 280-367936/1-A

Matrix: Solid

Analysis Batch: 368632

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 367936

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		4.0	0.68	mg/Kg		04/04/17 10:23	04/10/17 12:59	1
Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac			
o-Terphenyl (Surr)	115		49 - 115	04/04/17 10:23	04/10/17 12:59	1			

Lab Sample ID: LCS 280-367936/2-A

Matrix: Solid

Analysis Batch: 368505

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 367936

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28)	66.7	65.9		mg/Kg		99	53 - 115
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
o-Terphenyl (Surr)	114		49 - 115				

Lab Sample ID: 280-95393-13 MS

Matrix: Solid

Analysis Batch: 368632

Client Sample ID: RC4-SC-50

Prep Type: Total/NA

Prep Batch: 367936

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28)	14000		67.8	14500	4	mg/Kg	☼	332	56 - 115
Surrogate	MS %Recovery	MS Qualifier	Limits						
o-Terphenyl (Surr)	1697	X	49 - 115						

Lab Sample ID: 280-95393-13 MSD

Matrix: Solid

Analysis Batch: 368632

Client Sample ID: RC4-SC-50

Prep Type: Total/NA

Prep Batch: 367936

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
DRO (C10-C28)	14000		73.1	12600	4	mg/Kg	☼	-2412	56 - 115	15	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
o-Terphenyl (Surr)	57		49 - 115								

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: MB 280-368299/1-A

Matrix: Solid

Analysis Batch: 368913

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 368299

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		4.0	0.68	mg/Kg		04/06/17 13:00	04/11/17 20:16	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	120	X	49 - 115				04/06/17 13:00	04/11/17 20:16	1

Lab Sample ID: LCS 280-368299/2-A

Matrix: Solid

Analysis Batch: 368913

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 368299

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
DRO (C10-C28)	66.7	71.2		mg/Kg		107	53 - 115
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
o-Terphenyl (Surr)	123	X	49 - 115				

Method: Moisture - Percent Moisture

Lab Sample ID: 280-95393-1 DU

Matrix: Solid

Analysis Batch: 367692

Client Sample ID: RC4-SC-38

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Percent Moisture	17.4		17.0		%		2	20
Percent Solids	82.6		83.0		%		0.4	20

Lab Sample ID: 280-95393-19 DU

Matrix: Solid

Analysis Batch: 367692

Client Sample ID: RC4-SC-56

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Percent Moisture	20.8		21.0		%		0.5	20
Percent Solids	79.2		79.0		%		0.1	20

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95797-1

GC VOA

Prep Batch: 367815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-1	RC3-SC-78	Total/4 A	Solid	5075	
280-95797-2	RC3-SC-79	Total/4 A	Solid	5075	
280-95797-7	RC3-SC-30	Total/4 A	Solid	5075	
280-95797-3	RC3-SC-31	Total/4 A	Solid	5075	
280-95797-5	RC3-SC-32	Total/4 A	Solid	5075	
280-95797-N	RC3-SC-37	Total/4 A	Solid	5075	
280-95797-6	RC3-SC-33	Total/4 A	Solid	5075	
280-95797-8	RC3-SC-35	Total/4 A	Solid	5075	
280-95797-9	RC3-SC-3N	Total/4 A	Solid	5075	
280-95797-10	RC3-SC-36	Total/4 A	Solid	5075	
280-95797-11	RC3-SC-38	Total/4 A	Solid	5075	
280-95797-12	RC3-SC-39	Total/4 A	Solid	5075	
280-95797-17	RC3-SC-50	Total/4 A	Solid	5075	
280-95797-13	RC3-SC-51	Total/4 A	Solid	5075	
280-95797-15	RC3-SC-52	Total/4 A	Solid	5075	
280-95797-1N	RC3-SC-57	Total/4 A	Solid	5075	
280-95797-16	RC3-SC-53	Total/4 A	Solid	5075	
280-95797-18	RC3-SC-55	Total/4 A	Solid	5075	
MB 280-7N6815/1-A	Method Blank	Total/4 A	Solid	5075	
LCS 280-7N6815/2-A	Lab Control Sample	Total/4 A	Solid	5075	

Prep Batch: 368014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-19	RC3-SC-5N	Total/4 A	Solid	5075	
280-95797-20	RC3-SC-56	Total/4 A	Solid	5075	
MB 280-7N8013/1-A	Method Blank	Total/4 A	Solid	5075	
LCS 280-7N8013/2-A	Lab Control Sample	Total/4 A	Solid	5075	

Analysis Batch: 368173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-1	RC3-SC-78	Total/4 A	Solid	8015C	7N6815
280-95797-2	RC3-SC-79	Total/4 A	Solid	8015C	7N6815
280-95797-7	RC3-SC-30	Total/4 A	Solid	8015C	7N6815
280-95797-3	RC3-SC-31	Total/4 A	Solid	8015C	7N6815
280-95797-5	RC3-SC-32	Total/4 A	Solid	8015C	7N6815
280-95797-N	RC3-SC-37	Total/4 A	Solid	8015C	7N6815
280-95797-6	RC3-SC-33	Total/4 A	Solid	8015C	7N6815
280-95797-8	RC3-SC-35	Total/4 A	Solid	8015C	7N6815
280-95797-9	RC3-SC-3N	Total/4 A	Solid	8015C	7N6815
280-95797-10	RC3-SC-36	Total/4 A	Solid	8015C	7N6815
280-95797-11	RC3-SC-38	Total/4 A	Solid	8015C	7N6815
280-95797-12	RC3-SC-39	Total/4 A	Solid	8015C	7N6815
280-95797-17	RC3-SC-50	Total/4 A	Solid	8015C	7N6815
280-95797-13	RC3-SC-51	Total/4 A	Solid	8015C	7N6815
280-95797-15	RC3-SC-52	Total/4 A	Solid	8015C	7N6815
280-95797-1N	RC3-SC-57	Total/4 A	Solid	8015C	7N6815
280-95797-16	RC3-SC-53	Total/4 A	Solid	8015C	7N6815
280-95797-18	RC3-SC-55	Total/4 A	Solid	8015C	7N6815
MB 280-7N6815/1-A	Method Blank	Total/4 A	Solid	8015C	7N6815
LCS 280-7N6815/2-A	Lab Control Sample	Total/4 A	Solid	8015C	7N6815

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95797-1

GC VOA (Continued)

Analysis Batch: 368285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-20	RC3-SC-56	Total/4 A	Solid	8015C	7N8013
MB 280-7N8013/1-A	Method Blank	Total/4 A	Solid	8015C	7N8013
LCS 280-7N8013/2-A	Lab Control Sample	Total/4 A	Solid	8015C	7N8013

Analysis Batch: 368351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-19	RC3-SC-5N	Total/4 A	Solid	8015C	7N8013

GC Semi VOA

Prep Batch: 367732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-1	RC3-SC-78	Total/4 A	Solid	753N	
280-95797-2	RC3-SC-79	Total/4 A	Solid	753N	
280-95797-7	RC3-SC-30	Total/4 A	Solid	753N	
280-95797-5	RC3-SC-32	Total/4 A	Solid	753N	
280-95797-N	RC3-SC-37	Total/4 A	Solid	753N	
280-95797-6	RC3-SC-33	Total/4 A	Solid	753N	
280-95797-8	RC3-SC-35	Total/4 A	Solid	753N	
280-95797-9	RC3-SC-3N	Total/4 A	Solid	753N	
280-95797-10	RC3-SC-36	Total/4 A	Solid	753N	
280-95797-11	RC3-SC-38	Total/4 A	Solid	753N	
280-95797-12	RC3-SC-39	Total/4 A	Solid	753N	
MB 280-7N6672/1-A	Method Blank	Total/4 A	Solid	753N	
LCS 280-7N6672/2-A	Lab Control Sample	Total/4 A	Solid	753N	

Prep Batch: 367936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-17	RC3-SC-50	Total/4 A	Solid	753N	
280-95797-13	RC3-SC-51	Total/4 A	Solid	753N	
280-95797-15	RC3-SC-52	Total/4 A	Solid	753N	
280-95797-1N	RC3-SC-57	Total/4 A	Solid	753N	
280-95797-16	RC3-SC-53	Total/4 A	Solid	753N	
280-95797-18	RC3-SC-55	Total/4 A	Solid	753N	
280-95797-19	RC3-SC-5N	Total/4 A	Solid	753N	
280-95797-20	RC3-SC-56	Total/4 A	Solid	753N	
MB 280-7N697N1-A	Method Blank	Total/4 A	Solid	753N	
LCS 280-7N697N2-A	Lab Control Sample	Total/4 A	Solid	753N	
280-95797-17 MS	RC3-SC-50	Total/4 A	Solid	753N	
280-95797-17 MSD	RC3-SC-50	Total/4 A	Solid	753N	

Prep Batch: 368299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-3	RC3-SC-31	Total/4 A	Solid	753N	
MB 280-7N8299/1-A	Method Blank	Total/4 A	Solid	753N	
LCS 280-7N8299/2-A	Lab Control Sample	Total/4 A	Solid	753N	

Analysis Batch: 368312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-1	RC3-SC-78	Total/4 A	Solid	8015C	7N6672

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95797-1

GC Semi VOA (Continued)

Analysis Batch: 368312 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-7N6672/1-A	Method Blank	Total/4 A	Solid	8015C	7N6672
LCS 280-7N6672/2-A	Lab Control Sample	Total/4 A	Solid	8015C	7N6672

Analysis Batch: 368348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-2	RC3-SC-79	Total/4 A	Solid	8015C	7N6672
280-95797-7	RC3-SC-30	Total/4 A	Solid	8015C	7N6672
280-95797-5	RC3-SC-32	Total/4 A	Solid	8015C	7N6672
280-95797-N	RC3-SC-37	Total/4 A	Solid	8015C	7N6672
280-95797-6	RC3-SC-33	Total/4 A	Solid	8015C	7N6672
280-95797-8	RC3-SC-35	Total/4 A	Solid	8015C	7N6672
280-95797-9	RC3-SC-3N	Total/4 A	Solid	8015C	7N6672
280-95797-10	RC3-SC-36	Total/4 A	Solid	8015C	7N6672
280-95797-11	RC3-SC-38	Total/4 A	Solid	8015C	7N6672
280-95797-12	RC3-SC-39	Total/4 A	Solid	8015C	7N6672

Analysis Batch: 368505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-15	RC3-SC-52	Total/4 A	Solid	8015C	7N697N
280-95797-19	RC3-SC-5N	Total/4 A	Solid	8015C	7N697N
LCS 280-7N697N2-A	Lab Control Sample	Total/4 A	Solid	8015C	7N697N

Analysis Batch: 368632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-17	RC3-SC-50	Total/4 A	Solid	8015C	7N697N
280-95797-13	RC3-SC-51	Total/4 A	Solid	8015C	7N697N
280-95797-1N	RC3-SC-57	Total/4 A	Solid	8015C	7N697N
280-95797-16	RC3-SC-53	Total/4 A	Solid	8015C	7N697N
280-95797-18	RC3-SC-55	Total/4 A	Solid	8015C	7N697N
280-95797-20	RC3-SC-56	Total/4 A	Solid	8015C	7N697N
MB 280-7N697N1-A	Method Blank	Total/4 A	Solid	8015C	7N697N
280-95797-17 MS	RC3-SC-50	Total/4 A	Solid	8015C	7N697N
280-95797-17 MSD	RC3-SC-50	Total/4 A	Solid	8015C	7N697N

Analysis Batch: 368913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-3	RC3-SC-31	Total/4 A	Solid	8015C	7N8299
MB 280-7N8299/1-A	Method Blank	Total/4 A	Solid	8015C	7N8299
LCS 280-7N8299/2-A	Lab Control Sample	Total/4 A	Solid	8015C	7N8299

General Chemistry

Analysis Batch: 367692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-1	RC3-SC-78	Total/4 A	Solid	Moisture	
280-95797-2	RC3-SC-79	Total/4 A	Solid	Moisture	
280-95797-7	RC3-SC-30	Total/4 A	Solid	Moisture	
280-95797-3	RC3-SC-31	Total/4 A	Solid	Moisture	
280-95797-5	RC3-SC-32	Total/4 A	Solid	Moisture	
280-95797-N	RC3-SC-37	Total/4 A	Solid	Moisture	

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95797-1

General Chemistry (Continued)

Analysis Batch: 367692 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-6	RC3-SC-33	Total/4 A	Solid	Moisture	
280-95797-8	RC3-SC-35	Total/4 A	Solid	Moisture	
280-95797-9	RC3-SC-3N	Total/4 A	Solid	Moisture	
280-95797-10	RC3-SC-36	Total/4 A	Solid	Moisture	
280-95797-11	RC3-SC-38	Total/4 A	Solid	Moisture	
280-95797-12	RC3-SC-39	Total/4 A	Solid	Moisture	
280-95797-17	RC3-SC-50	Total/4 A	Solid	Moisture	
280-95797-13	RC3-SC-51	Total/4 A	Solid	Moisture	
280-95797-15	RC3-SC-52	Total/4 A	Solid	Moisture	
280-95797-1N	RC3-SC-57	Total/4 A	Solid	Moisture	
280-95797-16	RC3-SC-53	Total/4 A	Solid	Moisture	
280-95797-18	RC3-SC-55	Total/4 A	Solid	Moisture	
280-95797-19	RC3-SC-5N	Total/4 A	Solid	Moisture	
280-95797-20	RC3-SC-56	Total/4 A	Solid	Moisture	
280-95797-1 DU	RC3-SC-78	Total/4 A	Solid	Moisture	
280-95797-19 DU	RC3-SC-5N	Total/4 A	Solid	Moisture	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-1

Client Sample ID: RC4-SC-18

Date Collecte3: 01/10/M7 MD:05

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-M

x atrid: Soli3

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-18

Date Collecte3: 01/10/M7 MD:05

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-M

x atrid: Soli3

Percent Soli3s: 82.v

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Prep	5035			5.25 g	5 mL	367815	04/03/17 10:59	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368173	04/05/17 14:00	KDK	TAL DEN
Total/NA	Prep	3546			29.9 g	1 mL	367732	04/03/17 09:29	KI	TAL DEN
Total/NA	Analysis	8015C		1			368312	04/06/17 04:31	TEM	TAL DEN

Client Sample ID: RC4-SC-19

Date Collecte3: 01/10/M7 MD:MD

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-2

x atrid: Soli3

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-19

Date Collecte3: 01/10/M7 MD:MD

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-2

x atrid: Soli3

Percent Soli3s: 79.1

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	367815	04/03/17 10:59	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368173	04/05/17 14:25	KDK	TAL DEN
Total/NA	Prep	3546			32.7 g	1 mL	367732	04/03/17 09:29	KI	TAL DEN
Total/NA	Analysis	8015C		2			368348	04/06/17 22:52	TEM	TAL DEN

Client Sample ID: RC4-SC-40

Date Collecte3: 01/10/M7 MD:M5

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-1

x atrid: Soli3

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-40

Date Collecte3: 01/10/M7 MD:M5

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-1

x atrid: Soli3

Percent Soli3s: 79.1

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Prep	5035			5.25 g	5 mL	367815	04/03/17 10:59	KDK	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-1

Client Sample ID: RC4-SC-40

Date Collecte3: 01/10/M7 MD:M5

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-1

x atrid: Soli3

Percent Soli3s: 79.1

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Analysis	8015C		20	0.1 mL	5 mL	368173	04/05/17 14:50	KDK	TAL DEN
Total/NA	Prep	3546			30.9 g	1 mL	367732	04/03/17 09:29	KI	TAL DEN
Total/NA	Analysis	8015C		10			368348	04/06/17 23:16	TEM	TAL DEN

Client Sample ID: RC4-SC-4M

Date Collecte3: 01/10/M7 MD:20

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-4

x atrid: Soli3

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-4M

Date Collecte3: 01/10/M7 MD:20

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-4

x atrid: Soli3

Percent Soli3s: 82.4

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Prep	5035			4.90 g	5 mL	367815	04/03/17 10:59	KDK	TAL DEN
Total/NA	Analysis	8015C		50	0.1 mL	5 mL	368173	04/05/17 15:15	KDK	TAL DEN
Total/NA	Prep	3546			30.6 g	5 mL	368299	04/06/17 13:00	DFB1	TAL DEN
Total/NA	Analysis	8015C		10			368913	04/11/17 21:05	TEM	TAL DEN

Client Sample ID: RC4-SC-42

Date Collecte3: 01/10/M7 MD:25

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-5

x atrid: Soli3

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-42

Date Collecte3: 01/10/M7 MD:25

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-5

x atrid: Soli3

Percent Soli3s: 81.7

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Prep	5035			5.22 g	5 mL	367815	04/03/17 10:59	KDK	TAL DEN
Total/NA	Analysis	8015C		10	0.1 mL	5 mL	368173	04/05/17 15:40	KDK	TAL DEN
Total/NA	Prep	3546			30.3 g	1 mL	367732	04/03/17 09:29	KI	TAL DEN
Total/NA	Analysis	8015C		2			368348	04/06/17 23:41	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-1

Client Sample ID: RC4-SC-41

Date Collecte3: 01/10/M7 MD:10

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-v

x atrid: Soli3

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-41

Date Collecte3: 01/10/M7 MD:10

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-v

x atrid: Soli3

Percent Soli3s: 84.2

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Prep	5035			4.91 g	5 mL	367815	04/03/17 10:59	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368173	04/05/17 16:05	KDK	TAL DEN
Total/NA	Prep	3546			30.2 g	1 mL	367732	04/03/17 09:29	KI	TAL DEN
Total/NA	Analysis	8015C		2			368348	04/07/17 00:05	TEM	TAL DEN

Client Sample ID: RC4-SC-44

Date Collecte3: 01/10/M7 MD:15

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-7

x atrid: Soli3

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-44

Date Collecte3: 01/10/M7 MD:15

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-7

x atrid: Soli3

Percent Soli3s: 90.4

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Prep	5035			4.90 g	5 mL	367815	04/03/17 10:59	KDK	TAL DEN
Total/NA	Analysis	8015C		5	0.1 mL	5 mL	368173	04/05/17 16:29	KDK	TAL DEN
Total/NA	Prep	3546			31.0 g	1 mL	367732	04/03/17 09:29	KI	TAL DEN
Total/NA	Analysis	8015C		10			368348	04/07/17 00:30	TEM	TAL DEN

Client Sample ID: RC4-SC-45

Date Collecte3: 01/10/M7 MD:40

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-8

x atrid: Soli3

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-45

Date Collecte3: 01/10/M7 MD:40

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-8

x atrid: Soli3

Percent Soli3s: 82.4

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Prep	5035			5.23 g	5 mL	367815	04/03/17 10:59	KDK	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-1

Client Sample ID: RC4-SC-45

Date Collecte3: 01/10/M7 MD:40

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-8

x atrid: Soli3

Percent Soli3s: 82.4

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Analysis	8015C		5	0.1 mL	5 mL	368173	04/05/17 16:54	KDK	TAL DEN
Total/NA	Prep	3546			33.0 g	1 mL	367732	04/03/17 09:29	KI	TAL DEN
Total/NA	Analysis	8015C		5			368348	04/07/17 00:54	TEM	TAL DEN

Client Sample ID: RC4-SC-4v

Date Collecte3: 01/10/M7 MD:45

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-9

x atrid: Soli3

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-4v

Date Collecte3: 01/10/M7 MD:45

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-9

x atrid: Soli3

Percent Soli3s: 82.0

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Prep	5035			4.94 g	5 mL	367815	04/03/17 10:59	KDK	TAL DEN
Total/NA	Analysis	8015C		2	0.1 mL	5 mL	368173	04/05/17 17:19	KDK	TAL DEN
Total/NA	Prep	3546			30.5 g	1 mL	367732	04/03/17 09:29	KI	TAL DEN
Total/NA	Analysis	8015C		5			368348	04/07/17 01:19	TEM	TAL DEN

Client Sample ID: RC4-SC-47

Date Collecte3: 01/10/M7 MD:50

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-MD

x atrid: Soli3

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-47

Date Collecte3: 01/10/M7 MD:50

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-MD

x atrid: Soli3

Percent Soli3s: 89.1

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Prep	5035			4.94 g	5 mL	367815	04/03/17 10:59	KDK	TAL DEN
Total/NA	Analysis	8015C		50	0.1 mL	5 mL	368173	04/05/17 18:09	KDK	TAL DEN
Total/NA	Prep	3546			30.7 g	1 mL	367732	04/03/17 09:29	KI	TAL DEN
Total/NA	Analysis	8015C		10			368348	04/07/17 01:44	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-1

Client Sample ID: RC4-SC-48

Lab Sample ID: 280-95191-MM

Date Collecte3: 01/10/17 10:55

x atrid: Soli3

Date Recei6e3: 01/11/17 11:55

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-48

Lab Sample ID: 280-95191-MM

Date Collecte3: 01/10/17 10:55

x atrid: Soli3

Date Recei6e3: 01/11/17 11:55

Percent Soli3s: 8MM

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	367815	04/03/17 10:59	KDK	TAL DEN
Total/NA	Analysis	8015C		2	0.1 mL	5 mL	368173	04/05/17 18:34	KDK	TAL DEN
Total/NA	Prep	3546			30.4 g	1 mL	367732	04/03/17 09:29	KI	TAL DEN
Total/NA	Analysis	8015C		5			368348	04/07/17 02:08	TEM	TAL DEN

Client Sample ID: RC4-SC-49

Lab Sample ID: 280-95191-M2

Date Collecte3: 01/10/17 11:00

x atrid: Soli3

Date Recei6e3: 01/11/17 11:55

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-49

Lab Sample ID: 280-95191-M2

Date Collecte3: 01/10/17 11:00

x atrid: Soli3

Date Recei6e3: 01/11/17 11:55

Percent Soli3s: 82.5

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Prep	5035			4.93 g	5 mL	367815	04/03/17 10:59	KDK	TAL DEN
Total/NA	Analysis	8015C		5	0.1 mL	5 mL	368173	04/05/17 18:59	KDK	TAL DEN
Total/NA	Prep	3546			30.5 g	1 mL	367732	04/03/17 09:29	KI	TAL DEN
Total/NA	Analysis	8015C		10			368348	04/07/17 02:33	TEM	TAL DEN

Client Sample ID: RC4-SC-50

Lab Sample ID: 280-95191-M1

Date Collecte3: 01/10/17 11:05

x atrid: Soli3

Date Recei6e3: 01/11/17 11:55

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-50

Lab Sample ID: 280-95191-M1

Date Collecte3: 01/10/17 11:05

x atrid: Soli3

Date Recei6e3: 01/11/17 11:55

Percent Soli3s: 89.v

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Prep	5035			5.11 g	5 mL	367815	04/03/17 10:59	KDK	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-1

Client Sample ID: RC4-SC-50

Date Collecte3: 01/10/17 MM05

Date Recei6e3: 01/11/17 Mv:55

Lab Sample ID: 280-95191-M1

x atrid: Soli3

Percent Soli3s: 89.9

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Analysis	8015C		20	0.1 mL	5 mL	368173	04/05/17 19:23	KDK	TAL DEN
Total/NA	Prep	3546			31.4 g	10 mL	367936	04/04/17 10:23	JRA	TAL DEN
Total/NA	Analysis	8015C		2			368632	04/10/17 13:23	TEM	TAL DEN

Client Sample ID: RC4-SC-5M

Date Collecte3: 01/10/17 MM00

Date Recei6e3: 01/11/17 Mv:55

Lab Sample ID: 280-95191-M4

x atrid: Soli3

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-5M

Date Collecte3: 01/10/17 MM00

Date Recei6e3: 01/11/17 Mv:55

Lab Sample ID: 280-95191-M4

x atrid: Soli3

Percent Soli3s: 81.9

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Prep	5035			5.20 g	5 mL	367815	04/03/17 10:59	KDK	TAL DEN
Total/NA	Analysis	8015C		20	0.1 mL	5 mL	368173	04/05/17 19:48	KDK	TAL DEN
Total/NA	Prep	3546			32.1 g	10 mL	367936	04/04/17 10:23	JRA	TAL DEN
Total/NA	Analysis	8015C		2			368632	04/10/17 14:37	TEM	TAL DEN

Client Sample ID: RC4-SC-52

Date Collecte3: 01/10/17 MM05

Date Recei6e3: 01/11/17 Mv:55

Lab Sample ID: 280-95191-M5

x atrid: Soli3

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-52

Date Collecte3: 01/10/17 MM05

Date Recei6e3: 01/11/17 Mv:55

Lab Sample ID: 280-95191-M5

x atrid: Soli3

Percent Soli3s: 84.7

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	367815	04/03/17 10:59	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368173	04/05/17 20:13	KDK	TAL DEN
Total/NA	Prep	3546			32.6 g	1 mL	367936	04/04/17 10:23	JRA	TAL DEN
Total/NA	Analysis	8015C		1			368505	04/07/17 16:37	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-1

Client Sample ID: RC4-SC-51

Lab Sample ID: 280-95191-M

Date Collecte3: 01/10/M7 MM20

x atrid: Soli3

Date Recei6e3: 01/1MM7 Mv:55

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-51

Lab Sample ID: 280-95191-M

Date Collecte3: 01/10/M7 MM20

x atrid: Soli3

Date Recei6e3: 01/1MM7 Mv:55

Percent Soli3s: 79.5

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Prep	5035			5.17 g	5 mL	367815	04/03/17 10:59	KDK	TAL DEN
Total/NA	Analysis	8015C		5	0.1 mL	5 mL	368173	04/05/17 20:38	KDK	TAL DEN
Total/NA	Prep	3546			30.0 g	1 mL	367936	04/04/17 10:23	JRA	TAL DEN
Total/NA	Analysis	8015C		5			368632	04/10/17 15:01	TEM	TAL DEN

Client Sample ID: RC4-SC-54

Lab Sample ID: 280-95191-M

Date Collecte3: 01/10/M7 MM25

x atrid: Soli3

Date Recei6e3: 01/1MM7 Mv:55

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-54

Lab Sample ID: 280-95191-M

Date Collecte3: 01/10/M7 MM25

x atrid: Soli3

Date Recei6e3: 01/1MM7 Mv:55

Percent Soli3s: 88.8

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	367815	04/03/17 10:59	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368173	04/05/17 21:03	KDK	TAL DEN
Total/NA	Prep	3546			30.4 g	1 mL	367936	04/04/17 10:23	JRA	TAL DEN
Total/NA	Analysis	8015C		10			368632	04/10/17 15:26	TEM	TAL DEN

Client Sample ID: RC4-SC-55

Lab Sample ID: 280-95191-M

Date Collecte3: 01/10/M7 MM10

x atrid: Soli3

Date Recei6e3: 01/1MM7 Mv:55

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-55

Lab Sample ID: 280-95191-M

Date Collecte3: 01/10/M7 MM10

x atrid: Soli3

Date Recei6e3: 01/1MM7 Mv:55

Percent Soli3s: 84.v

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Prep	5035			5.15 g	5 mL	367815	04/03/17 10:59	KDK	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-1

Client Sample ID: RC4-SC-55

Date Collecte3: 01/10/M7 MM10

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-MB

x atrid: Soli3

Percent Soli3s: 84.v

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Analysis	8015C		5	0.1 mL	5 mL	368173	04/05/17 21:28	KDK	TAL DEN
Total/NA	Prep	3546			32.3 g	10 mL	367936	04/04/17 10:23	JRA	TAL DEN
Total/NA	Analysis	8015C		5			368632	04/10/17 15:50	TEM	TAL DEN

Client Sample ID: RC4-SC-5v

Date Collecte3: 01/10/M7 MM15

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-MB

x atrid: Soli3

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-5v

Date Collecte3: 01/10/M7 MM15

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-MB

x atrid: Soli3

Percent Soli3s: 79.2

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Prep	5035			5.23 g	5 mL	368014	04/04/17 13:28	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368351	04/06/17 14:06	KDK	TAL DEN
Total/NA	Prep	3546			30.9 g	1 mL	367936	04/04/17 10:23	JRA	TAL DEN
Total/NA	Analysis	8015C		1			368505	04/07/17 18:41	TEM	TAL DEN

Client Sample ID: RC4-SC-57

Date Collecte3: 01/10/M7 MM40

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-20

x atrid: Soli3

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-57

Date Collecte3: 01/10/M7 MM40

Date Recei6e3: 01/1MM7 Mv:55

Lab Sample ID: 280-95191-20

x atrid: Soli3

Percent Soli3s: 82.M

Prep Type	Batch Type	Batch x etho3	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare3 or Analyze3	Analyst	Lab
Total/NA	Prep	5035			4.86 g	5 mL	368014	04/04/17 13:28	KDK	TAL DEN
Total/NA	Analysis	8015C		10	0.1 mL	5 mL	368285	04/06/17 00:48	KDK	TAL DEN
Total/NA	Prep	3546			30.1 g	1 mL	367936	04/04/17 10:23	JRA	TAL DEN
Total/NA	Analysis	8015C		2			368632	04/10/17 16:15	TEM	TAL DEN

Laboratory References:

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

TestAmerica Denver

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94696-1

Laboratory: TestAmerica Denver

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
A2LA	DoD ELAP		2907.01	10-61-17
A2LA	ISO/IEC 17024		2907.01	10-61-17
Alabama	State Program	3	30760	09-60-12 5
Alaska STU	State Program	10	(ST-60	03-04-18
Arizona	State Program	9	Az0716	12-20-17
Arkansas DEZ	State Program	Q	88-0Q87	0Q01-17
California	State Program	9	2416	01-08-18 5
Connecticut	State Program	1	PH-0Q8Q	09-60-18
Florida	NELAP	3	E87Q07	0Q60-17
Georgia	State Program	3	N/A	01-08-18
Illinois	NELAP	4	200017	03-60-18
Iowa	State Program	7	670	12-01-18 5
Kansas	NELAP	7	E-101Q0	03-60-17 5
Louisiana	NELAP	Q	0209Q	0Q60-17
Maine	State Program	1	CO0002	06-06-19
Minnesota	NELAP	4	8-999-304	12-61-17 5
Nevada	State Program	9	CO002Q	07-61-17
New Hampshire	NELAP	1	204610	03-28-17
New Jersey	NELAP	2	CO003	0Q60-17
New York	NELAP	2	119Q8	03-01-18
North Carolina KWW/SWU	State Program	3	648	12-61-17
North Dakota	State Program	8	R-063	01-09-18
Oklahoma	State Program	Q	8Q13	08-61-17
Oregon	NELAP	10	3024	01-08-18
Pennsylvania	NELAP	6	Q8-00Q08	07-61-17
South Carolina	State Program	3	72002001	01-09-17 5
Texas	NELAP	Q	T103703186-1Q-12	09-60-17
(SDA	Federal		P660-1Q00697	12-14-19
(tah	NELAP	8	CO0002Q	07-61-17
Virginia	NELAP	6	3Q0262	0Q13-17
Washington	State Program	10	C486	08-02-17
West Virginia DEP	State Program	6	643	11-60-17
Wisconsin	State Program	4	999Q14360	08-61-17
Wyoming K STU	A2LA	8	2907.01	10-61-17

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

TestAmerica Denver

Arvada, CO 80002-4517
phone 303.736.0100 fax 303.431.7171

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Bethany Lucente Tel/Fax: (303) 250-4718		Site Contact: Bethany Lucente		Date: 3/31/2017	
Slantec				Lab Contact: Jamie Ide		Carrier: Courier	
2000 South Colorado Blvd., Suite 2-300		Analysis Turnaround Time		Perform MS / MSD (Y / N)		COC No: 1 of 5 Pages	
Denver, CO 80222		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS TAT if different from Below ASAP <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Filtered Sample (Y / N)		Sampler: Slauthamer/Jones	
(303) 758-4058 Phone		Sample Date		Sample Type (C=Comp, G=Grab)		For Lab Use Only:	
(303) 758-4828 FAX		Sample Time		# of Cont.		Walk-in Client:	
Project Name: CPL-Rangely C-4		Matrix				Lab Sampling:	
Site: CPL Rangely						Job / SDG No.:	
P O # 203720102						Sample Specific Notes:	

RC4-SC-38	3/30/2017	1005	G	Soil	2	N	X	X											
RC4-SC-39	3/30/2017	1010	G	Soil	2	N	X	X											
RC4-SC-40	3/30/2017	1015	G	Soil	2	N	X	X											
RC4-SC-41	3/30/2017	1020	G	Soil	2	N	X	X											
RC4-SC-42	3/30/2017	1025	G	Soil	2	N	X	X											
RC4-SC-43	3/30/2017	1030	G	Soil	2	N	X	X											
RC4-SC-44	3/30/2017	1035	G	Soil	2	N	X	X											
RC4-SC-45	3/30/2017	1040	G	Soil	2	N	X	X											
RC4-SC-46	3/30/2017	1045	G	Soil	2	N	X	X											
RC4-SC-47	3/30/2017	1050	G	Soil	2	N	X	X											
RC4-SC-48	3/30/2017	1055	G	Soil	2	N	X	X											
RC4-SC-49	3/30/2017	1100	G	Soil	2	N	X	X											
RC4-SC-50	3/30/2017	1105	G	Soil	2	N	X	X											
RC4-SC-51	3/30/2017	1110	G	Soil	2	N	X	X											
RC4-SC-52	3/30/2017	1115	G	Soil	2	N	X	X											
RC4-SC-53	3/30/2017	1120	G	Soil	2	N	X	X											
RC4-SC-54	3/30/2017	1125	G	Soil	2	N	X	X											
RC4-SC-55	3/30/2017	1130	G	Soil	2	N	X	X											
RC4-SC-56	3/30/2017	1135	G	Soil	2	N	X	X											
RC4-SC-57	3/30/2017	1140	G	Soil	2	N	X	X											
RC4-SC-58	3/30/2017	1145	G	Soil	2	N	X	X											



Reed 3-31-17 1655 TAD

Arvada, CO 80002-4517
phone 303.736.0100 fax 303.431.7171

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Bethany Lucente		Site Contact: Bethany Lucente		Date: 3/31/2017	
Tel/Fax: (303) 250-4718		Lab Contact: Jamie Ide		Carrier: Courier		COC No: 2 of 5 Pages	
2000 South Colorado Blvd., Suite 2-300		Analysis Turnaround Time		Sampler: Stauthamer/Jones		For Lab Use Only:	
Denver, CO 80222		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS TAT if different from Below <input checked="" type="checkbox"/> ASAP <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Walk-in Client:		Lab Sampling:	
(303) 758-4058 Phone				Job / SDG No.:			
(303) 758-4828 FAX							
Project Name: CPL-Rangely C-4							
Site: CPL Rangely							
P O # 203720102							

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	GRO-TEPH 8015C	DRO-TEPH 8015C	Sample Specific Notes:
RC4-SC-59	3/30/2017	1150	G	Soil	2	N	N	X	X	
RC4-SC-60	3/30/2017	1155	G	Soil	2	N	N	X	X	
RC4-SC-61	3/30/2017	1200	G	Soil	2	N	N	X	X	
RC4-SC-62	3/30/2017	1205	G	Soil	2	N	N	X	X	
RC4-SC-63	3/30/2017	1210	G	Soil	2	N	N	X	X	
RC4-SC-64	3/30/2017	1215	G	Soil	2	N	N	X	X	
RC4-SC-65	3/30/2017	1220	G	Soil	2	N	N	X	X	
RC4-SC-66	3/30/2017	1225	G	Soil	2	N	N	X	X	
RC4-SC-67	3/30/2017	1230	G	Soil	2	N	N	X	X	
RC4-SC-68	3/30/2017	1235	G	Soil	2	N	N	X	X	
RC4-SC-69	3/30/2017	1240	G	Soil	6	N	Y	X	X	
RC4-SC-70	3/30/2017	1245	G	Soil	2	N	N	X	X	
RC4-SC-DUP1	3/30/2017	1245	G	Soil	4	N	N	X	X	
RC4-SC-71	3/30/2017	1250	G	Soil	2	N	N	X	X	
RC4-SC-72	3/30/2017	1255	G	Soil	2	N	N	X	X	
RC4-SC-73	3/30/2017	1300	G	Soil	2	N	N	X	X	
RC4-SC-74	3/30/2017	1305	G	Soil	2	N	N	X	X	
RC4-SC-75	3/30/2017	1310	G	Soil	6	N	Y	X	X	
RC4-SC-76	3/30/2017	1315	G	Soil	2	N	N	X	X	
RC4-SC-DUP2	3/30/2017	1315	G	Soil	4	N	N	X	X	
RC4-SC-77	3/30/2017	1320	G	Soil	2	N	N	X	X	

Paul PATA 3-31-17 1635 TAD

Chain of Custody Record

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Bethany Lucente		Site Contact: Bethany Lucente		Date: 3/31/2017		COC No: 3 of 5 Pages	
Tel/Fax: (303) 250-4718		Analysis Turnaround Time		Lab Contact: Jamie Ide		Carrier: Courier		Sampler: Stauthamer/Jones	
2000 South Colorado Blvd., Suite 2-300		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS		Filtered Sample (Y / N)				For Lab Use Only:	
Denver, CO 80222		TAT if different from Below		Perform MS / MSD (Y / N)				Walk-in Client:	
(303) 758-4058 Phone		ASAP		GRO-TEPH 8015C				Lab Sampling:	
(303) 758-4828 FAX		2 weeks		DRO-TEPH 8015C				Job / SDG No.:	
Project Name: CPL-Rangely C-4		1 week							
Site: CPL Rangely		2 days							
P O # 203720102		1 day							
Sample Identification	Sample Date	Sample Time	Sample Type (C-Comp, G-Gab)	Matrix	# of Cont.	Sample Specific Notes:			
RC4-SC-78	3/30/2017	1325	G	Soil	2				
RC4-SC-79	3/30/2017	1330	G	Soil	2				
RC4-SC-80	3/30/2017	1335	G	Soil	2				
RC4-SC-DUP3	3/30/2017	1335	G	Soil	4				
RC4-SC-81	3/30/2017	1450	G	Soil	2				
RC4-SC-82	3/30/2017	1455	G	Soil	2				
RC4-SC-83	3/30/2017	1500	G	Soil	2				
RC4-SC-84	3/30/2017	1505	G	Soil	2				
RC4-SC-85	3/30/2017	1510	G	Soil	2				
RC4-SC-86	3/30/2017	1515	G	Soil	2				
RC4-SC-87	3/30/2017	1520	G	Soil	2				
RC4-SC-DUP4	3/30/2017	1520	G	Soil	4				
RC4-SC-88	3/30/2017	1525	G	Soil	2				
RC4-SC-89	3/30/2017	1530	G	Soil	2				
RC4-SC-90	3/30/2017	1535	G	Soil	2				
RC4-SC-91	3/30/2017	1540	G	Soil	2				
RC4-SC-92	3/30/2017	1545	G	Soil	6				
RC4-SC-93	3/30/2017	1550	G	Soil	2				
RC4-SC-94	3/30/2017	1555	G	Soil	2				
RC4-SC-95	3/30/2017	1600	G	Soil	2				
RC4-SC-96	3/30/2017	1605	G	Soil	2				

Revised PDA 3-31-17 1655 TAD

Chain of Custody Record

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Bethany Lucente		Site Contact: Bethany Lucente		Date: 3/31/2017		COC No: 14 of 5 Pages	
Tel/Fax: (303) 250-4718		Analysis Turnaround Time		Lab Contact: Jamie Ide		Carrier: Courier		Sampler: Stautthamer/Jones	
2000 South Colorado Blvd., Suite 2-300		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS		Perform MS / MSD (Y / N)				For Lab Use Only:	
Denver, CO 80222		TAT if different from Below		Filtered Sample (Y / N)				Walk-in Client:	
(303) 758-4058 Phone		ASAP		DRO-TEPH 8015C				Lab Sampling:	
(303) 758-4828 FAX		<input checked="" type="checkbox"/> 2 weeks		GRO-TEPH 8015C				Job / SDG No.:	
Project Name: CPL-Rangely C-4		<input type="checkbox"/> 1 week							
Site: CPL Rangely		<input type="checkbox"/> 2 days							
P O # 203720102		<input type="checkbox"/> 1 day							
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Sample Specific Notes:	
RC4-SC-DUP5	3/30/2017	1610	G	Soil	4	N	N		
RC4-SC-97	3/30/2017	1610	G	Soil	6	N	Y		
RC4-SC-98	3/30/2017	1615	G	Soil	2	N	N		
RC4-SC-99	3/30/2017	1620	G	Soil	2	N	N		
RC4-SC-100	3/30/2017	1625	G	Soil	2	N	N		
RC4-SC-101	3/30/2017	1630	G	Soil	2	N	N		
RC4-SC-102	3/30/2017	1635	G	Soil	2	N	N		
RC4-SC-103	3/30/2017	1640	G	Soil	2	N	N		
RC4-SC-104	3/30/2017	1645	G	Soil	2	N	N		
RC4-SC-105	3/30/2017	1650	G	Soil	2	N	N		
RC4-SC-DUP6	3/30/2017	1650	G	Soil	4	N	N		
RC4-SC-106	3/30/2017	1655	G	Soil	6	N	Y		
RC4-SC-107	3/30/2017	1700	G	Soil	2	N	N		
RC4-SC-108	3/30/2017	1705	G	Soil	2	N	N		
RC4-SC-109	3/30/2017	1710	G	Soil	2	N	N		
RC4-SC-110	3/30/2017	1715	G	Soil	2	N	N		
RC4-SC-111	3/30/2017	1720	G	Soil	2	N	N		
RC4-SC-112	3/30/2017	1725	G	Soil	2	N	N		
RC4-SC-113	3/30/2017	1730	G	Soil	2	N	N		
RC4-SC-114	3/30/2017	1735	G	Soil	2	N	N		
RC4-SC-115	3/30/2017	1740	G	Soil	2	N	N		

Reed PETA 3-31-17 1655 T40

Chain of Custody Record

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: ☐

Client Contact		Project Manager: Bethany Lucente Tel/Fax: (303) 250-4718		Site Contact: Bethany Lucente Lab Contact: Jamie Ide		Date: 3/31/2017 Carrier: Courier		COC No: 5 of 5 Pages	
2000 South Colorado Blvd., Suite 2-300 Denver, CO 80222		Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS TAT if different from Below ASAP <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Sample Type (C=Comp, G=Grab) Matrix		Sample Time		Sample Date	
Project Name: CPL-Rangely C-4 Site: CPL Rangely P O # 203720102		RC4-SC-DUP7		G Soil		1745		3/30/2017	
		RC4-SC-116		G Soil		1745		3/30/2017	
		RC4-SC-117		G Soil		1750		3/30/2017	
		RC4-SC-118		G Soil		1755		3/30/2017	
		RC4-SC-119		G Soil		1800		3/30/2017	
		RC4-SC-120		G Soil		1805		3/30/2017	
		RC4-SC-121		G Soil		1810		3/30/2017	
		RC4-SC-122		G Soil		1815		3/30/2017	

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	GRO-TEPH 8015C	DRO-TEPH 8015C	Sample Specific Notes:
RC4-SC-DUP7	3/30/2017	1745	G	Soil	4	N	N	X	X	
RC4-SC-116	3/30/2017	1745	G	Soil	6	N	Y	X	X	
RC4-SC-117	3/30/2017	1750	G	Soil	2	N	N	X	X	
RC4-SC-118	3/30/2017	1755	G	Soil	2	N	N	X	X	
RC4-SC-119	3/30/2017	1800	G	Soil	2	N	N	X	X	
RC4-SC-120	3/30/2017	1805	G	Soil	2	N	N	X	X	
RC4-SC-121	3/30/2017	1810	G	Soil	2	N	N	X	X	
RC4-SC-122	3/30/2017	1815	G	Soil	2	N	N	X	X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Special Instructions/QC Requirements & Comments: Metals Include Ba, B, Cd, Cr, Cu, Pb, Ni, Se, Ag, Zn

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Cooler Temp. (°C): Obs'd:	Corr'd:	Therm ID No.:
Relinquished by: Mike Stauthamer/10A	Company: Stauter	Received by: [Signature]	Company: TAP	Date/Time: 3-31-17 1655
Relinquished by:	Company:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.11, dated 1/24/2017

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-95393-1

Login Number: 95393

List Source: TestAmerica Denver

List Number: 1

Creator: Pottruff, Reed W

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.	False	SAMPLED YESTERDAY ICE PUT ON TODAY RECEIVED OUT OF TEMP
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	MISSING CONTAINERS FOR DUP SAMPLES
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver

4955 Yarrow Street

Arvada, CO 80002

Tel: (303)736-0100

TestAmerica Job ID: 280-95393-2

Client Project/Site: Stantec CVX - Rangely, CO

For:

Stantec Consulting Corp.

2000 South Colorado Blvd

Suite 2-300

Denver, Colorado 80222

Attn: Ms. Bethany Lucente



Authorized for release by:

4/17/2017 4:07:47 PM

Jamie Ide, Project Manager I

(303)736-0126

jamie.ide@testamericainc.com

LINKS

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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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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-2

Qualifiers

GC SmV

Qualifier	Qualifier Description
X	Surrogate is outside control limits
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

GC cep i SmV

Qualifier	Qualifier Description
X	Surrogate is outside control limits
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These are the only abbreviations used 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, 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)

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-2

Job ID: 280-95393-2

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Stantec Consulting Corp.
Project: Stantec CVX - Rangely, CO
Report Number: 280-95393-2

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 on 3/31/2017 4:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 8.9° C, 10.1° C, 13.5° C and 13.9° C. It was noted that ice was present in the coolers; however, may not have been present with the samples during the storage time between 3/30 and 3/31. The laboratory will proceed with the requested analyses unless otherwise notified. The client was notified 4/3/17.

Due to the large number of samples received, the samples have been logged in a job series of ~20 samples per SDG (280-95393-1, 280-95393-3, 280-95393-4, 280-95393-5). This SDG includes samples 21-40 listed on the chain of custody.

The chain of custody indicates 4 containers were received for each of the following samples: RC4-SC-DUP1 (280-95393-34). However, it was noted at the time of sample receipt only 2 containers were received for each sample. Sufficient volume is available for analysis; therefore, corrective action was not performed.

GASOLINE RANGE ORGANICS (GRO)

a,a,a-Trifluorotoluene failed the surrogate recovery criteria for RC4-SC-59 (280-95393-22), RC4-SC-61 (280-95393-24), RC4-SC-63 (280-95393-26), RC4-SC-64 (280-95393-27), RC4-SC-67 (280-95393-30), RC4-SC-69 (280-95393-32), RC4-SC-71 (280-95393-35), RC4-SC-74 (280-95393-38), RC4-SC-75MS (280-95393-39MS) and RC4-SC-75MSD (280-95393-39MSD). Evidence of matrix interference is present; therefore, corrective action was not performed.

GRO (C6-C10) failed the recovery criteria low for the MS/MSD of sample RC4-SC-75 (280-95393-39). The associated LCS was in control; therefore, corrective action was not performed.

Samples RC4-SC-58 (280-95393-21)[10X], RC4-SC-60 (280-95393-23)[5X], RC4-SC-61 (280-95393-24)[10X], RC4-SC-71 (280-95393-35)[10X], RC4-SC-74 (280-95393-38)[10X] and RC4-SC-76 (280-95393-40)[2X] required dilution prior to analysis due to the nature of the sample matrix. The reporting limits have been adjusted accordingly.

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

DIESEL RANGE ORGANICS

o-Terphenyl failed the surrogate recovery criteria for RC4-SC-59 (280-95393-22), RC4-SC-60 (280-95393-23), RC4-SC-61 (280-95393-24), RC4-SC-63 (280-95393-26), RC4-SC-66 (280-95393-29), RC4-SC-69 (280-95393-32), RC4-SC-73 (280-95393-37) and RC4-SC-74 (280-95393-38). Evidence of matrix interference is present; therefore, corrective action was not performed. 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. The surrogate recoveries are calculated from diluted samples and in some cases are diluted below reportable limits.

o-Terphenyl failed the surrogate recovery criteria high for MB 280-367989/1-A. The method blank had a surrogate recovery of 192%. It was most likely was spiked twice with the surrogate during the preparation; therefore, corrective action was not performed.

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-2

Job ID: 280-95393-2 (Continued)

Laboratory: TestAmerica Denver (Continued)

The following samples could not be thoroughly homogenized before sub-sampling was performed due to sample matrix: RC4-SC-71 (280-95393-35), RC4-SC-72 (280-95393-36), RC4-SC-73 (280-95393-37), RC4-SC-74 (280-95393-38), RC4-SC-75 (280-95393-39), RC4-SC-75 (280-95393-39[MSJ]), RC4-SC-75 (280-95393-39[MSD]) and RC4-SC-76 (280-95393-40), RC4-SC-58 (280-95393-21), RC4-SC-59 (280-95393-22), RC4-SC-60 (280-95393-23), RC4-SC-61 (280-95393-24), RC4-SC-62 (280-95393-25), RC4-SC-63 (280-95393-26), RC4-SC-64 (280-95393-27), RC4-SC-65 (280-95393-28) and RC4-SC-66 (280-95393-29). The samples were clay.

The initial aliquot and surrogate aliquot used for extraction of the following sample was split between two extraction vessels with the routine volume of solvent added to each vessel: RC4-SC-70 (280-95393-33). After the extraction, the extracts from both vessels were combined and concentrated.

DRO (C10-C28) failed the recovery criteria for the MS/MSD of sample RC4-SC-69 (280-95393-32). The associated LCS was in control; therefore, corrective action was not performed.

DRO (C10-C28) failed the recovery criteria for the MS/MSD of sample RC4-SC-75 (280-95393-39). DRO (C10-C28) exceeded the RPD limit. The associated LCS was in control; therefore, corrective action was not performed.

Samples RC4-SC-60 (280-95393-23)[5X], RC4-SC-61 (280-95393-24)[5X], RC4-SC-63 (280-95393-26)[5X] and RC4-SC-74 (280-95393-38)[5X] required dilution prior to analysis due to the nature of the sample matrix. The reporting limits have been adjusted accordingly.

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

PERCENT SOLIDS

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

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-2

Client Sample ID: RC4-SC-18

Lab Sample ID: 280-91595-2M

s nalyte	ReQult	f ualiUer	RL	ADL	F nit	Dil hac	D	AetdoP	Trep 3ype
GRO (C6-C10)	15		15	4.1	mg/Kg	10	✖	8015C	Total/NA
DRO (C10-C28)	110		4.7	0.80	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-19

Lab Sample ID: 280-91595-22

s nalyte	ReQult	f ualiUer	RL	ADL	F nit	Dil hac	D	AetdoP	Trep 3ype
GRO (C6-C10)	19		1.4	0.39	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	350		4.8	0.81	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-60

Lab Sample ID: 280-91595-25

s nalyte	ReQult	f ualiUer	RL	ADL	F nit	Dil hac	D	AetdoP	Trep 3ype
GRO (C6-C10)	98		7.3	2.0	mg/Kg	5	✖	8015C	Total/NA
DRO (C10-C28)	2800		23	3.9	mg/Kg	5	✖	8015C	Total/NA

Client Sample ID: RC4-SC-6M

Lab Sample ID: 280-91595-24

s nalyte	ReQult	f ualiUer	RL	ADL	F nit	Dil hac	D	AetdoP	Trep 3ype
GRO (C6-C10)	460		14	3.9	mg/Kg	10	✖	8015C	Total/NA
DRO (C10-C28)	4500		25	4.2	mg/Kg	5	✖	8015C	Total/NA

Client Sample ID: RC4-SC-62

Lab Sample ID: 280-91595-21

s nalyte	ReQult	f ualiUer	RL	ADL	F nit	Dil hac	D	AetdoP	Trep 3ype
GRO (C6-C10)	33		1.6	0.44	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	780		5.2	0.88	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-65

Lab Sample ID: 280-91595-26

s nalyte	ReQult	f ualiUer	RL	ADL	F nit	Dil hac	D	AetdoP	Trep 3ype
GRO (C6-C10)	14		1.5	0.40	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	3600		22	3.8	mg/Kg	5	✖	8015C	Total/NA

Client Sample ID: RC4-SC-64

Lab Sample ID: 280-91595-27

s nalyte	ReQult	f ualiUer	RL	ADL	F nit	Dil hac	D	AetdoP	Trep 3ype
GRO (C6-C10)	2.2		1.4	0.39	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	320		4.6	0.78	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-61

Lab Sample ID: 280-91595-28

s nalyte	ReQult	f ualiUer	RL	ADL	F nit	Dil hac	D	AetdoP	Trep 3ype
DRO (C10-C28)	20		4.8	0.81	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-66

Lab Sample ID: 280-91595-29

s nalyte	ReQult	f ualiUer	RL	ADL	F nit	Dil hac	D	AetdoP	Trep 3ype
GRO (C6-C10)	2.5		1.5	0.39	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	1100		4.8	0.81	mg/Kg	1	✖	8015C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-2

Client Sample ID: RC4-SC-67

Lab Sample ID: 280-91595-50

s nalyte	ReQult	f ualiUer	RL	ADL	Fnit	Dil hac	D	AetdoP	Trep 3ype
GRO (C6-C10)	27		1.4	0.39	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	390		4.3	0.74	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-68

Lab Sample ID: 280-91595-5M

s nalyte	ReQult	f ualiUer	RL	ADL	Fnit	Dil hac	D	AetdoP	Trep 3ype
DRO (C10-C28)	100		4.7	0.79	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-69

Lab Sample ID: 280-91595-52

s nalyte	ReQult	f ualiUer	RL	ADL	Fnit	Dil hac	D	AetdoP	Trep 3ype
GRO (C6-C10)	0.86	J	1.4	0.37	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	59	F1	4.7	0.79	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-70

Lab Sample ID: 280-91595-55

s nalyte	ReQult	f ualiUer	RL	ADL	Fnit	Dil hac	D	AetdoP	Trep 3ype
GRO (C6-C10)	0.45	J	1.5	0.40	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	12		4.6	0.78	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-DFTM

Lab Sample ID: 280-91595-54

s nalyte	ReQult	f ualiUer	RL	ADL	Fnit	Dil hac	D	AetdoP	Trep 3ype
DRO (C10-C28)	6.9		4.8	0.81	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-7M

Lab Sample ID: 280-91595-51

s nalyte	ReQult	f ualiUer	RL	ADL	Fnit	Dil hac	D	AetdoP	Trep 3ype
GRO (C6-C10)	280		15	4.1	mg/Kg	10	✖	8015C	Total/NA
DRO (C10-C28)	1100		4.8	0.81	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-72

Lab Sample ID: 280-91595-56

s nalyte	ReQult	f ualiUer	RL	ADL	Fnit	Dil hac	D	AetdoP	Trep 3ype
GRO (C6-C10)	14		1.5	0.40	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	140		5.0	0.85	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-75

Lab Sample ID: 280-91595-57

s nalyte	ReQult	f ualiUer	RL	ADL	Fnit	Dil hac	D	AetdoP	Trep 3ype
GRO (C6-C10)	36		1.5	0.40	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	1000		4.7	0.80	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-74

Lab Sample ID: 280-91595-58

s nalyte	ReQult	f ualiUer	RL	ADL	Fnit	Dil hac	D	AetdoP	Trep 3ype
GRO (C6-C10)	270		15	4.0	mg/Kg	10	✖	8015C	Total/NA
DRO (C10-C28)	3200		24	4.0	mg/Kg	5	✖	8015C	Total/NA

Client Sample ID: RC4-SC-71

Lab Sample ID: 280-91595-59

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-2

Client Sample ID: RC4-SC-71 (ContinueP)

Lab Sample ID: 280-91595-59

s nalyte	ReQult f ualiUer	RL	ADL	F nit	Dil hac	D	AetdoP	Trep 3ype
GRO (C6-C10)	36	1.6	0.43	mg/Kg	1	✱	8015C	Total/NA
DRO (C10-C28)	330 F2	4.8	0.82	mg/Kg	1	✱	8015C	Total/NA

Client Sample ID: RC4-SC-76

Lab Sample ID: 280-91595-40

s nalyte	ReQult f ualiUer	RL	ADL	F nit	Dil hac	D	AetdoP	Trep 3ype
GRO (C6-C10)	70	3.0	0.81	mg/Kg	2	✱	8015C	Total/NA
DRO (C10-C28)	720	4.9	0.83	mg/Kg	1	✱	8015C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Method Summary

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. ro Ectj nite: n tal tec 6 / V - Xal ue 6 ,

TestAmerica Job ID: 280-94797-2

Method	Method Description	Protocol	Laboratory
80546	Nol haCuel ated , rual ics Ssil u G6jFID -Modified (Gasol e Xal ue , rual ics)	nO 8W	TAL DEN
80546	Nol haCuel ated , rual ics Ssil u G6jFID -Modified (Diesel Xal ue , rual ics)	nO 8W	TAL DEN
MoistSre	. ercel t MoistSre	E. A	TAL DEN

Protocol References:

E. A = " n El virol mel taC ro tectiol Auel cR

nO 8W = Test Methods For EvaSatil u noC O astey. hRicaC hemicaMethods, Third Editio l yNovember 5981 Al d Its " gdatesp

Laboratory References:

TAL DEN = TestAmerica Del veryW44 Yarrow ntreetyArvaday6 , 80002yTEL (707)371-0500

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-95393-21	RC4-SC-58	Solid	03/30/17 11:45	03/31/17 16:55
280-95393-22	RC4-SC-59	Solid	03/30/17 11:50	03/31/17 16:55
280-95393-23	RC4-SC-60	Solid	03/30/17 11:55	03/31/17 16:55
280-95393-24	RC4-SC-61	Solid	03/30/17 12:00	03/31/17 16:55
280-95393-25	RC4-SC-62	Solid	03/30/17 12:05	03/31/17 16:55
280-95393-26	RC4-SC-63	Solid	03/30/17 12:10	03/31/17 16:55
280-95393-27	RC4-SC-64	Solid	03/30/17 12:15	03/31/17 16:55
280-95393-28	RC4-SC-65	Solid	03/30/17 12:20	03/31/17 16:55
280-95393-29	RC4-SC-66	Solid	03/30/17 12:25	03/31/17 16:55
280-95393-30	RC4-SC-67	Solid	03/30/17 12:30	03/31/17 16:55
280-95393-31	RC4-SC-68	Solid	03/30/17 12:35	03/31/17 16:55
280-95393-32	RC4-SC-69	Solid	03/30/17 12:40	03/31/17 16:55
280-95393-33	RC4-SC-70	Solid	03/30/17 12:45	03/31/17 16:55
280-95393-34	RC4-SC-DUP1	Solid	03/30/17 12:45	03/31/17 16:55
280-95393-35	RC4-SC-71	Solid	03/30/17 12:50	03/31/17 16:55
280-95393-36	RC4-SC-72	Solid	03/30/17 12:55	03/31/17 16:55
280-95393-37	RC4-SC-73	Solid	03/30/17 13:00	03/31/17 16:55
280-95393-38	RC4-SC-74	Solid	03/30/17 13:05	03/31/17 16:55
280-95393-39	RC4-SC-75	Solid	03/30/17 13:10	03/31/17 16:55
280-95393-40	RC4-SC-76	Solid	03/30/17 13:15	03/31/17 16:55

Client Sample Results

4 Client Sample ID: RCx-SC-58
Date Collected: 04/40/17 11:55
Date Received: 04/41/17 1v:55

TestAmerica Job ID: 280-95191-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RCx-SC-58
Date Collected: 04/40/17 11:55
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-21
Matri3: Solid
6 Percent Solids: 82%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
GRO (Cv-C10)	15		05	3p0	mujKu	☆	03j03j07 01:28	03j06j07 00:01	00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	14		99 - D X				723723D9DX/ 1	7237: 3D97D/DX	D7

Client Sample ID: RCx-SC-59
Date Collected: 04/40/17 11:50
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-22
Matri3: Solid
6 Percent Solids: 81%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
GRO (Cv-C10)	19		Q8	0p19	mujKu	☆	03j03j07 01:28	03j06j07 08:56	0
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	9D	5	99 - D X				723723D9DX/ 1	7237: 3D9D2/4:	D

Client Sample ID: RCx-SC-v0
Date Collected: 04/40/17 11:55
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-24
Matri3: Solid
6 Percent Solids: 84%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
GRO (Cv-C10)	98		7p1	2p0	mujKu	☆	03j03j07 01:28	03j06j07 05:20	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	12		99 - D X				723723D9DX/ 1	7237: 3D9D4/ D	4

Client Sample ID: RCx-SC-v1
Date Collected: 04/40/17 12:00
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-2x
Matri3: Solid
6 Percent Solids: 80%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
GRO (Cv-C10)	xv0		08	1p0	mujKu	☆	03j03j07 01:28	03j06j07 02:27	00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	: D	805	99 - D X				723723D9DX/ 1	7237: 3D97 / 9	D7

Client Sample ID: RCx-SC-v2
Date Collected: 04/40/17 12:05
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-25
Matri3: Solid
6 Percent Solids: 7v8

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
GRO (Cv-C10)	44		Q6	0p83	mujKu	☆	03j03j07 01:28	03j06j07 05:36	0
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	91		99 - D X				723723D9DX/ 1	7237: 3D9D4/2:	D

Client Sample ID: RCx-SC-v4
Date Collected: 04/40/17 12:10
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-2v
Matri3: Solid
6 Percent Solids: 84%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
GRO (Cv-C10)	1x		Q5	0p80	mujKu	☆	03j03j07 01:28	03j06j07 06:00	0
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	94	5	99 - D X				723723D9DX/ 1	7237: 3D9D: /DD	D

TestAmerica Del ver

Client Sample Results

4 Client Sample ID: RCx-SC-vx
Date Collected: 04/40/17 12:15
Date Received: 04/41/17 1v:55
Analyte

TestAmerica Job ID: 280-95191-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RCx-SC-vx
Date Collected: 04/40/17 12:15
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-27
Matrix: Solid
6 Percent Solids: 82%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
GRO (Cv-C10)	212		Q8	0.19	mujKu	☆	03j03j07 01:28	03j06j07 06:16	O
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a.a.a-Trifluorotoluene	: 1	5	99 - D X				7232390X/1	7232390X/1	D

Client Sample ID: RCx-SC-v5
Date Collected: 04/40/17 12:20
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-28
Matrix: Solid
6 Percent Solids: 79%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
GX, (46-400)	ND		Q5	0.80	mujKu	☆	03j03j07 01:28	03j06j07 07:02	O
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a.a.a-Trifluorotoluene	16		99 - D X				7232390X/1	7232390X/7	D

Client Sample ID: RCx-SC-vv
Date Collected: 04/40/17 12:25
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-29
Matrix: Solid
6 Percent Solids: 81%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
GRO (Cv-C10)	215		Q5	0.19	mujKu	☆	03j03j07 01:28	03j06j07 07:52	O
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a.a.a-Trifluorotoluene	14		99 - D X				7232390X/1	7232390X/4	D

Client Sample ID: RCx-SC-v7
Date Collected: 04/40/17 12:40
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-40
Matrix: Solid
6 Percent Solids: 8x12

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
GRO (Cv-C10)	27		Q8	0.19	mujKu	☆	03j03j07 01:28	03j06j07 08:07	O
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	90	5	99 - D X				7232390X/1	7232390X/1	D

Client Sample ID: RCx-SC-v8
Date Collected: 04/40/17 12:45
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-41
Matrix: Solid
6 Percent Solids: 84%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
GX, (46-400)	ND		Q8	0.17	mujKu	☆	03j03j07 01:28	03j06j07 08:32	O
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	91		99 - D X				7232390X/1	7232390X/2	D

Client Sample ID: RCx-SC-v9
Date Collected: 04/40/17 12:40
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-42
Matrix: Solid
6 Percent Solids: 85%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
GRO (Cv-C10)	013v	J	Q8	0.17	mujKu	☆	03j01j07 00:59	03j05j07 20:51	O
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	92	5	99 - D X				7232390X/7/46	7232390X/4X	D

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Client Sample Results

4 Client Sample ID: RCx-SC-70
Date Collected: 04/40/17 12:55
Date Received: 04/41/17 1v:55

TestAmerica Job ID: 280-95191-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RCx-SC-70
Date Collected: 04/40/17 12:55
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-44
Matrix: Solid
6 Percent Solids: 81%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
GRO (Cv-C10)	0.5	J	Q5	0.80	mujKu	☆	03j03j07 01:28	03j06j07 09:07	O
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	10		99 - D X				7232390X/ 1	72323906/79	D

Client Sample ID: RCx-SC-DU61
Date Collected: 04/40/17 12:55
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-4x
Matrix: Solid
6 Percent Solids: 82%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
GX, (46-400)	ND		Q5	0.82	mujKu	☼	03j03j07 01:28	03j06j07 09:12	O
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	14		99 - D X				7232390X/ 1	72323906/X	D

Client Sample ID: RCx-SC-71
Date Collected: 04/40/17 12:50
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-45
Matrix: Solid
6 Percent Solids: 82%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
GRO (Cv-C10)	280		Q5	3.00	mujKu	☆	03j03j07 01:28	03j06j07 07:00	Q0
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	XD	8.05	99 - D X				7232390X/ 1	72323909/77	D7

Client Sample ID: RCx-SC-72
Date Collected: 04/40/17 12:55
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-4v
Matrix: Solid
6 Percent Solids: 79%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
GRO (Cv-C10)	1x		Q5	0.80	mujKu	☆	03j03j07 01:28	03j06j07 20:22	O
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	96		99 - D X				7232390X/ 1	72323907/	D

Client Sample ID: RCx-SC-74
Date Collected: 04/40/17 14:00
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-47
Matrix: Solid
6 Percent Solids: 84%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
GRO (Cv-C10)	4v		Q5	0.80	mujKu	☆	03j03j07 01:28	03j06j07 20:37	O
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	6D		99 - D X				7232390X/ 1	72323907/29	D

Client Sample ID: RCx-SC-7x
Date Collected: 04/40/17 14:05
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-48
Matrix: Solid
6 Percent Solids: 84%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
GRO (Cv-C10)	270		Q5	3.00	mujKu	☆	03j03j07 01:28	03j06j07 08:05	Q0
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	XX	8.05	99 - D X				7232390X/ 1	72323907/1/D4	D7

TestAmerica Del ver

Client Sample Results

4 Client Sample ID: RCx-SC-75
Date Collected: 04/40/17 14:10
Date Received: 04/41/17 1v:55

TestAmerica Job ID: 280-95191-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RCx-SC-75
Date Collected: 04/40/17 14:10
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-49
Matri3: Solid
6 Percent Solids: 79.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
GRO (Cv-C10)	4v		Q6	0.81	mujKu	☆	03j03j07 01:28	03j06j07 20:02	0
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a.a.a-Trifluorotoluene	D7		99 - D X				7232390X/1	7232390D/D	D

Client Sample ID: RCx-SC-7v
Date Collected: 04/40/17 14:15
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-x0
Matri3: Solid
6 Percent Solids: 81.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
GRO (Cv-C10)	70		1.0	0.80	mujKu	☆	03j03j07 01:56	03j06j07 21:30	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a.a.a-Trifluorotoluene	D74		99 - D X				7232390X/4	7232390X/27	

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RCx-SC-58
Date Collected: 04/40/17 11:x5
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-21
Matri3: Solid
6 Percent Solids: 82.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
DRO (C10-C28)	110		3p7	0p80	mujKu	☆	03j03j07 00:21	03j07j07 08:10	0
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	12		26 - DD4				72323907/ X	72393906/XD	D

Client Sample ID: RCx-SC-59
Date Collected: 04/40/17 11:50
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-22
Matri3: Solid
6 Percent Solids: 81.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
DRO (C10-C28)	450		3.8	0.80	mujKu	☆	03j03j07 00:21	03j07j07 09:56	0
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	DX2	5	26 - DD4				72323907/ X	72393906/4	D

Client Sample ID: RCx-SC-v0
Date Collected: 04/40/17 11:55
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-24
Matri3: Solid
6 Percent Solids: 84.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
DRO (C10-C28)	2800		21	1.0	mujKu	☆	03j03j07 00:21	03j07j07 06:19	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	21	5.8	26 - DD4				72323907/ X	72373907/X6	4

Client Sample ID: RCx-SC-v1
Date Collected: 04/40/17 12:00
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-2x
Matri3: Solid
6 Percent Solids: 80.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
DRO (C10-C28)	x500		25	3.2	mujKu	☆	03j03j07 00:21	03j07j07 07:03	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	1	5.8	26 - DD4				72323907/ X	72373909/72	4

TestAmerica Del ver

Client Sample Results

4 Client Sample ID: RCx-SC-v2
Date Collected: 04/40/17 12:05
Date Received: 04/41/17 1v:55

TestAmerica Job ID: 280-95191-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RCx-SC-v2
Date Collected: 04/40/17 12:05
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-25
Matrix: Solid
6 Percent Solids: 7v8

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
DRO (C10-C28)	780		5p2	0p88	mujKu	☆	03j03j07 00:21	03j07j07 22:00	O
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	4X		26 - DD4				723723D907/ X	723793D90 /77	D

Client Sample ID: RCx-SC-v4
Date Collected: 04/40/17 12:10
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-2v
Matrix: Solid
6 Percent Solids: 84P2

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
DRO (C10-C28)	4v00		22	1p8	mujKu	☆	03j03j07 00:21	03j00j07 07:28	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	XD	508	26 - DD4				723723D907/ X	72373D909/ 1	4

Client Sample ID: RCx-SC-vx
Date Collected: 04/40/17 12:15
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-27
Matrix: Solid
6 Percent Solids: 82P9

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
DRO (C10-C28)	420		3p6	0p78	mujKu	☆	03j03j07 00:21	03j07j07 22:39	O
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	1X		26 - DD4				723723D907/ X	723793D90 /26	D

Client Sample ID: RCx-SC-v5
Date Collected: 04/40/17 12:20
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-28
Matrix: Solid
6 Percent Solids: 79P7

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
DRO (C10-C28)	20		3p8	0p80	mujKu	☆	03j03j07 00:21	03j07j07 21:18	O
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	D72		26 - DD4				723723D907/ X	723793D90 XX1	D

Client Sample ID: RCx-SC-vv
Date Collected: 04/40/17 12:25
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-29
Matrix: Solid
6 Percent Solids: 81P7

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
DRO (C10-C28)	1100		3p8	0p80	mujKu	☆	03j03j07 00:21	03j08j07 00:01	O
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	2X	5	26 - DD4				723723D907/ X	723713D907/7X	D

Client Sample ID: RCx-SC-v7
Date Collected: 04/40/17 12:40
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-40
Matrix: Solid
6 Percent Solids: 8xP2

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
DRO (C10-C28)	490		3p1	0p73	mujKu	☆	03j03j07 00:21	03j08j07 00:27	O
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	9:		26 - DD4				723723D907/ X	723713D907/ 9	D

TestAmerica Del ver

Client Sample Results

4 Client Sample ID: RCx-SC-v8
Date Collected: 04/40/17 12:45
Date Received: 04/41/17 1v:55
Analyte

TestAmerica Job ID: 280-95191-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RCx-SC-v8
Date Collected: 04/40/17 12:45
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-41
Matrix: Solid
6 Percent Solids: 84%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
DRO (C10-C28)	100		3p7	0p79	mujKu	✱	03j03j07 00:21	03j08j07 00:52	O
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	66		26 - DD4				723723D9D7/ X	723713D9D7/4	D

Client Sample ID: RCx-SC-v9
Date Collected: 04/40/17 12:x0
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-42
Matrix: Solid
6 Percent Solids: 85%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
DRO (C10-C28)	59	F1	3p7	0p79	mujKu	☼	03j03j07 02:35	03j05j07 07:28	O
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	DD9	5	26 - DD4				723723D9D /24	723743D9D9/ 1	D

Client Sample ID: RCx-SC-70
Date Collected: 04/40/17 12:x5
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-44
Matrix: Solid
6 Percent Solids: 81%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
DRO (C10-C28)	12		3p6	0p78	mujKu	✱	03j03j07 00:21	03j08j07 00:07	O
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	D7:		26 - DD4				723723D9D7/ X	723713D9D7/D9	D

Client Sample ID: RCx-SC-DU61
Date Collected: 04/40/17 12:x5
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-4x
Matrix: Solid
6 Percent Solids: 82%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
DRO (C10-C28)	v19		3p8	0p80	mujKu	✱	03j03j07 02:35	03j05j07 08:32	O
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	D7D		26 - DD4				723723D9D /24	723743D9D1/2	D

Client Sample ID: RCx-SC-71
Date Collected: 04/40/17 12:50
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-45
Matrix: Solid
6 Percent Solids: 82%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
DRO (C10-C28)	1100		3p8	0p80	mujKu	☼	03j03j07 02:35	03j05j07 08:07	O
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	41		26 - DD4				723723D9D /24	723743D9D6/79	D

Client Sample ID: RCx-SC-72
Date Collected: 04/40/17 12:55
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-4v
Matrix: Solid
6 Percent Solids: 79%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
DRO (C10-C28)	1x0		5p0	0p85	mujKu	☼	03j03j07 02:35	03j05j07 09:10	O
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	67		26 - DD4				723723D9D /24	723743D9D6/XD	D

TestAmerica Del ver

Client Sample Results

4 Client Sample ID: RCx-SC-74
Date Collected: 04/40/17 14:00
Date Received: 04/41/17 1v:55
Analyte: DRO (C10-C28)

TestAmerica Job ID: 280-95191-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RCx-SC-74
Date Collected: 04/40/17 14:00
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-47
Matri3: Solid
6percent Solids: 84%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6prepared	Analyzed	Dil Fac
DRO (C10-C28)	1000		3p7	0p80	mujKu	☆	03j03j07 02:35	03j05j07 09:56	0
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	24	5	26 - DD4				723723D9D /24	723743D9D6/4:	D

Client Sample ID: RCx-SC-7x
Date Collected: 04/40/17 14:05
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-48
Matri3: Solid
6percent Solids: 84%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6prepared	Analyzed	Dil Fac
DRO (C10-C28)	4200		23	3p0	mujKu	☆	03j03j07 02:35	03j06j07 20:23	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	2:	508	26 - DD4				723723D9D /24	7237: 3D90 7/ 2	4

Client Sample ID: RCx-SC-75
Date Collected: 04/40/17 14:10
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-49
Matri3: Solid
6percent Solids: 79%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6prepared	Analyzed	Dil Fac
DRO (C10-C28)	440	F2	3p8	0p82	mujKu	☆	03j03j07 02:35	03j05j07 20:59	0
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	:		26 - DD4				723723D9D /24	723743D90 D/46	D

Client Sample ID: RCx-SC-7v
Date Collected: 04/40/17 14:15
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-x0
Matri3: Solid
6percent Solids: 81%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6prepared	Analyzed	Dil Fac
DRO (C10-C28)	720		3p9	0p81	mujKu	☆	03j03j07 02:35	03j05j07 21:02	0
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	97		26 - DD4				723723D9D /24	723743D90 X/D	D

General Chemistry

Client Sample ID: RCx-SC-58
Date Collected: 04/40/17 11:x5
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-21
Matri3: Solid
6percent Solids: 82%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6prepared	Analyzed	Dil Fac
6percent Moisture	17%		0p0	0p0	%	-		03j0Q07 06:36	0
6percent Solids	82%		0p0	0p0	%	-		03j0Q07 06:36	0

Client Sample ID: RCx-SC-59
Date Collected: 04/40/17 11:50
Date Received: 04/41/17 1v:55

Lab Sample ID: 280-95494-22
Matri3: Solid
6percent Solids: 81%

Analyte	Result	Qualifier	RL	MDL	Unit	D	6prepared	Analyzed	Dil Fac
6percent Moisture	18%		0p0	0p0	%	-		03j0Q07 06:36	0
6percent Solids	81%		0p0	0p0	%	-		03j0Q07 06:36	0

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Client Sample Results

Client Sample ID: RCx-SC-v0
Date Collected: 04/40/17 11:55
Date Recei. ed: 04/41/17 1v:55

TestAmerica Job ID: 280-95191-2

General Chemistry

Client Sample ID: RCx-SC-v0
Date Collected: 04/40/17 11:55
Date Recei. ed: 04/41/17 1v:55

Lab Sample ID: 280-95494-24
Matri3: Solid
6ercent Solids: 84P

Analyte	Result	Qualifier	RL	MDL	Unit	D	6repared	Analyzed	Dil Fac
6ercent Moisture	1vP		0p0	0p0	%			03j0Q07 06:36	0
6ercent Solids	84P		0p0	0p0	%			03j0Q07 06:36	0

Client Sample ID: RCx-SC-v1
Date Collected: 04/40/17 12:00
Date Recei. ed: 04/41/17 1v:55

Lab Sample ID: 280-95494-2x
Matri3: Solid
6ercent Solids: 80P

Analyte	Result	Qualifier	RL	MDL	Unit	D	6repared	Analyzed	Dil Fac
6ercent Moisture	19P		0p0	0p0	%			03j0Q07 06:36	0
6ercent Solids	80P		0p0	0p0	%			03j0Q07 06:36	0

Client Sample ID: RCx-SC-v2
Date Collected: 04/40/17 12:05
Date Recei. ed: 04/41/17 1v:55

Lab Sample ID: 280-95494-25
Matri3: Solid
6ercent Solids: 7vP

Analyte	Result	Qualifier	RL	MDL	Unit	D	6repared	Analyzed	Dil Fac
6ercent Moisture	24P		0p0	0p0	%			03j0Q07 06:36	0
6ercent Solids	7vP		0p0	0p0	%			03j0Q07 06:36	0

Client Sample ID: RCx-SC-v4
Date Collected: 04/40/17 12:10
Date Recei. ed: 04/41/17 1v:55

Lab Sample ID: 280-95494-2v
Matri3: Solid
6ercent Solids: 84P

Analyte	Result	Qualifier	RL	MDL	Unit	D	6repared	Analyzed	Dil Fac
6ercent Moisture	1vP		0p0	0p0	%			03j0Q07 06:36	0
6ercent Solids	84P		0p0	0p0	%			03j0Q07 06:36	0

Client Sample ID: RCx-SC-vx
Date Collected: 04/40/17 12:15
Date Recei. ed: 04/41/17 1v:55

Lab Sample ID: 280-95494-27
Matri3: Solid
6ercent Solids: 82P

Analyte	Result	Qualifier	RL	MDL	Unit	D	6repared	Analyzed	Dil Fac
6ercent Moisture	17P		0p0	0p0	%			03j0Q07 06:36	0
6ercent Solids	82P		0p0	0p0	%			03j0Q07 06:36	0

Client Sample ID: RCx-SC-v5
Date Collected: 04/40/17 12:20
Date Recei. ed: 04/41/17 1v:55

Lab Sample ID: 280-95494-28
Matri3: Solid
6ercent Solids: 79P

Analyte	Result	Qualifier	RL	MDL	Unit	D	6repared	Analyzed	Dil Fac
6ercent Moisture	20P		0p0	0p0	%			03j0Q07 06:36	0
6ercent Solids	79P		0p0	0p0	%			03j0Q07 06:36	0

Client Sample ID: RCx-SC-vv
Date Collected: 04/40/17 12:25
Date Recei. ed: 04/41/17 1v:55

Lab Sample ID: 280-95494-29
Matri3: Solid
6ercent Solids: 81P

Analyte	Result	Qualifier	RL	MDL	Unit	D	6repared	Analyzed	Dil Fac
6ercent Moisture	18P		0p0	0p0	%			03j0Q07 06:36	0
6ercent Solids	81P		0p0	0p0	%			03j0Q07 06:36	0

Client Sample ID: RCx-SC-v7
Date Collected: 04/40/17 12:40
Date Recei. ed: 04/41/17 1v:55

Lab Sample ID: 280-95494-40
Matri3: Solid
6ercent Solids: 8xP

Analyte	Result	Qualifier	RL	MDL	Unit	D	6repared	Analyzed	Dil Fac
6ercent Moisture	15P		0p0	0p0	%			03j0Q07 06:36	0
6ercent Solids	8xP		0p0	0p0	%			03j0Q07 06:36	0

TestAmerica Del ver

Client Sample Results

4 Client Sample ID: RCx-SC-v8
Date Collected: 04/40/17 12:45
Date Recei. ed: 04/41/17 1v:55
Analyte Result Qualifier RL MDL Unit D 6 prepared Analyzed Dil Fac

TestAmerica Job ID: 280-95191-2

General Chemistry

Client Sample ID: RCx-SC-v8
Date Collected: 04/40/17 12:45
Date Recei. ed: 04/41/17 1v:55

Lab Sample ID: 280-95494-41
Matri3: Solid
6ercent Solids: 84P2

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
6ercent Moisture	1vP8		0p0	0p0	%			03j0Q07 06:36	0
6ercent Solids	84P2		0p0	0p0	%			03j0Q07 06:36	0

Client Sample ID: RCx-SC-v9
Date Collected: 04/40/17 12:x0
Date Recei. ed: 04/41/17 1v:55

Lab Sample ID: 280-95494-42
Matri3: Solid
6ercent Solids: 85P0

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
6ercent Moisture	15P0		0p0	0p0	%			03j0Q07 06:36	0
6ercent Solids	85P0		0p0	0p0	%			03j0Q07 06:36	0

Client Sample ID: RCx-SC-70
Date Collected: 04/40/17 12:x5
Date Recei. ed: 04/41/17 1v:55

Lab Sample ID: 280-95494-44
Matri3: Solid
6ercent Solids: 81Pv

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
6ercent Moisture	18Pv		0p0	0p0	%			03j0Q07 06:36	0
6ercent Solids	81Pv		0p0	0p0	%			03j0Q07 06:36	0

Client Sample ID: RCx-SC-DU61
Date Collected: 04/40/17 12:x5
Date Recei. ed: 04/41/17 1v:55

Lab Sample ID: 280-95494-4x
Matri3: Solid
6ercent Solids: 82P0

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
6ercent Moisture	18P0		0p0	0p0	%			03j0Q07 06:36	0
6ercent Solids	82P0		0p0	0p0	%			03j0Q07 06:36	0

Client Sample ID: RCx-SC-71
Date Collected: 04/40/17 12:50
Date Recei. ed: 04/41/17 1v:55

Lab Sample ID: 280-95494-45
Matri3: Solid
6ercent Solids: 82Pv

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
6ercent Moisture	17Pv		0p0	0p0	%			03j0Q07 06:36	0
6ercent Solids	82Pv		0p0	0p0	%			03j0Q07 06:36	0

Client Sample ID: RCx-SC-72
Date Collected: 04/40/17 12:55
Date Recei. ed: 04/41/17 1v:55

Lab Sample ID: 280-95494-4v
Matri3: Solid
6ercent Solids: 79P1

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
6ercent Moisture	20P1		0p0	0p0	%			03j0Q07 06:36	0
6ercent Solids	79P1		0p0	0p0	%			03j0Q07 06:36	0

Client Sample ID: RCx-SC-74
Date Collected: 04/40/17 14:00
Date Recei. ed: 04/41/17 1v:55

Lab Sample ID: 280-95494-47
Matri3: Solid
6ercent Solids: 84P2

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
6ercent Moisture	1vP8		0p0	0p0	%			03j0Q07 06:36	0
6ercent Solids	84P2		0p0	0p0	%			03j0Q07 06:36	0

Client Sample ID: RCx-SC-7x
Date Collected: 04/40/17 14:05
Date Recei. ed: 04/41/17 1v:55

Lab Sample ID: 280-95494-48
Matri3: Solid
6ercent Solids: 84P2

Analyte	Result	Qualifier	RL	MDL	Unit	D	6 prepared	Analyzed	Dil Fac
6ercent Moisture	1vP8		0p0	0p0	%			03j0Q07 06:36	0
6ercent Solids	84P2		0p0	0p0	%			03j0Q07 06:36	0

TestAmerica Del ver

Client Sample Results

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TestAmerica Job ID: 280-95191-2

General Chemistry

Client Sample ID: RCx-SC-75
Date Collected: 04/40/17 14:10
Date Recei. ed: 04/41/17 1v:55

Lab Sample ID: 280-95494-49
Matri3: Solid
6ercent Solids: 79P

Analyte	Result	Qualifier	RL	MDL	Unit	D	6repared	Analyzed	Dil Fac
6ercent Moisture	20P		0p0	0p0	%			03j0Q07 06:36	0
6ercent Solids	79P		0p0	0p0	%			03j0Q07 06:36	0

Client Sample ID: RCx-SC-7v
Date Collected: 04/40/17 14:15
Date Recei. ed: 04/41/17 1v:55

Lab Sample ID: 280-95494-x0
Matri3: Solid
6ercent Solids: 81P

Analyte	Result	Qualifier	RL	MDL	Unit	D	6repared	Analyzed	Dil Fac
6ercent Moisture	18P		0p0	0p0	%			03j0Q07 06:36	0
6ercent Solids	81P		0p0	0p0	%			03j0Q07 06:36	0

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)				
Lab Sample ID	Client Sample ID	TFT1 (77-123)				
280-95393-21	RC4-SC-58	85				
280-95393-22	RC4-SC-59	71 X				
280-95393-23	RC4-SC-60	84				
280-95393-24	RC4-SC-61	261 D X				
280-95393-25	RC4-SC-62	78				
280-95393-26	RC4-SC-63	75 X				
280-95393-27	RC4-SC-64	68 X				
280-95393-28	RC4-SC-65	89				
280-95393-29	RC4-SC-66	85				
280-95393-30	RC4-SC-67	71 X				
280-95393-31	RC4-SC-68	78				
280-95393-32	RC4-SC-69	74 X				
280-95393-32 MS	RC4-SC-69	77				
280-95393-32 MSD	RC4-SC-69	78				
280-95393-33	RC4-SC-70	81				
280-95393-34	RC4-SC-DUP1	85				
280-95393-35	RC4-SC-71	231 D X				
280-95393-36	RC4-SC-72	79				
280-95393-37	RC4-SC-73	91				
280-95393-38	RC4-SC-74	233 D X				
280-95393-39	RC4-SC-75	102				
280-95393-39 MS	RC4-SC-75	37 X				
280-95393-39 MSD	RC4-SC-75	43 X				
280-95393-40	RC4-SC-76	105				
LCS 280-367815/2-A	Lab Control Sample	84				
LCS 280-368014/2-A	Lab Control Sample	97				
LCS 280-368018/2-A	Lab Control Sample	88				
MB 280-367815/1-A	Method Blank	84				
MB 280-368014/1-A	Method Blank	95				
MB 280-368018/1-A	Method Blank	95				
Surrogate Legend						
TFT = a,a,a-Trifluorotoluene						

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)				
Lab Sample ID	Client Sample ID	OTPH1 (49-115)				
280-95393-21	RC4-SC-58	84				
280-95393-22	RC4-SC-59	134 X				
280-95393-23	RC4-SC-60	48 X D				
280-95393-24	RC4-SC-61	28 X D				
280-95393-25	RC4-SC-62	53				
280-95393-26	RC4-SC-63	31 X D				
280-95393-27	RC4-SC-64	83				
280-95393-28	RC4-SC-65	104				
280-95393-29	RC4-SC-66	43 X				

TestAmerica Denver

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

(Continued)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	OTPH1 (49-115)					
280-95393-30	RC4-SC-67	76					
280-95393-31	RC4-SC-68	99					
280-95393-32	RC4-SC-69	117 X					
280-95393-32 MS	RC4-SC-69	110					
280-95393-32 MSD	RC4-SC-69	108					
280-95393-33	RC4-SC-70	106					
280-95393-34	RC4-SC-DUP1	101					
280-95393-35	RC4-SC-71	58					
280-95393-36	RC4-SC-72	90					
280-95393-37	RC4-SC-73	45 X					
280-95393-38	RC4-SC-74	46 X D					
280-95393-39	RC4-SC-75	62					
280-95393-39 MS	RC4-SC-75	55					
280-95393-39 MSD	RC4-SC-75	91					
280-95393-40	RC4-SC-76	70					
LCS 280-367936/2-A	Lab Control Sample	114					
LCS 280-367989/2-A	Lab Control Sample	111					
MB 280-367936/1-A	Method Blank	115					
MB 280-367989/1-A	Method Blank	192 X					

Surrogate Legend

OTPH = o-Terphenyl (Surr)

QC Sample Results

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TestAmerica Job ID: 280-95797-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Lab Sample ID: MB 280-367815/1-A
 Matrix: Solid
 Analysis Batch: 368173

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 367815

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
OX, G (-160)	ND		6p2	0p77	muj3u	-	0Kj07j64 60:59	0Kj05j64 62:K	6
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	84		77 - 123				04/03/17 10:59	04/05/17 12:46	1

Lab Sample ID: LCS 280-367815/2-A
 Matrix: Solid
 Analysis Batch: 368173

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 367815

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
OX, G (-160)	5p50	5p99		muj3u	-	609	85 - 657
Surrogate	%Recovery	LCS Qualifier	Limits				
a,a,a-Trifluorotoluene	84		77 - 123				

Lab Sample ID: 280-95393-32 MS
 Matrix: Solid
 Analysis Batch: 368173

Client Sample ID: RC4-SC-69
 Prep Type: Total/NA
 Prep Batch: 367815

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
OX, G (-160)	0p6(	J	(p2(	( p40		muj3u	✱	88	85 - 657
Surrogate	%Recovery	MS Qualifier	Limits						
a,a,a-Trifluorotoluene	77		77 - 123						

Lab Sample ID: 280-95393-32 MSD
 Matrix: Solid
 Analysis Batch: 368173

Client Sample ID: RC4-SC-69
 Prep Type: Total/NA
 Prep Batch: 367815

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
OX, G (-160)	0p6(	J	(p4	4p70		muj3u	✱	94	85 - 657	67	70
Surrogate	%Recovery	MSD Qualifier	Limits								
a,a,a-Trifluorotoluene	78		77 - 123								

Lab Sample ID: MB 280-368014/1-A
 Matrix: Solid
 Analysis Batch: 368285

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 368014

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
OX, G (-160)	ND		6p2	0p77	muj3u	-	0Kj0Kj64 67:28	0Kj05j64 27:77	6
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	95		77 - 123				04/04/17 13:28	04/05/17 23:33	1

TestAmerica Del ver

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 368014

%Rec.

Client Sample ID: RC4-SC-75

Prep Type: Total/NA

Prep Batch: 368014

%Rec.

Client Sample ID: RC4-SC-75

Prep Type: Total/NA

Prep Batch: 368014

	%Rec.	RPD
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Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 368018

Prop = Datum 000010

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 368018

%Rec.

TestAmerica Del ver

QC Sample Results

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TestAmerica Job ID: 280-95797-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 280-367936/1-A
 Matrix: Solid
 Analysis Batch: 368632

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 367936

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DX, G 60-128)	ND		Kp0	0p 8	muj3u	-	0Kj0Kj64 60:27	0Kj60j64 62:59	6
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terhyen(I § urrX	115		49 - 115				04/04/17 10:23	04/10/17 12:59	1

Lab Sample ID: LCS 280-367936/2-A
 Matrix: Solid
 Analysis Batch: 368505

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 367936
 %Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
DX, G 60-128)	((p4	(5p8		muj3u	-	99	57 - 665
Surrogate	%Recovery	LCS Qualifier	Limits				
o-Terhyen(I § urrX	114		49 - 115				

Lab Sample ID: MB 280-367989/1-A
 Matrix: Solid
 Analysis Batch: 368183

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 367989

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DX, G 60-128)	ND		Kp0	0p 8	muj3u	-	0Kj0Kj64 62:K5	0Kj05j64 6(:79	6
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terhyen(I § urrX	192 p		49 - 115				04/04/17 12:45	04/05/17 16:39	1

Lab Sample ID: LCS 280-367989/2-A
 Matrix: Solid
 Analysis Batch: 368183

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 367989
 %Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
DX, G 60-128)	((p4	(6p8		muj3u	-	92	57 - 665
Surrogate	%Recovery	LCS Qualifier	Limits				
o-Terhyen(I § urrX	111		49 - 115				

Lab Sample ID: 280-95393-32 MS
 Matrix: Solid
 Analysis Batch: 368183

Client Sample ID: RC4-SC-69
 Prep Type: Total/NA
 Prep Batch: 367989
 %Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
DX, G 60-128)	59	F6	44pK	208	F6	muj3u	✱	697	5(- 665
Surrogate	%Recovery	MS Qualifier	Limits						
o-Terhyen(I § urrX	110		49 - 115						

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QC Sample Results

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TestAmerica Job ID: 280-95797-2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: 280-95393-32 MSD

Matrix: Solid

Analysis Batch: 368183

Client Sample ID: RC4-SC-69

Prep Type: Total/NA

Prep Batch: 367989

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
DX, G 60-128)	59	F6	47p	26K	F6	muj3u	✱	266	5(- 665	7	27
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
o-Terhyen(I § urrX	108		49 - 115								

Lab Sample ID: 280-95393-39 MS

Matrix: Solid

Analysis Batch: 368183

Client Sample ID: RC4-SC-75

Prep Type: Total/NA

Prep Batch: 367989

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits		
DX, G 60-128)	770	F2	48p	242	K	muj3u	✱	-44	5(- 665		
Surrogate	MS %Recovery	MS Qualifier	Limits								
o-Terhyen(I § urrX	55		49 - 115								

Lab Sample ID: 280-95393-39 MSD

Matrix: Solid

Analysis Batch: 368183

Client Sample ID: RC4-SC-75

Prep Type: Total/NA

Prep Batch: 367989

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
DX, G 60-128)	770	F2	82p	(88	K F2	muj3u	✱	K77	5(- 665	84	27
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
o-Terhyen(I § urrX	91		49 - 115								

Method: Moisture - Percent Moisture

Lab Sample ID: 280-95393-36 DU

Matrix: Solid

Analysis Batch: 367692

Client Sample ID: RC4-SC-72

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
. ercel t MoistSre	20p		26p		%		0p	20
. ercel t no@s	49p		49p		%		0p	20

TestAmerica Del ver

QC Association Summary

1 of 1 total test results of 1 sample
 . Project: 280-95797-2 / V - Xal ue 1,

TestAmerica Job ID: 280-95797-2

GC VOA

Prep Batch: 367815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-72	X1 d-n1-39	Total A	no	5075	
N6 280-73MB5jB-A	NethoO6Al k	Total A	no	5075	
L1 n 280-73MB5j2-A	Lab 1 of troChamg	Total A	no	5075	
280-95797-72 Nn	X1 d-n1-39	Total A	no	5075	
280-95797-72 NnD	X1 d-n1-39	Total A	no	5075	

Prep Batch: 368014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-2B	X1 d-n1-58	Total A	no	5075	
280-95797-22	X1 d-n1-59	Total A	no	5075	
280-95797-27	X1 d-n1-30	Total A	no	5075	
280-95797-2d	X1 d-n1-3B	Total A	no	5075	
280-95797-25	X1 d-n1-32	Total A	no	5075	
280-95797-23	X1 d-n1-37	Total A	no	5075	
280-95797-2M	X1 d-n1-3d	Total A	no	5075	
280-95797-28	X1 d-n1-35	Total A	no	5075	
280-95797-29	X1 d-n1-33	Total A	no	5075	
280-95797-70	X1 d-n1-3M	Total A	no	5075	
280-95797-7B	X1 d-n1-38	Total A	no	5075	
280-95797-77	X1 d-n1-M0	Total A	no	5075	
280-95797-7d	X1 d-n1-Dv . B	Total A	no	5075	
280-95797-75	X1 d-n1-MB	Total A	no	5075	
280-95797-73	X1 d-n1-M2	Total A	no	5075	
280-95797-7M	X1 d-n1-M7	Total A	no	5075	
280-95797-78	X1 d-n1-MI	Total A	no	5075	
280-95797-79	X1 d-n1-M5	Total A	no	5075	
N6 280-7380BdjB-A	NethoO6Al k	Total A	no	5075	
L1 n 280-7380Bdj2-A	Lab 1 of troChamg	Total A	no	5075	
280-95797-79 Nn	X1 d-n1-M5	Total A	no	5075	
280-95797-79 NnD	X1 d-n1-M5	Total A	no	5075	

Prep Batch: 368018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-d0	X1 d-n1-M8	Total A	no	5075	
N6 280-7380B8jB-A	NethoO6Al k	Total A	no	5075	
L1 n 280-7380B8j2-A	Lab 1 of troChamg	Total A	no	5075	

Analysis Batch: 368173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-72	X1 d-n1-39	Total A	no	80B51	73MB5
N6 280-73MB5jB-A	NethoO6Al k	Total A	no	80B51	73MB5
L1 n 280-73MB5j2-A	Lab 1 of troChamg	Total A	no	80B51	73MB5
280-95797-72 Nn	X1 d-n1-39	Total A	no	80B51	73MB5
280-95797-72 NnD	X1 d-n1-39	Total A	no	80B51	73MB5

Analysis Batch: 368285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-2B	X1 d-n1-58	Total A	no	80B51	7380Bd
280-95797-2d	X1 d-n1-3B	Total A	no	80B51	7380Bd
280-95797-75	X1 d-n1-MB	Total A	no	80B51	7380Bd
280-95797-78	X1 d-n1-MI	Total A	no	80B51	7380Bd

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QC Association Summary

1 of 1 total test results of 1 sample
 . Project name: 1 / V - Xal ue 1,

TestAmerica Job ID: 280-95797-2

GC VOA (Continued)

Analysis Batch: 368285 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
N6 280-7380BdjB-A	NethoO6@l k	Total A	no	80B51	7380Bd
L1 n 280-7380Bdj2-A	Lab 1 ol troQnamg@	Total A	no	80B51	7380Bd

Analysis Batch: 368351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-22	X1 d-n1 -59	Total A	no	80B51	7380Bd
280-95797-27	X1 d-n1 -30	Total A	no	80B51	7380Bd
280-95797-25	X1 d-n1 -32	Total A	no	80B51	7380Bd
280-95797-23	X1 d-n1 -37	Total A	no	80B51	7380Bd
280-95797-2M	X1 d-n1 -3d	Total A	no	80B51	7380Bd
280-95797-28	X1 d-n1 -35	Total A	no	80B51	7380Bd
280-95797-29	X1 d-n1 -33	Total A	no	80B51	7380Bd
280-95797-70	X1 d-n1 -3M	Total A	no	80B51	7380Bd
280-95797-7B	X1 d-n1 -38	Total A	no	80B51	7380Bd
280-95797-77	X1 d-n1 -M0	Total A	no	80B51	7380Bd
280-95797-7d	X1 d-n1 -Dv . B	Total A	no	80B51	7380Bd
280-95797-73	X1 d-n1 -M2	Total A	no	80B51	7380Bd
280-95797-7M	X1 d-n1 -M7	Total A	no	80B51	7380Bd
280-95797-79	X1 d-n1 -M5	Total A	no	80B51	7380Bd
280-95797-79 Nn	X1 d-n1 -M5	Total A	no	80B51	7380Bd
280-95797-79 NnD	X1 d-n1 -M5	Total A	no	80B51	7380Bd

Analysis Batch: 368624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-d0	X1 d-n1 -M8	Total A	no	80B51	7380B8
N6 280-7380B8jB-A	NethoO6@l k	Total A	no	80B51	7380B8
L1 n 280-7380B8j2-A	Lab 1 ol troQnamg@	Total A	no	80B51	7380B8

GC Semi VOA

Prep Batch: 367936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-2B	X1 d-n1 -58	Total A	no	75d3	
280-95797-22	X1 d-n1 -59	Total A	no	75d3	
280-95797-27	X1 d-n1 -30	Total A	no	75d3	
280-95797-2d	X1 d-n1 -3B	Total A	no	75d3	
280-95797-25	X1 d-n1 -32	Total A	no	75d3	
280-95797-23	X1 d-n1 -37	Total A	no	75d3	
280-95797-2M	X1 d-n1 -3d	Total A	no	75d3	
280-95797-28	X1 d-n1 -35	Total A	no	75d3	
280-95797-29	X1 d-n1 -33	Total A	no	75d3	
280-95797-70	X1 d-n1 -3M	Total A	no	75d3	
280-95797-7B	X1 d-n1 -38	Total A	no	75d3	
280-95797-77	X1 d-n1 -M0	Total A	no	75d3	
N6 280-73M73jB-A	NethoO6@l k	Total A	no	75d3	
L1 n 280-73M73j2-A	Lab 1 ol troQnamg@	Total A	no	75d3	

Prep Batch: 367989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-72	X1 d-n1 -39	Total A	no	75d3	

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QC Association Summary

1 of 1 total test results of 1 sample
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TestAmerica Job ID: 280-95797-2

GC Semi VOA (Continued)

Prep Batch: 367989 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-7d	X1 d-n1-Dv . B	Total A	no	75d3	
280-95797-75	X1 d-n1-MB	Total A	no	75d3	
280-95797-73	X1 d-n1-M2	Total A	no	75d3	
280-95797-7M	X1 d-n1-M7	Total A	no	75d3	
280-95797-78	X1 d-n1-M1	Total A	no	75d3	
280-95797-79	X1 d-n1-M5	Total A	no	75d3	
280-95797-d0	X1 d-n1-M8	Total A	no	75d3	
N6 280-73M89jB-A	NethoO6Al k	Total A	no	75d3	
L1 n 280-73M89j2-A	Lab 1 of troQamg	Total A	no	75d3	
280-95797-72 Nn	X1 d-n1-39	Total A	no	75d3	
280-95797-72 NnD	X1 d-n1-39	Total A	no	75d3	
280-95797-79 Nn	X1 d-n1-M5	Total A	no	75d3	
280-95797-79 NnD	X1 d-n1-M5	Total A	no	75d3	

Analysis Batch: 368183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-72	X1 d-n1-39	Total A	no	80B51	73M89
280-95797-7d	X1 d-n1-Dv . B	Total A	no	80B51	73M89
280-95797-75	X1 d-n1-MB	Total A	no	80B51	73M89
280-95797-73	X1 d-n1-M2	Total A	no	80B51	73M89
280-95797-7M	X1 d-n1-M7	Total A	no	80B51	73M89
280-95797-79	X1 d-n1-M5	Total A	no	80B51	73M89
280-95797-d0	X1 d-n1-M8	Total A	no	80B51	73M89
N6 280-73M89jB-A	NethoO6Al k	Total A	no	80B51	73M89
L1 n 280-73M89j2-A	Lab 1 of troQamg	Total A	no	80B51	73M89
280-95797-72 Nn	X1 d-n1-39	Total A	no	80B51	73M89
280-95797-72 NnD	X1 d-n1-39	Total A	no	80B51	73M89
280-95797-79 Nn	X1 d-n1-M5	Total A	no	80B51	73M89
280-95797-79 NnD	X1 d-n1-M5	Total A	no	80B51	73M89

Analysis Batch: 368348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-78	X1 d-n1-M1	Total A	no	80B51	73M89

Analysis Batch: 368505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-2B	X1 d-n1-58	Total A	no	80B51	73M73
280-95797-22	X1 d-n1-59	Total A	no	80B51	73M73
280-95797-25	X1 d-n1-32	Total A	no	80B51	73M73
280-95797-2M	X1 d-n1-3d	Total A	no	80B51	73M73
280-95797-28	X1 d-n1-35	Total A	no	80B51	73M73
280-95797-29	X1 d-n1-33	Total A	no	80B51	73M73
280-95797-70	X1 d-n1-3M	Total A	no	80B51	73M73
280-95797-7B	X1 d-n1-38	Total A	no	80B51	73M73
280-95797-77	X1 d-n1-M0	Total A	no	80B51	73M73
L1 n 280-73M73j2-A	Lab 1 of troQamg	Total A	no	80B51	73M73

Analysis Batch: 368632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-27	X1 d-n1-30	Total A	no	80B51	73M73
280-95797-2d	X1 d-n1-3B	Total A	no	80B51	73M73

TestAmerica Del Uer

QC Association Summary

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TestAmerica Job ID: 280-95797-2

GC Semi VOA (Continued)

Analysis Batch: 368632 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-23	X1 d-n1 -37	Total A	no	80B51	73M73
N6 280-73M73jB-A	NethoO6Al k	Total A	no	80B51	73M73

General Chemistry

Analysis Batch: 367692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-2B	X1 d-n1 -58	Total A	no	NoistSre	
280-95797-22	X1 d-n1 -59	Total A	no	NoistSre	
280-95797-27	X1 d-n1 -30	Total A	no	NoistSre	
280-95797-2d	X1 d-n1 -3B	Total A	no	NoistSre	
280-95797-25	X1 d-n1 -32	Total A	no	NoistSre	
280-95797-23	X1 d-n1 -37	Total A	no	NoistSre	
280-95797-2M	X1 d-n1 -3d	Total A	no	NoistSre	
280-95797-28	X1 d-n1 -35	Total A	no	NoistSre	
280-95797-29	X1 d-n1 -33	Total A	no	NoistSre	
280-95797-70	X1 d-n1 -3M	Total A	no	NoistSre	
280-95797-7B	X1 d-n1 -38	Total A	no	NoistSre	
280-95797-72	X1 d-n1 -39	Total A	no	NoistSre	
280-95797-77	X1 d-n1 -M0	Total A	no	NoistSre	
280-95797-7d	X1 d-n1 -Dv . B	Total A	no	NoistSre	
280-95797-75	X1 d-n1 -MB	Total A	no	NoistSre	
280-95797-73	X1 d-n1 -M2	Total A	no	NoistSre	
280-95797-7M	X1 d-n1 -M7	Total A	no	NoistSre	
280-95797-78	X1 d-n1 -M1	Total A	no	NoistSre	
280-95797-79	X1 d-n1 -M5	Total A	no	NoistSre	
280-95797-d0	X1 d-n1 -M8	Total A	no	NoistSre	
280-95797-73 Dv	X1 d-n1 -M2	Total A	no	NoistSre	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-2

Client Sample ID: RC4-SC-58

Date Collected: 03/30/17 11:45

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-21

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	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-58

Date Collected: 03/30/17 11:45

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-21

Matrix: Solid

Percent Solids: 82.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.77 g	5 mL	368014	04/04/17 13:28	KDK	TAL DEN
Total/NA	Analysis	8015C		10	0.1 mL	5 mL	368285	04/06/17 01:13	KDK	TAL DEN
Total/NA	Prep	3546			30.8 g	1 mL	367936	04/04/17 10:23	JRA	TAL DEN
Total/NA	Analysis	8015C		1			368505	04/07/17 19:31	TEM	TAL DEN

Client Sample ID: RC4-SC-59

Date Collected: 03/30/17 11:50

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-22

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	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-59

Date Collected: 03/30/17 11:50

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-22

Matrix: Solid

Percent Solids: 81.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.11 g	5 mL	368014	04/04/17 13:28	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368351	04/06/17 14:56	KDK	TAL DEN
Total/NA	Prep	3546			30.7 g	1 mL	367936	04/04/17 10:23	JRA	TAL DEN
Total/NA	Analysis	8015C		1			368505	04/07/17 19:56	TEM	TAL DEN

Client Sample ID: RC4-SC-60

Date Collected: 03/30/17 11:55

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-23

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	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-60

Date Collected: 03/30/17 11:55

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-23

Matrix: Solid

Percent Solids: 83.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.88 g	5 mL	368014	04/04/17 13:28	KDK	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-2

Client Sample ID: RC4-SC-60

Lab Sample ID: 280-95393-23

Date Collected: 03/30/17 11:55

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 83.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015C		5	0.1 mL	5 mL	368351	04/06/17 15:21	KDK	TAL DEN
Total/NA	Prep	3546			30.8 g	1 mL	367936	04/04/17 10:23	JRA	TAL DEN
Total/NA	Analysis	8015C		5			368632	04/10/17 16:39	TEM	TAL DEN

Client Sample ID: RC4-SC-61

Lab Sample ID: 280-95393-24

Date Collected: 03/30/17 12:00

Matrix: Solid

Date Received: 03/31/17 16:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-61

Lab Sample ID: 280-95393-24

Date Collected: 03/30/17 12:00

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 80.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.19 g	5 mL	368014	04/04/17 13:28	KDK	TAL DEN
Total/NA	Analysis	8015C		10	0.1 mL	5 mL	368285	04/06/17 02:27	KDK	TAL DEN
Total/NA	Prep	3546			30.1 g	1 mL	367936	04/04/17 10:23	JRA	TAL DEN
Total/NA	Analysis	8015C		5			368632	04/10/17 17:04	TEM	TAL DEN

Client Sample ID: RC4-SC-62

Lab Sample ID: 280-95393-25

Date Collected: 03/30/17 12:05

Matrix: Solid

Date Received: 03/31/17 16:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-62

Lab Sample ID: 280-95393-25

Date Collected: 03/30/17 12:05

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 76.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.81 g	5 mL	368014	04/04/17 13:28	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368351	04/06/17 15:46	KDK	TAL DEN
Total/NA	Prep	3546			30.1 g	1 mL	367936	04/04/17 10:23	JRA	TAL DEN
Total/NA	Analysis	8015C		1			368505	04/07/17 22:00	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-2

Client Sample ID: RC4-SC-63

Lab Sample ID: 280-95393-26

Date Collected: 03/30/17 12:10

Matrix: Solid

Date Received: 03/31/17 16:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-63

Lab Sample ID: 280-95393-26

Date Collected: 03/30/17 12:10

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 83.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.83 g	5 mL	368014	04/04/17 13:28	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368351	04/06/17 16:11	KDK	TAL DEN
Total/NA	Prep	3546			32.3 g	1 mL	367936	04/04/17 10:23	JRA	TAL DEN
Total/NA	Analysis	8015C		5			368632	04/10/17 17:28	TEM	TAL DEN

Client Sample ID: RC4-SC-64

Lab Sample ID: 280-95393-27

Date Collected: 03/30/17 12:15

Matrix: Solid

Date Received: 03/31/17 16:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-64

Lab Sample ID: 280-95393-27

Date Collected: 03/30/17 12:15

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 82.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	368014	04/04/17 13:28	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368351	04/06/17 16:36	KDK	TAL DEN
Total/NA	Prep	3546			31.6 g	1 mL	367936	04/04/17 10:23	JRA	TAL DEN
Total/NA	Analysis	8015C		1			368505	04/07/17 22:49	TEM	TAL DEN

Client Sample ID: RC4-SC-65

Lab Sample ID: 280-95393-28

Date Collected: 03/30/17 12:20

Matrix: Solid

Date Received: 03/31/17 16:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-65

Lab Sample ID: 280-95393-28

Date Collected: 03/30/17 12:20

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 79.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.10 g	5 mL	368014	04/04/17 13:28	KDK	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-2

Client Sample ID: RC4-SC-65

Lab Sample ID: 280-95393-28

Date Collected: 03/30/17 12:20

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 79.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368351	04/06/17 17:02	KDK	TAL DEN
Total/NA	Prep	3546			31.4 g	1 mL	367936	04/04/17 10:23	JRA	TAL DEN
Total/NA	Analysis	8015C		1			368505	04/07/17 23:38	TEM	TAL DEN

Client Sample ID: RC4-SC-66

Lab Sample ID: 280-95393-29

Date Collected: 03/30/17 12:25

Matrix: Solid

Date Received: 03/31/17 16:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-66

Lab Sample ID: 280-95393-29

Date Collected: 03/30/17 12:25

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 81.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	368014	04/04/17 13:28	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368351	04/06/17 17:52	KDK	TAL DEN
Total/NA	Prep	3546			30.8 g	1 mL	367936	04/04/17 10:23	JRA	TAL DEN
Total/NA	Analysis	8015C		1			368505	04/08/17 00:03	TEM	TAL DEN

Client Sample ID: RC4-SC-67

Lab Sample ID: 280-95393-30

Date Collected: 03/30/17 12:30

Matrix: Solid

Date Received: 03/31/17 16:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-67

Lab Sample ID: 280-95393-30

Date Collected: 03/30/17 12:30

Matrix: Solid

Date Received: 03/31/17 16:55

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			4.92 g	5 mL	368014	04/04/17 13:28	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368351	04/06/17 18:17	KDK	TAL DEN
Total/NA	Prep	3546			32.8 g	1 mL	367936	04/04/17 10:23	JRA	TAL DEN
Total/NA	Analysis	8015C		1			368505	04/08/17 00:27	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-2

Client Sample ID: RC4-SC-68

Lab Sample ID: 280-95393-31

Date Collected: 03/30/17 12:35

Matrix: Solid

Date Received: 03/31/17 16:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-68

Lab Sample ID: 280-95393-31

Date Collected: 03/30/17 12:35

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 83.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.21 g	5 mL	368014	04/04/17 13:28	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368351	04/06/17 18:42	KDK	TAL DEN
Total/NA	Prep	3546			30.8 g	1 mL	367936	04/04/17 10:23	JRA	TAL DEN
Total/NA	Analysis	8015C		1			368505	04/08/17 00:52	TEM	TAL DEN

Client Sample ID: RC4-SC-69

Lab Sample ID: 280-95393-32

Date Collected: 03/30/17 12:40

Matrix: Solid

Date Received: 03/31/17 16:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-69

Lab Sample ID: 280-95393-32

Date Collected: 03/30/17 12:40

Matrix: Solid

Date Received: 03/31/17 16:55

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			5.17 g	5 mL	367815	04/03/17 10:59	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368173	04/05/17 21:53	KDK	TAL DEN
Total/NA	Prep	3546			30.3 g	1 mL	367989	04/04/17 12:45	JRA	TAL DEN
Total/NA	Analysis	8015C		1			368183	04/05/17 17:28	TEM	TAL DEN

Client Sample ID: RC4-SC-70

Lab Sample ID: 280-95393-33

Date Collected: 03/30/17 12:45

Matrix: Solid

Date Received: 03/31/17 16:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-70

Lab Sample ID: 280-95393-33

Date Collected: 03/30/17 12:45

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 81.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	368014	04/04/17 13:28	KDK	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-2

Client Sample ID: RC4-SC-70

Lab Sample ID: 280-95393-33

Date Collected: 03/30/17 12:45

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 81.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368351	04/06/17 19:07	KDK	TAL DEN
Total/NA	Prep	3546			31.9 g	1 mL	367936	04/04/17 10:23	JRA	TAL DEN
Total/NA	Analysis	8015C		1			368505	04/08/17 01:17	TEM	TAL DEN

Client Sample ID: RC4-SC-DUP1

Lab Sample ID: 280-95393-34

Date Collected: 03/30/17 12:45

Matrix: Solid

Date Received: 03/31/17 16:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-DUP1

Lab Sample ID: 280-95393-34

Date Collected: 03/30/17 12:45

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 82.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.76 g	5 mL	368014	04/04/17 13:28	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368351	04/06/17 19:32	KDK	TAL DEN
Total/NA	Prep	3546			30.5 g	1 mL	367989	04/04/17 12:45	JRA	TAL DEN
Total/NA	Analysis	8015C		1			368183	04/05/17 18:42	TEM	TAL DEN

Client Sample ID: RC4-SC-71

Lab Sample ID: 280-95393-35

Date Collected: 03/30/17 12:50

Matrix: Solid

Date Received: 03/31/17 16:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-71

Lab Sample ID: 280-95393-35

Date Collected: 03/30/17 12:50

Matrix: Solid

Date Received: 03/31/17 16:55

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			4.81 g	5 mL	368014	04/04/17 13:28	KDK	TAL DEN
Total/NA	Analysis	8015C		10	0.1 mL	5 mL	368285	04/06/17 07:00	KDK	TAL DEN
Total/NA	Prep	3546			30.5 g	1 mL	367989	04/04/17 12:45	JRA	TAL DEN
Total/NA	Analysis	8015C		1			368183	04/05/17 19:07	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-2

Client Sample ID: RC4-SC-72

Lab Sample ID: 280-95393-36

Date Collected: 03/30/17 12:55

Matrix: Solid

Date Received: 03/31/17 16:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-72

Lab Sample ID: 280-95393-36

Date Collected: 03/30/17 12:55

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 79.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.13 g	5 mL	368014	04/04/17 13:28	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368351	04/06/17 20:22	KDK	TAL DEN
Total/NA	Prep	3546			30.1 g	1 mL	367989	04/04/17 12:45	JRA	TAL DEN
Total/NA	Analysis	8015C		1			368183	04/05/17 19:31	TEM	TAL DEN

Client Sample ID: RC4-SC-73

Lab Sample ID: 280-95393-37

Date Collected: 03/30/17 13:00

Matrix: Solid

Date Received: 03/31/17 16:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-73

Lab Sample ID: 280-95393-37

Date Collected: 03/30/17 13:00

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 83.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.92 g	5 mL	368014	04/04/17 13:28	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368351	04/06/17 20:47	KDK	TAL DEN
Total/NA	Prep	3546			30.4 g	1 mL	367989	04/04/17 12:45	JRA	TAL DEN
Total/NA	Analysis	8015C		1			368183	04/05/17 19:56	TEM	TAL DEN

Client Sample ID: RC4-SC-74

Lab Sample ID: 280-95393-38

Date Collected: 03/30/17 13:05

Matrix: Solid

Date Received: 03/31/17 16:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-74

Lab Sample ID: 280-95393-38

Date Collected: 03/30/17 13:05

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 83.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.91 g	5 mL	368014	04/04/17 13:28	KDK	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-2

Client Sample ID: RC4-SC-74

Lab Sample ID: 280-95393-38

Date Collected: 03/30/17 13:05

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 83.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015C		10	0.1 mL	5 mL	368285	04/06/17 08:15	KDK	TAL DEN
Total/NA	Prep	3546			30.3 g	1 mL	367989	04/04/17 12:45	JRA	TAL DEN
Total/NA	Analysis	8015C		5			368348	04/06/17 20:24	TEM	TAL DEN

Client Sample ID: RC4-SC-75

Lab Sample ID: 280-95393-39

Date Collected: 03/30/17 13:10

Matrix: Solid

Date Received: 03/31/17 16:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-75

Lab Sample ID: 280-95393-39

Date Collected: 03/30/17 13:10

Matrix: Solid

Date Received: 03/31/17 16:55

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			4.77 g	5 mL	368014	04/04/17 13:28	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368351	04/06/17 21:12	KDK	TAL DEN
Total/NA	Prep	3546			31.2 g	1 mL	367989	04/04/17 12:45	JRA	TAL DEN
Total/NA	Analysis	8015C		1			368183	04/05/17 21:59	TEM	TAL DEN

Client Sample ID: RC4-SC-76

Lab Sample ID: 280-95393-40

Date Collected: 03/30/17 13:15

Matrix: Solid

Date Received: 03/31/17 16:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

Client Sample ID: RC4-SC-76

Lab Sample ID: 280-95393-40

Date Collected: 03/30/17 13:15

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 81.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.94 g	5 mL	368018	04/04/17 13:56	KDK	TAL DEN
Total/NA	Analysis	8015C		2	0.1 mL	5 mL	368624	04/06/17 23:40	KDK	TAL DEN
Total/NA	Prep	3546			30.0 g	1 mL	367989	04/04/17 12:45	JRA	TAL DEN
Total/NA	Analysis	8015C		1			368183	04/05/17 23:12	TEM	TAL DEN

Laboratory References:

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

TestAmerica Denver

Accreditation/Certification Summary

Client: Stantec Consulting Corp.

TestAmerica Job ID: 280-94696-2

Project Site: Stantec C/ V - Xangel R/C,

Laboratory: TestAmerica Denver

All accreditation/certifications of the laboratory are listed. Not all accreditation/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2NA	DoD ENA1		290L.07	70-67-7L
A2NA	IS, jIEC 7L024		290L.07	70-67-7L
Alabama	State 1 rogram	3	30L60	09-60-72 5
Alaska k STU	State 1 rogram	70	(ST-60	03-04-78
Arizona	State 1 rogram	9	Az 0L76	72-20-7L
Arkansas DEZ	State 1 rogram	Q	88-0Q8L	0Q07-7L
California	State 1 rogram	9	2476	07-08-78 5
Connecticut	State 1 rogram	7	1H-0Q8Q	09-60-78
Florida	h ENA1	3	E8LQQL	0Q60-7L
Georgia	State 1 rogram	3	hJA	07-08-78
Illinois	h ENA1	4	20007L	03-60-78
Iowa	State 1 rogram	L	6L0	72-07-78 5
Kansas	h ENA1	L	E-707QQ	03-60-7L 5
Louisiana	h ENA1	Q	0209Q	0Q60-7L
Maine	State 1 rogram	7	C, 0002	06-06-79
Minnesota	h ENA1	4	8-999-304	72-67-7L 5
Nebraska	State 1 rogram	9	C, 002Q	0L-67-7L
New Hampshire	h ENA1	7	204670	03-28-7L
New Jersey	h ENA1	2	C, 003	0Q60-7L
New York	h ENA1	2	779QB	03-07-78
North Carolina kWWjSWU	State 1 rogram	3	648	72-67-7L
North Dakota	State 1 rogram	8	X-063	07-09-78
Ohio	State 1 rogram	Q	8Q73	08-67-7L
Oregon	h ENA1	70	3024	07-08-78
Tennessee	h ENA1	6	QB-00QQB	0L-67-7L
South Carolina	State 1 rogram	3	L2002007	07-09-7L 5
Texas	h ENA1	Q	T703L03786-7Q-72	09-60-7L
U.S. SDA	FeQeral		1660-7Q-0069L	72-74-79
Utah	h ENA1	8	C, 0002Q	0L-67-7L
Virginia	h ENA1	6	3Q262	0Q73-7L
Washington	State 1 rogram	70	C486	08-02-7L
West Virginia DE1	State 1 rogram	6	643	77-60-7L
Wisconsin	State 1 rogram	4	999Q74360	08-67-7L
Wyoming k STU	A2NA	8	290L.07	70-67-7L

Arvada, CO 80002-4517
phone 303.736.0100 fax 303.431.7171

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Bethany Lucente		Site Contact: Bethany Lucente		Date: 3/31/2017	
Tel/Fax: (303) 250-4718		Lab Contact: Jamie Ide		Carrier: Courier		COC No: 2 of 5 Pages	
2000 South Colorado Blvd., Suite 2-300		Analysis Turnaround Time		Sampler: Stauthamer/Jones		For Lab Use Only:	
Denver, CO 80222		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS TAT if different from Below <input checked="" type="checkbox"/> ASAP <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Walk-in Client:		Lab Sampling:	
(303) 758-4058 Phone				Job / SDG No.:			
(303) 758-4828 FAX							
Project Name: CPL-Rangely C-4							
Site: CPL Rangely							
P O # 203720102							

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	GRO-TEPH 8015C	DRO-TEPH 8015C	Sample Specific Notes:
RC4-SC-59	3/30/2017	1150	G	Soil	2	N	N	X	X	
RC4-SC-60	3/30/2017	1155	G	Soil	2	N	N	X	X	
RC4-SC-61	3/30/2017	1200	G	Soil	2	N	N	X	X	
RC4-SC-62	3/30/2017	1205	G	Soil	2	N	N	X	X	
RC4-SC-63	3/30/2017	1210	G	Soil	2	N	N	X	X	
RC4-SC-64	3/30/2017	1215	G	Soil	2	N	N	X	X	
RC4-SC-65	3/30/2017	1220	G	Soil	2	N	N	X	X	
RC4-SC-66	3/30/2017	1225	G	Soil	2	N	N	X	X	
RC4-SC-67	3/30/2017	1230	G	Soil	2	N	N	X	X	
RC4-SC-68	3/30/2017	1235	G	Soil	2	N	N	X	X	
RC4-SC-69	3/30/2017	1240	G	Soil	6	N	Y	X	X	
RC4-SC-70	3/30/2017	1245	G	Soil	2	N	N	X	X	
RC4-SC-DUP1	3/30/2017	1245	G	Soil	4	N	N	X	X	
RC4-SC-71	3/30/2017	1250	G	Soil	2	N	N	X	X	
RC4-SC-72	3/30/2017	1255	G	Soil	2	N	N	X	X	
RC4-SC-73	3/30/2017	1300	G	Soil	2	N	N	X	X	
RC4-SC-74	3/30/2017	1305	G	Soil	2	N	N	X	X	
RC4-SC-75	3/30/2017	1310	G	Soil	6	N	Y	X	X	
RC4-SC-76	3/30/2017	1315	G	Soil	2	N	N	X	X	
RC4-SC-DUP2	3/30/2017	1315	G	Soil	4	N	N	X	X	
RC4-SC-77	3/30/2017	1320	G	Soil	2	N	N	X	X	

Chain of Custody Record

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Bethany Lucente		Site Contact: Bethany Lucente		Date: 3/31/2017	
Tel/Fax: (303) 250-4718		Analysis Turnaround Time		Lab Contact: Jamie Ide		Carrier: Courier	
2000 South Colorado Blvd., Suite 2-300		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS		Perform MS / MSD (Y / N)		COC No: 3 of 5 Pages	
Denver, CO 80222		TAT if different from Below		Filtered Sample (Y / N)		Sampler: Stauthamer/Jones	
(303) 758-4058 Phone		ASAP		GRO-TEPH 8015C		For Lab Use Only:	
(303) 758-4828 FAX		2 weeks		DRO-TEPH 8015C		Walk-in Client:	
Project Name: CPL-Rangely C-4		1 week				Lab Sampling:	
Site: CPL Rangely		2 days				Job / SDG No.:	
P O # 203720102		1 day				Sample Specific Notes:	
Sample Identification	Sample Date	Sample Time	Sample Type (C-Comp, G-Gab)	Matrix	# of Cont.		
RC4-SC-78	3/30/2017	1325	G	Soil	2	N	
RC4-SC-79	3/30/2017	1330	G	Soil	2	N	
RC4-SC-80	3/30/2017	1335	G	Soil	2	N	
RC4-SC-DUP3	3/30/2017	1335	G	Soil	4	N	
RC4-SC-81	3/30/2017	1450	G	Soil	2	N	
RC4-SC-82	3/30/2017	1455	G	Soil	2	N	
RC4-SC-83	3/30/2017	1500	G	Soil	2	N	
RC4-SC-84	3/30/2017	1505	G	Soil	2	N	
RC4-SC-85	3/30/2017	1510	G	Soil	2	N	
RC4-SC-86	3/30/2017	1515	G	Soil	2	N	
RC4-SC-87	3/30/2017	1520	G	Soil	2	N	
RC4-SC-DUP4	3/30/2017	1520	G	Soil	4	N	
RC4-SC-88	3/30/2017	1525	G	Soil	2	N	
RC4-SC-89	3/30/2017	1530	G	Soil	2	N	
RC4-SC-90	3/30/2017	1535	G	Soil	2	N	
RC4-SC-91	3/30/2017	1540	G	Soil	2	N	
RC4-SC-92	3/30/2017	1545	G	Soil	6	N	
RC4-SC-93	3/30/2017	1550	G	Soil	2	N	
RC4-SC-94	3/30/2017	1555	G	Soil	2	N	
RC4-SC-95	3/30/2017	1600	G	Soil	2	N	
RC4-SC-96	3/30/2017	1605	G	Soil	2	N	

Revised 3-31-17 1655 TAD

Chain of Custody Record

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Bethany Lucente		Site Contact: Bethany Lucente		Date: 3/31/2017		COC No: 14 of 5 Pages	
Tel/Fax: (303) 250-4718		Analysis Turnaround Time		Lab Contact: Jamie Ide		Carrier: Courier		Sampler: Stautthamer/Jones	
2000 South Colorado Blvd., Suite 2-300		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS		Filtered Sample (Y/N)				For Lab Use Only:	
Denver, CO 80222		TAT if different from Below		Perform MS / MSD (Y/N)				Walk-in Client:	
(303) 758-4058 Phone		ASAP		DRO-TEPH 8015C				Lab Sampling:	
(303) 758-4828 FAX		<input checked="" type="checkbox"/> 2 weeks		GRO-TEPH 8015C				Job / SDG No.:	
Project Name: CPL-Rangely C-4		<input type="checkbox"/> 1 week							
Site: CPL Rangely		<input type="checkbox"/> 2 days							
P O # 203720102		<input type="checkbox"/> 1 day							
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	GRO-TEPH 8015C	DRO-TEPH 8015C
RC4-SC-DUP5	3/30/2017	1610	G	Soil	4	N	N	X	X
RC4-SC-97	3/30/2017	1610	G	Soil	6	N	Y	X	X
RC4-SC-98	3/30/2017	1615	G	Soil	2	N	N	X	X
RC4-SC-99	3/30/2017	1620	G	Soil	2	N	N	X	X
RC4-SC-100	3/30/2017	1625	G	Soil	2	N	N	X	X
RC4-SC-101	3/30/2017	1630	G	Soil	2	N	N	X	X
RC4-SC-102	3/30/2017	1635	G	Soil	2	N	N	X	X
RC4-SC-103	3/30/2017	1640	G	Soil	2	N	N	X	X
RC4-SC-104	3/30/2017	1645	G	Soil	2	N	N	X	X
RC4-SC-105	3/30/2017	1650	G	Soil	2	N	N	X	X
RC4-SC-DUP6	3/30/2017	1650	G	Soil	4	N	N	X	X
RC4-SC-106	3/30/2017	1655	G	Soil	6	N	Y	X	X
RC4-SC-107	3/30/2017	1700	G	Soil	2	N	N	X	X
RC4-SC-108	3/30/2017	1705	G	Soil	2	N	N	X	X
RC4-SC-109	3/30/2017	1710	G	Soil	2	N	N	X	X
RC4-SC-110	3/30/2017	1715	G	Soil	2	N	N	X	X
RC4-SC-111	3/30/2017	1720	G	Soil	2	N	N	X	X
RC4-SC-112	3/30/2017	1725	G	Soil	2	N	N	X	X
RC4-SC-113	3/30/2017	1730	G	Soil	2	N	N	X	X
RC4-SC-114	3/30/2017	1735	G	Soil	2	N	N	X	X
RC4-SC-115	3/30/2017	1740	G	Soil	2	N	N	X	X

Reed PETA 3-31-17 1655 T40

Chain of Custody Record

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: ☐

Client Contact		Project Manager: Bethany Lucente Tel/Fax: (303) 250-4718		Site Contact: Bethany Lucente Lab Contact: Jamie Ide		Date: 3/31/2017 Carrier: Courier		COC No: 5 of 5 Pages	
2000 South Colorado Blvd., Suite 2-300 Denver, CO 80222		Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS TAT if different from Below ASAP <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.:		Sampler: Stauthamer/Jones			
Project Name: CPL-Rangely C-4 Site: CPL Rangely P O # 203720102									

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Sample Specific Notes:
RC4-SC-DUP7	3/30/2017	1745	G	Soil	4	N	X	DRO-TEPH 8015C
RC4-SC-116	3/30/2017	1745	G	Soil	6	N	X	
RC4-SC-117	3/30/2017	1750	G	Soil	2	N	X	
RC4-SC-118	3/30/2017	1755	G	Soil	2	N	X	
RC4-SC-119	3/30/2017	1800	G	Soil	2	N	X	
RC4-SC-120	3/30/2017	1805	G	Soil	2	N	X	
RC4-SC-121	3/30/2017	1810	G	Soil	2	N	X	
RC4-SC-122	3/30/2017	1815	G	Soil	2	N	X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Special Instructions/QC Requirements & Comments: Metals Include Ba, B, Cd, Cr, Cu, Pb, Ni, Se, Ag, Zn

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____		Corr'd: _____		Therm ID No.:	
Relinquished by: Mike Stauthamer/ide		Company: Stauter		Received by: [Signature]		Company: TAP		Date/Time: 3-31-17 1655	
Relinquished by:		Company:		Received by:		Company:		Date/Time:	
Relinquished by:		Company:		Received in Laboratory by:		Company:		Date/Time:	

Form No. CA-C-WI-002, Rev. 4.11, dated 1/24/2017

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-95393-2

Login Number: 95393

List Source: TestAmerica Denver

List Number: 1

Creator: Pottruff, Reed W

Question	Answer	Comment
Activity was conducted in a background measurement by a survey meter.	No	
Is the container seal intact, present?	Yes	
Sample seals intact, present?	Yes	
Is the cooler or samples not appear to have been compromised or tampered with?	Yes	
Samples were received on ice.	Yes	
Cooler temperature is acceptable.	False	SAMPLE DLS=LAE/ DCL M = UN=UE/ D ALCLYLE UI = Uf =LF M
Cooler temperature is recorded.	Yes	
CUC is present.	Yes	
CUC is clearly in handwritten legible.	Yes	
CUC is clearly in all pertinent information.	Yes	
Is the sample name present on CUC?	Yes	
Are there no discrepancies between the containers received and the CUC.	False	FSSW? CUN=/ WLAS f UA EI MS/ F MPLS
Samples are received in the Ring time (during tests by the immediate G=xx	Yes	
Sample containers have legible labels.	Yes	
Containers are not broken or leaking.	Yes	
Sample collection dates are provided.	Yes	
Appropriate sample containers are used.	Yes	
Sample bottles are completely filled.	Yes	
Sample preservation is correct.	No	
Is there sufficient detail for all the requested analyses included in the request?	Yes	
Containers are clearly marked with no extra space or bubble is present.	No	
Multiple samples are not present.	Yes	
Samples are not being split or composited.	Yes	
Is the label clearly legible?	No	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver

4955 Yarrow Street

Arvada, CO 80002

Tel: (303)736-0100

TestAmerica Job ID: 280-95393-3

Client Project/Site: Stantec CVX - Rangely, CO

For:

Stantec Consulting Corp.

2000 South Colorado Blvd

Suite 2-300

Denver, Colorado 80222

Attn: Ms. Bethany Lucente



Authorized for release by:

4/17/2017 4:24:25 PM

Jamie Ide, Project Manager I

(303)736-0126

jamie.ide@testamericainc.com

LINKS

Review your project
results through

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Have a Question?



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www.testamericainc.com

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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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-3

Qualifiers

GC SmV

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
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F2	MS/MSD RPD exceeds control limits
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

GC cep i SmV

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
B	Compound was found in the blank and sample.
F2	MS/MSD RPD exceeds control limits
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
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 are the only abbreviations that 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, 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)

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-3

Job ID: 280-95393-3

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Stantec Consulting Corp.
Project: Stantec CVX - Rangely, CO
Report Number: 280-95393-3

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 on 3/31/2017 4:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 8.9° C, 10.1° C, 13.5° C and 13.9° C.

Due to the large number of samples received, the samples have been logged in a job series of ~20 samples per SDG (280-95393-1, 280-95393-2, 280-95393-4, 280-95393-5). This SDG includes samples 41-60 listed on the chain of custody.

The chain of custody indicates 4 containers were received for each of the following samples: RC4-SC-DUP2 (280-95393-41), RC4-SC-DUP3 (280-95393-46), RC4-SC-DUP4 (280-95393-54). However, it was noted at the time of sample receipt only 2 containers were received for each sample. Sufficient volume is available for analysis; therefore, corrective action was not performed.

GASOLINE RANGE ORGANICS (GRO)

a,a,a-Trifluorotoluene failed the surrogate recovery criteria for RC4-SC-78 (280-95393-43), RC4-SC-79 (280-95393-44), RC4-SC-80 (280-95393-45), RC4-SC-DUP3 (280-95393-46), RC4-SC-81 (280-95393-47), RC4-SC-83 (280-95393-49), RC4-SC-88 (280-95393-55), RC4-SC-90 (280-95393-57) and RC4-SC-91 (280-95393-58). Evidence of matrix interference is present; therefore, corrective action was not performed. 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. The surrogate recoveries are calculated from diluted samples and in some cases are diluted below reportable limits.

GRO (C6-C10) failed the recovery criteria low for the MS of sample RC4-SC-92 (280-95393-59). Additionally, GRO (C6-C10) exceeded the RPD limit. The associated LCS was in control; therefore, corrective action was not performed.

Samples RC4-SC-DUP2 (280-95393-41)[5X], RC4-SC-79 (280-95393-44)[20X], RC4-SC-81 (280-95393-47)[20X], RC4-SC-86 (280-95393-52)[5X], RC4-SC-88 (280-95393-55)[20X], RC4-SC-89 (280-95393-56)[5X], RC4-SC-90 (280-95393-57)[20X], RC4-SC-91 (280-95393-58)[5X] and RC4-SC-93 (280-95393-60)[10X] required dilution prior to analysis due to the nature of the sample matrix. The reporting limits have been adjusted accordingly.

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

DIESEL RANGE ORGANICS

DRO (C10-C28) was detected in method blank MB 280-368129/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

o-Terphenyl failed the surrogate recovery criteria for RC4-SC-81 (280-95393-47), RC4-SC-82 (280-95393-48), RC4-SC-84 (280-95393-50), RC4-SC-86 (280-95393-52), RC4-SC-87 (280-95393-53), RC4-SC-DUP4 (280-95393-54), RC4-SC-88 (280-95393-55), RC4-SC-89 (280-95393-56), RC4-SC-91 (280-95393-58), RC4-SC-92 (280-95393-59), RC4-SC-93 (280-95393-60), RC4-SC-92MS (280-95393-59MS), and RC4-SC-92MSD (280-95393-59MSD). Evidence of matrix interference is present; therefore, corrective action was

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-3

Job ID: 280-95393-3 (Continued)

Laboratory: TestAmerica Denver (Continued)

not performed. 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. The surrogate recoveries are calculated from diluted samples and in some cases are diluted below reportable limits.

o-Terphenyl failed the surrogate recovery criteria high for MB 280-367989/1-A. It was most likely was spiked twice with the surrogate during the preparation; therefore, corrective action was not performed.

DRO (C10-C28) failed the recovery criteria high for the MS/MSD of sample RC4-SC-92 (280-95393-59). DRO (C10-C28) exceeded the RPD limit. The associated LCS was in control; therefore, corrective action was not performed.

Samples RC4-SC-81 (280-95393-47)[10X], RC4-SC-83 (280-95393-49)[2X], RC4-SC-84 (280-95393-50)[2X], RC4-SC-86 (280-95393-52)[5X], RC4-SC-87 (280-95393-53)[5X], RC4-SC-DUP4 (280-95393-54)[5X], RC4-SC-89 (280-95393-56)[10X] and RC4-SC-93 (280-95393-60)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The following samples could not be thoroughly homogenized before sub-sampling was performed due to sample matrix: RC4-SC-DUP2 (280-95393-41), RC4-SC-77 (280-95393-42), RC4-SC-78 (280-95393-43), RC4-SC-79 (280-95393-44), RC4-SC-80 (280-95393-45), RC4-SC-DUP3 (280-95393-46), RC4-SC-82 (280-95393-48), RC4-SC-83 (280-95393-49), RC4-SC-84 (280-95393-50), RC4-SC-85 (280-95393-51), RC4-SC-86 (280-95393-52), RC4-SC-87 (280-95393-53), RC4-SC-DUP4 (280-95393-54), RC4-SC-88 (280-95393-55), RC4-SC-89 (280-95393-56), RC4-SC-90 (280-95393-57), RC4-SC-91 (280-95393-58), RC4-SC-92 (280-95393-59), RC4-SC-92 (280-95393-59[MS]) and RC4-SC-92 (280-95393-59[MSD]). The samples were clay.

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

PERCENT SOLIDS

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

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-3

Client Sample ID: RC4-SC-D3 8L

ba2 Sample ID: L09-51M5M4A

Qnalyte	Ref ult	Uualifier	Rb	s Db	3 nit	Dil hac	D	s etdoP	8rep Type
GRO (C6-C10)	97		7.1	1.9	mg/Kg	5	✖	8015C	Total/NA
DRO (C10-C28)	780		4.8	0.81	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-66

ba2 Sample ID: L09-51M5M4L

Qnalyte	Ref ult	Uualifier	Rb	s Db	3 nit	Dil hac	D	s etdoP	8rep Type
GRO (C6-C10)	20		1.5	0.40	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	94		5.2	0.88	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-60

ba2 Sample ID: L09-51M5M4M

Qnalyte	Ref ult	Uualifier	Rb	s Db	3 nit	Dil hac	D	s etdoP	8rep Type
GRO (C6-C10)	6.3		1.5	0.40	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	80		5.0	0.84	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-65

ba2 Sample ID: L09-51M5M44

Qnalyte	Ref ult	Uualifier	Rb	s Db	3 nit	Dil hac	D	s etdoP	8rep Type
GRO (C6-C10)	490		29	7.8	mg/Kg	20	✖	8015C	Total/NA
DRO (C10-C28)	800		4.8	0.82	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-09

ba2 Sample ID: L09-51M5M41

Qnalyte	Ref ult	Uualifier	Rb	s Db	3 nit	Dil hac	D	s etdoP	8rep Type
GRO (C6-C10)	0.92	J	1.6	0.43	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	45		5.2	0.89	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-D3 8M

ba2 Sample ID: L09-51M5M47

Qnalyte	Ref ult	Uualifier	Rb	s Db	3 nit	Dil hac	D	s etdoP	8rep Type
GRO (C6-C10)	0.50	J	1.6	0.42	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	170		5.3	0.89	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-0A

ba2 Sample ID: L09-51M5M46

Qnalyte	Ref ult	Uualifier	Rb	s Db	3 nit	Dil hac	D	s etdoP	8rep Type
GRO (C6-C10)	650		29	7.8	mg/Kg	20	✖	8015C	Total/NA
DRO (C10-C28)	8900		44	7.5	mg/Kg	10	✖	8015C	Total/NA

Client Sample ID: RC4-SC-0L

ba2 Sample ID: L09-51M5M40

Qnalyte	Ref ult	Uualifier	Rb	s Db	3 nit	Dil hac	D	s etdoP	8rep Type
GRO (C6-C10)	4.7		1.5	0.40	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	840		4.7	0.80	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-0M

ba2 Sample ID: L09-51M5M45

Qnalyte	Ref ult	Uualifier	Rb	s Db	3 nit	Dil hac	D	s etdoP	8rep Type
GRO (C6-C10)	16		1.6	0.42	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	1800	B	9.9	1.7	mg/Kg	2	✖	8015C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-3

Client Sample ID: RC4-SC-04

ba2 Sample ID: L09-51M5M-19

Qnalyte	Ref ult	Uualifier	Rb	s Db	3 nit	Dil hac	D	s etdoP	8rep Type
GRO (C6-C10)	14		1.3	0.36	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	1800	B	9.2	1.6	mg/Kg	2	✖	8015C	Total/NA

Client Sample ID: RC4-SC-01

ba2 Sample ID: L09-51M5M-1A

Qnalyte	Ref ult	Uualifier	Rb	s Db	3 nit	Dil hac	D	s etdoP	8rep Type
GRO (C6-C10)	3.3		1.5	0.40	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	450	B	4.7	0.79	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-07

ba2 Sample ID: L09-51M5M-1L

Qnalyte	Ref ult	Uualifier	Rb	s Db	3 nit	Dil hac	D	s etdoP	8rep Type
GRO (C6-C10)	89		7.2	1.9	mg/Kg	5	✖	8015C	Total/NA
DRO (C10-C28)	2700	B	24	4.0	mg/Kg	5	✖	8015C	Total/NA

Client Sample ID: RC4-SC-06

ba2 Sample ID: L09-51M5M-1M

Qnalyte	Ref ult	Uualifier	Rb	s Db	3 nit	Dil hac	D	s etdoP	8rep Type
GRO (C6-C10)	32		1.4	0.37	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	2600	B	23	3.9	mg/Kg	5	✖	8015C	Total/NA

Client Sample ID: RC4-SC-D3 84

ba2 Sample ID: L09-51M5M-14

Qnalyte	Ref ult	Uualifier	Rb	s Db	3 nit	Dil hac	D	s etdoP	8rep Type
GRO (C6-C10)	34		1.5	0.39	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	3100	B	22	3.8	mg/Kg	5	✖	8015C	Total/NA

Client Sample ID: RC4-SC-00

ba2 Sample ID: L09-51M5M-11

Qnalyte	Ref ult	Uualifier	Rb	s Db	3 nit	Dil hac	D	s etdoP	8rep Type
GRO (C6-C10)	450		28	7.7	mg/Kg	20	✖	8015C	Total/NA
DRO (C10-C28)	1200	B	4.8	0.81	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-05

ba2 Sample ID: L09-51M5M-17

Qnalyte	Ref ult	Uualifier	Rb	s Db	3 nit	Dil hac	D	s etdoP	8rep Type
GRO (C6-C10)	91		6.8	1.9	mg/Kg	5	✖	8015C	Total/NA
DRO (C10-C28)	6100	B	45	7.6	mg/Kg	10	✖	8015C	Total/NA

Client Sample ID: RC4-SC-59

ba2 Sample ID: L09-51M5M-16

Qnalyte	Ref ult	Uualifier	Rb	s Db	3 nit	Dil hac	D	s etdoP	8rep Type
GRO (C6-C10)	400		28	7.7	mg/Kg	20	✖	8015C	Total/NA
DRO (C10-C28)	700	B	4.3	0.74	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-5A

ba2 Sample ID: L09-51M5M-10

Qnalyte	Ref ult	Uualifier	Rb	s Db	3 nit	Dil hac	D	s etdoP	8rep Type
GRO (C6-C10)	120		7.2	1.9	mg/Kg	5	✖	8015C	Total/NA
DRO (C10-C28)	1100	B	4.8	0.82	mg/Kg	1	✖	8015C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-3

Client Sample ID: RC4-SC-5L

ba2 Sample ID: L09-51M5M-15

Qnalyte	Ref ult	Uualifier	Rb	s Db	3 nit	Dil hac	D s etdoP	8rep Type
GRO (C6-C10)	32	F2	1.5	0.41	mg/Kg	1	✱ 8015C	Total/NA
DRO (C10-C28)	1100	F2 B	4.5	0.76	mg/Kg	1	✱ 8015C	Total/NA

Client Sample ID: RC4-SC-5M

ba2 Sample ID: L09-51M5M-79

Qnalyte	Ref ult	Uualifier	Rb	s Db	3 nit	Dil hac	D s etdoP	8rep Type
GRO (C6-C10)	210		13	3.6	mg/Kg	10	✱ 8015C	Total/NA
DRO (C10-C28)	5400	B	23	3.8	mg/Kg	5	✱ 8015C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Method Summary

606 t: n tal tec 6 ol sS il u 6 orgp
. ro Ectj nite: n tal tec 6 / V - Xal ue 6 ,

TestAmerica Job ID: 280-94797-7

Method	Method Description	Protocol	Laboratory
80546	Nol haCuel ated , rual ics Ssil u G6jFID -Modified (Gasol e Xal ue , rual ics)	nO 8W	TAL DEN
80546	Nol haCuel ated , rual ics Ssil u G6jFID -Modified (Diesel Xal ue , rual ics)	nO 8W	TAL DEN
MoistSre	. ercel t MoistSre	E. A	TAL DEN

Protocol References:

E. A = " n El virol mel taC ro tectiol Auel cR

nO 8W = Test Methods For EvaSatil u noC O astey. hRicaC hemicaCMethodsU Third Editio l yNovember 5981 Al d Its " gdatesp

Laboratory References:

TAL DEN = TestAmerica Del veryW44 Yarrow ntreetyArvaday6 , 80002yTEL (707)371-0500

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-95393-14	RC1-SC-Dd P2	Soli7	03/30/46 43:45	03/34/46 4U:55
280-95393-12	RC1-SC-66	Soli7	03/30/46 43:20	03/34/46 4U:55
280-95393-13	RC1-SC-68	Soli7	03/30/46 43:25	03/34/46 4U:55
280-95393-11	RC1-SC-69	Soli7	03/30/46 43:30	03/34/46 4U:55
280-95393-15	RC1-SC-80	Soli7	03/30/46 43:35	03/34/46 4U:55
280-95393-1U	RC1-SC-Dd P3	Soli7	03/30/46 43:35	03/34/46 4U:55
280-95393-16	RC1-SC-84	Soli7	03/30/46 41:50	03/34/46 4U:55
280-95393-18	RC1-SC-82	Soli7	03/30/46 41:55	03/34/46 4U:55
280-95393-19	RC1-SC-83	Soli7	03/30/46 45:00	03/34/46 4U:55
280-95393-50	RC1-SC-81	Soli7	03/30/46 45:05	03/34/46 4U:55
280-95393-54	RC1-SC-85	Soli7	03/30/46 45:40	03/34/46 4U:55
280-95393-52	RC1-SC-8U	Soli7	03/30/46 45:45	03/34/46 4U:55
280-95393-53	RC1-SC-86	Soli7	03/30/46 45:20	03/34/46 4U:55
280-95393-51	RC1-SC-Dd P1	Soli7	03/30/46 45:20	03/34/46 4U:55
280-95393-55	RC1-SC-88	Soli7	03/30/46 45:25	03/34/46 4U:55
280-95393-5U	RC1-SC-89	Soli7	03/30/46 45:30	03/34/46 4U:55
280-95393-56	RC1-SC-90	Soli7	03/30/46 45:35	03/34/46 4U:55
280-95393-58	RC1-SC-94	Soli7	03/30/46 45:10	03/34/46 4U:55
280-95393-59	RC1-SC-92	Soli7	03/30/46 45:15	03/34/46 4U:55
280-95393-U0	RC1-SC-93	Soli7	03/30/46 45:50	03/34/46 4U:55

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-3

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-SC-DUP2

Date Collected: 03/30/17 13:15

Date Received: 03/31/17 16:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	97		7.1	1.9	mg/Kg	☼	04/04/17 13:56	04/07/17 00:06	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	114	9	DD- 14				X72K721D31 0 :	X72KD21D3XX0 :	1

Lab Sample ID: 280-95393-41

Matrix: Solid

Percent Solids: 83.3

Client Sample ID: RC4-SC-77

Date Collected: 03/30/17 13:20

Date Received: 03/31/17 16:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	20		1.5	0.40	mg/Kg	☼	04/04/17 13:56	04/07/17 00:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	58		DD- 14				X72K721D31 0 :	X72KD21D3XX0 1	1

Lab Sample ID: 280-95393-42

Matrix: Solid

Percent Solids: 77.2

Client Sample ID: RC4-SC-78

Date Collected: 03/30/17 13:25

Date Received: 03/31/17 16:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	6.3		1.5	0.40	mg/Kg	☼	04/04/17 13:56	04/07/17 00:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	D7	6	DD- 14				X72K721D31 0 :	X72KD21D3XX0 :	1

Lab Sample ID: 280-95393-43

Matrix: Solid

Percent Solids: 79.2

Client Sample ID: RC4-SC-79

Date Collected: 03/30/17 13:30

Date Received: 03/31/17 16:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	490		29	7.8	mg/Kg	☼	04/04/17 13:56	04/07/17 01:21	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	/ X5	9.36	DD- 14				X72K721D31 0 :	X72KD21D3X1041	4X

Lab Sample ID: 280-95393-44

Matrix: Solid

Percent Solids: 82.0

Client Sample ID: RC4-SC-80

Date Collected: 03/30/17 13:35

Date Received: 03/31/17 16:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	0.92	J	1.6	0.43	mg/Kg	☼	04/04/17 13:56	04/07/17 01:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	D7	6	DD- 14				X72K721D31 0 :	X72KD21D3X107 :	1

Lab Sample ID: 280-95393-45

Matrix: Solid

Percent Solids: 74.3

Client Sample ID: RC4-SC-DUP3

Date Collected: 03/30/17 13:35

Date Received: 03/31/17 16:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	0.50	J	1.6	0.42	mg/Kg	☼	04/04/17 13:56	04/07/17 02:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	D7	6	DD- 14				X72K721D31 0 :	X72KD21D3X401 :	1

Lab Sample ID: 280-95393-46

Matrix: Solid

Percent Solids: 76.0

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-3

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-SC-81
Date Collected: 03/30/17 14:50
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-47
Matrix: Solid
Percent Solids: 87.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	650		29	7.8	mg/Kg	☼	04/04/17 13:56	04/07/17 02:35	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	D	9.36	DD- 14				X72K721D31 0:	X72KD21D3K40 /	4X

Client Sample ID: RC4-SC-82
Date Collected: 03/30/17 14:55
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-48
Matrix: Solid
Percent Solids: 83.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	4.7		1.5	0.40	mg/Kg	☼	04/04/17 13:56	04/07/17 03:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	5		DD- 14				X72K721D31 0:	X72KD21D3K 0X	1

Client Sample ID: RC4-SC-83
Date Collected: 03/30/17 15:00
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-49
Matrix: Solid
Percent Solids: 79.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	16		1.6	0.42	mg/Kg	☼	04/04/17 13:56	04/07/17 03:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	D7	6	DD- 14				X72K721D31 0:	X72KD21D3K 04/	1

Client Sample ID: RC4-SC-84
Date Collected: 03/30/17 15:05
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-50
Matrix: Solid
Percent Solids: 85.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	14		1.3	0.36	mg/Kg	☼	04/04/17 13:56	04/07/17 04:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	54		DD- 14				X72K721D31 0:	X72KD21D3K701/	1

Client Sample ID: RC4-SC-85
Date Collected: 03/30/17 15:10
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-51
Matrix: Solid
Percent Solids: 81.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	3.3		1.5	0.40	mg/Kg	☼	04/04/17 13:56	04/07/17 04:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	5X		DD- 14				X72K721D31 0:	X72KD21D3K70X	1

Client Sample ID: RC4-SC-86
Date Collected: 03/30/17 15:15
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-52
Matrix: Solid
Percent Solids: 84.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	89		7.2	1.9	mg/Kg	☼	04/04/17 13:56	04/07/17 05:05	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	8/	9	DD- 14				X72K721D31 0:	X72KD21D3K/ 0X	/

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-3

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-SC-87
Date Collected: 03/30/17 15:20
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-53
Matrix: Solid
Percent Solids: 86.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	32		1.4	0.37	mg/Kg	☼	04/04/17 13:56	04/11/17 12:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	81		DD- 14				X72X721D31 0:	X721121D31401:	1

Client Sample ID: RC4-SC-DUP4
Date Collected: 03/30/17 15:20
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-54
Matrix: Solid
Percent Solids: 86.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	34		1.5	0.39	mg/Kg	☼	04/04/17 13:56	04/11/17 12:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	8D		DD- 14				X72X721D31 0:	X721121D31401:	1

Client Sample ID: RC4-SC-88
Date Collected: 03/30/17 15:25
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-55
Matrix: Solid
Percent Solids: 81.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	450		28	7.7	mg/Kg	☼	04/04/17 13:56	04/07/17 06:19	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	4X	9.36	DD- 14				X72X721D31 0:	X72XD21D3X: 018	4X

Client Sample ID: RC4-SC-89
Date Collected: 03/30/17 15:30
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-56
Matrix: Solid
Percent Solids: 84.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	91		6.8	1.9	mg/Kg	☼	04/04/17 13:56	04/07/17 06:44	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	11:	9	DD- 14				X72X721D31 0:	X72XD21D3X: 077	/

Client Sample ID: RC4-SC-90
Date Collected: 03/30/17 15:35
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-57
Matrix: Solid
Percent Solids: 83.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	400		28	7.7	mg/Kg	☼	04/04/17 13:56	04/07/17 07:09	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	/ 4/	9.36	DD- 14				X72X721D31 0:	X72XD21D3XD0X8	4X

Client Sample ID: RC4-SC-91
Date Collected: 03/30/17 15:40
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-58
Matrix: Solid
Percent Solids: 82.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	120		7.2	1.9	mg/Kg	☼	04/04/17 13:56	04/07/17 07:34	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	1 4	9.36	DD- 14				X72X721D31 0:	X72XD21D3XD0 7	/

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-3

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-SC-92
Date Collected: 03/30/17 15:45
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-59
Matrix: Solid
Percent Solids: 81.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	32	F2	1.5	0.41	mg/Kg	☼	04/04/17 13:56	04/07/17 07:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	8		DD - 14				X72X721D31 0 :	X72XD21D3XD0 8	1

Client Sample ID: RC4-SC-93
Date Collected: 03/30/17 15:50
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-60
Matrix: Solid
Percent Solids: 86.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	210		13	3.6	mg/Kg	☼	04/05/17 11:26	04/07/17 14:30	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	117	9	DD - 14				X72X/ 21D31104:	X72XD21D3170 X	1X

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-SC-DUP2
Date Collected: 03/30/17 13:15
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-41
Matrix: Solid
Percent Solids: 83.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	780		4.8	0.81	mg/Kg	☼	04/04/17 12:45	04/05/17 23:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	: D		78 - 11/				X72X721D31407/	X72X/ 21D3# 0 D	1

Client Sample ID: RC4-SC-77
Date Collected: 03/30/17 13:20
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-42
Matrix: Solid
Percent Solids: 77.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	94		5.2	0.88	mg/Kg	☼	04/04/17 12:45	04/06/17 00:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	84		78 - 11/				X72X721D31407/	X72X: 21D3XX0X1	1

Client Sample ID: RC4-SC-78
Date Collected: 03/30/17 13:25
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-43
Matrix: Solid
Percent Solids: 79.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	80		5.0	0.84	mg/Kg	☼	04/04/17 12:45	04/06/17 00:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	8:		78 - 11/				X72X721D31407/	X72X: 21D3XX0X:	1

Client Sample ID: RC4-SC-79
Date Collected: 03/30/17 13:30
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-44
Matrix: Solid
Percent Solids: 82.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	800		4.8	0.82	mg/Kg	☼	04/04/17 12:45	04/06/17 00:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	/ 8		78 - 11/				X72X721D31407/	X72X: 21D3XX0 X	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-3

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-SC-80
Date Collected: 03/30/17 13:35
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-45
Matrix: Solid
Percent Solids: 74.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	45		5.2	0.89	mg/Kg	☼	04/04/17 12:45	04/06/17 01:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	1X1		78 - 11/				X72X21D31407	X72X: 21D3X101/	1

Client Sample ID: RC4-SC-DUP3
Date Collected: 03/30/17 13:35
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-46
Matrix: Solid
Percent Solids: 76.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	170		5.3	0.89	mg/Kg	☼	04/04/17 12:45	04/06/17 01:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	D		78 - 11/				X72X21D31407	X72X: 21D3X107X	1

Client Sample ID: RC4-SC-81
Date Collected: 03/30/17 14:50
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-47
Matrix: Solid
Percent Solids: 87.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	8900		44	7.5	mg/Kg	☼	04/04/17 12:45	04/06/17 20:49	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	141D	63	78 - 11/				X72X21D31407	X72X: 21D3X1078	1X

Client Sample ID: RC4-SC-82
Date Collected: 03/30/17 14:55
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-48
Matrix: Solid
Percent Solids: 83.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	840		4.7	0.80	mg/Kg	☼	04/04/17 12:45	04/06/17 02:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	75	6	78 - 11/				X72X21D31407	X72X: 21D3X405	1

Client Sample ID: RC4-SC-83
Date Collected: 03/30/17 15:00
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-49
Matrix: Solid
Percent Solids: 79.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	1800	B	9.9	1.7	mg/Kg	☼	04/05/17 09:56	04/10/17 14:31	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	: 4		78 - 11/				X72X: 21D3X80	X721X21D3170 1	4

Client Sample ID: RC4-SC-84
Date Collected: 03/30/17 15:05
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-50
Matrix: Solid
Percent Solids: 85.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	1800	B	9.2	1.6	mg/Kg	☼	04/05/17 09:56	04/10/17 14:59	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	4XX	6	78 - 11/				X72X: 21D3X80	X721X21D3170 8	4

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-3

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-SC-85
Date Collected: 03/30/17 15:10
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-51
Matrix: Solid
Percent Solids: 81.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	450	B	4.7	0.79	mg/Kg	☼	04/05/17 09:56	04/07/17 17:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	104		78 - 11/				X72X21D3X80	X72XD21D31D01	1

Client Sample ID: RC4-SC-86
Date Collected: 03/30/17 15:15
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-52
Matrix: Solid
Percent Solids: 84.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	2700	B	24	4.0	mg/Kg	☼	04/05/17 09:56	04/10/17 15:28	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	117	9.36	78 - 11/				X72X21D3X80	X721X21D31/045	/

Client Sample ID: RC4-SC-87
Date Collected: 03/30/17 15:20
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-53
Matrix: Solid
Percent Solids: 86.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	2600	B	23	3.9	mg/Kg	☼	04/05/17 09:56	04/10/17 15:57	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	407	9.36	78 - 11/				X72X21D3X80	X721X21D31/045	/

Client Sample ID: RC4-SC-DUP4
Date Collected: 03/30/17 15:20
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-54
Matrix: Solid
Percent Solids: 86.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	3100	B	22	3.8	mg/Kg	☼	04/05/17 09:56	04/10/17 16:25	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	175	9.36	78 - 11/				X72X21D3X80	X721X21D31/045	/

Client Sample ID: RC4-SC-88
Date Collected: 03/30/17 15:25
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-55
Matrix: Solid
Percent Solids: 81.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	1200	B	4.8	0.81	mg/Kg	☼	04/05/17 09:56	04/07/17 20:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	178	6	78 - 11/				X72X21D3X80	X72XD21D31X07D	1

Client Sample ID: RC4-SC-89
Date Collected: 03/30/17 15:30
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-56
Matrix: Solid
Percent Solids: 84.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	6100	B	45	7.6	mg/Kg	☼	04/05/17 09:56	04/14/17 18:11	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	639		78 - 11/				X72X21D3X80	X721721D315011	1X

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-3

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-SC-90
Date Collected: 03/30/17 15:35
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-57
Matrix: Solid
Percent Solids: 83.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	700	B	4.3	0.74	mg/Kg	☼	04/05/17 09:56	04/07/17 21:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl(Surr)	81		78 - 11/				X72X/ 21D3X80	X72XD21D3107	1

Client Sample ID: RC4-SC-91
Date Collected: 03/30/17 15:40
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-58
Matrix: Solid
Percent Solids: 82.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	1100	B	4.8	0.82	mg/Kg	☼	04/05/17 09:56	04/07/17 22:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl(Surr)	1/	6	78 - 11/				X72X/ 21D3X80	X72XD21D31401	1

Client Sample ID: RC4-SC-92
Date Collected: 03/30/17 15:45
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-59
Matrix: Solid
Percent Solids: 81.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	1100	F2 B	4.5	0.76	mg/Kg	☼	04/05/17 09:56	04/07/17 22:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl(Surr)	1/ 7	6	78 - 11/				X72X/ 21D3X80	X72XD21D314074	1

Client Sample ID: RC4-SC-93
Date Collected: 03/30/17 15:50
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-60
Matrix: Solid
Percent Solids: 86.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	5400	B	23	3.8	mg/Kg	☼	04/05/17 09:56	04/10/17 18:19	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl(Surr)	108	936	78 - 11/				X72X/ 21D3X80	X721X21D315018	/

General Chemistry

Client Sample ID: RC4-SC-DUP2
Date Collected: 03/30/17 13:15
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-41
Matrix: Solid
Percent Solids: 83.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.7		0.1	0.1	%	-		04/01/17 16:46	1
Percent Solids	83.3		0.1	0.1	%	-		04/01/17 16:46	1

Client Sample ID: RC4-SC-77
Date Collected: 03/30/17 13:20
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-42
Matrix: Solid
Percent Solids: 77.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22.8		0.1	0.1	%	-		04/01/17 16:46	1
Percent Solids	77.2		0.1	0.1	%	-		04/01/17 16:46	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-3

General Chemistry

Client Sample ID: RC4-SC-78
Date Collected: 03/30/17 13:25
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-43
Matrix: Solid
Percent Solids: 79.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.8		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	79.2		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-79
Date Collected: 03/30/17 13:30
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-44
Matrix: Solid
Percent Solids: 82.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.0		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	82.0		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-80
Date Collected: 03/30/17 13:35
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-45
Matrix: Solid
Percent Solids: 74.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	25.7		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	74.3		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-DUP3
Date Collected: 03/30/17 13:35
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-46
Matrix: Solid
Percent Solids: 76.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24.0		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	76.0		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-81
Date Collected: 03/30/17 14:50
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-47
Matrix: Solid
Percent Solids: 87.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12.2		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	87.8		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-82
Date Collected: 03/30/17 14:55
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-48
Matrix: Solid
Percent Solids: 83.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.6		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	83.4		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-83
Date Collected: 03/30/17 15:00
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-49
Matrix: Solid
Percent Solids: 79.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.2		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	79.8		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-84
Date Collected: 03/30/17 15:05
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-50
Matrix: Solid
Percent Solids: 85.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.0		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	85.0		0.1	0.1	%			04/01/17 16:46	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-3

General Chemistry

Client Sample ID: RC4-SC-85
Date Collected: 03/30/17 15:10
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-51
Matrix: Solid
Percent Solids: 81.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.8		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	81.2		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-86
Date Collected: 03/30/17 15:15
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-52
Matrix: Solid
Percent Solids: 84.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.2		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	84.8		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-87
Date Collected: 03/30/17 15:20
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-53
Matrix: Solid
Percent Solids: 86.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.4		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	86.6		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-DUP4
Date Collected: 03/30/17 15:20
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-54
Matrix: Solid
Percent Solids: 86.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.7		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	86.3		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-88
Date Collected: 03/30/17 15:25
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-55
Matrix: Solid
Percent Solids: 81.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.3		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	81.7		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-89
Date Collected: 03/30/17 15:30
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-56
Matrix: Solid
Percent Solids: 84.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.9		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	84.1		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-90
Date Collected: 03/30/17 15:35
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-57
Matrix: Solid
Percent Solids: 83.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.4		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	83.6		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-91
Date Collected: 03/30/17 15:40
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-58
Matrix: Solid
Percent Solids: 82.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.5		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	82.5		0.1	0.1	%			04/01/17 16:46	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-3

General Chemistry

Client Sample ID: RC4-SC-92
Date Collected: 03/30/17 15:45
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-59

Matrix: Solid

Percent Solids: 81.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.3		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	81.7		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-93
Date Collected: 03/30/17 15:50
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-60

Matrix: Solid

Percent Solids: 86.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.2		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	86.8		0.1	0.1	%			04/01/17 16:46	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-3

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)
Matrix: Solid **Prep Type: Total/NA**

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	TFT1 (77-123)
280-95393-41	RC4-SC-D7 P2	112 D
280-95393-42	RC4-SC-66	89
280-95393-43	RC4-SC-68	64 X
280-95393-44	RC4-SC-69	508 D X
280-95393-45	RC4-SC-80	65 X
280-95393-4M	RC4-SC-D7 P3	6MX
280-95393-46	RC4-SC-81	363 D X
280-95393-48	RC4-SC-82	83
280-95393-49	RC4-SC-83	64 X
280-95393-50	RC4-SC-84	82
280-95393-51	RC4-SC-85	80
280-95393-52	RC4-SC-8M	95 D
280-95393-53	RC4-SC-86	91
280-95393-54	RC4-SC-D7 P4	96
280-95393-55	RC4-SC-88	205 D X
280-95393-5M	RC4-SC-89	11MD
280-95393-56	RC4-SC-90	525 D X
280-95393-58	RC4-SC-91	132 D X
280-95393-59	RC4-SC-92	93
280-95393-59 US	RC4-SC-92	69
280-95393-59 USD	RC4-SC-92	91
280-95393-M0	RC4-SC-93	114 D
LCS 280-3M018/2-A	Lab Control Sample	88
LCS 280-3M160/2-A	Lab Control Sample	93
UB 280-3M018/1-A	Uethod Blank	95
UB 280-3M160/1-A	Uethod Blank	86

Surrogate Legend

TFT = a,a,a-Trifluorotoluene

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)
Matrix: Solid **Prep Type: Total/NA**

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	OTPH1 (49-115)
280-95393-41	RC4-SC-D7 P2	M6
280-95393-42	RC4-SC-66	92
280-95393-43	RC4-SC-68	9M
280-95393-44	RC4-SC-69	59
280-95393-45	RC4-SC-80	101
280-95393-4M	RC4-SC-D7 P3	65
280-95393-46	RC4-SC-81	1216 X D
280-95393-48	RC4-SC-82	48 X
280-95393-49	RC4-SC-83	M2
280-95393-50	RC4-SC-84	200 X
280-95393-51	RC4-SC-85	62
280-95393-52	RC4-SC-8M	150 D X
280-95393-53	RC4-SC-86	264 D X

TestAmerica Denver

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-3

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)
(Continued)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	OTPH1 (49-115)					
280-95393-54	RC4-SC-D7 P4	148 D X					
280-95393-55	RC4-SC-88	149 X					
280-95393-5M	RC4-SC-89	33 X D					
280-95393-56	RC4-SC-90	91					
280-95393-58	RC4-SC-91	153 X					
280-95393-59	RC4-SC-92	154 X					
280-95393-59 US	RC4-SC-92	249 X					
280-95393-59 USD	RC4-SC-92	132 X					
280-95393-M0	RC4-SC-93	169 D X					
LCS 280-3M6989/2-A	Lab Control Sample	111					
LCS 280-3M8129/2-A	Lab Control Sample	83					
UB 280-3M6989/1-A	Uethod Blank	192 X					
UB 280-3M8129/1-A	Uethod Blank	8M					

Surrogate Legend

OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-3

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Lab Sample ID: MB 280-368018/1-9

MatriA: Solid

9 naITsis Batch: 36862y

Client Sample ID: Method Blank

xrep PTpe: Potal/N9

xrep Batch: 368018

9 naITte	MB Result	MB Qualifier	RL	MDL	Unit	D	xrepared	9 naITzed	Dil Fac
GRO (C6-C10)	ND		1.2	0.33	mg/Kg		04/04/17 13:56	04/06/17 22:51	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	84		77 - 123				0/ 5/ 5/ 7:13:64	0/ 5/ 5/ 7:22:61	1

Lab Sample ID: LCS 280-368018/2-9

MatriA: Solid

9 naITsis Batch: 36862y

Client Sample ID: Lab Control Sample

xrep PTpe: Potal/N9

xrep Batch: 368018

9 naITte	Spike 9 dded	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
GRO (C6-C10)	5.50	5.84		mg/Kg		106	85 - 153		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
a,a,a-Trifluorotoluene	99		77 - 123						

Lab Sample ID: 280-45343-54 MS

MatriA: Solid

9 naITsis Batch: 36862y

Client Sample ID: RCy-SC-42

xrep PTpe: Potal/N9

xrep Batch: 368018

9 naITte	Sample Result	Sample Qualifier	Spike 9 dded	MS Result	MS Qualifier	Unit	D	%Rec	Limits		
GRO (C6-C10)	32	F2	6.79	25.0	4	mg/Kg	✱	-104	85 - 153		
Surrogate	MS %Recovery	MS Qualifier	Limits								
a,a,a-Trifluorotoluene	78		77 - 123								

Lab Sample ID: 280-45343-54 MSD

MatriA: Solid

9 naITsis Batch: 36862y

Client Sample ID: RCy-SC-42

xrep PTpe: Potal/N9

xrep Batch: 368018

9 naITte	Sample Result	Sample Qualifier	Spike 9 dded	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RxD	Limit
GRO (C6-C10)	32	F2	6.68	41.2	4 F2	mg/Kg	✱	138	85 - 153	49	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
a,a,a-Trifluorotoluene	81		77 - 123								

Lab Sample ID: MB 280-368170/1-9

MatriA: Solid

9 naITsis Batch: 368y48

Client Sample ID: Method Blank

xrep PTpe: Potal/N9

xrep Batch: 368170

9 naITte	MB Result	MB Qualifier	RL	MDL	Unit	D	xrepared	9 naITzed	Dil Fac
GRO (C6-C10)	ND		1.2	0.33	mg/Kg		04/05/17 11:26	04/07/17 13:39	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	97		77 - 123				0/ 5/ 5/ 7:11:62	0/ 5/ 5/ 7:13:68	1

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-3

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics) (Continued)

Lab Sample ID: LCS 280-368170/2-9

MatriA: Solid

9 nalTsis Batch: 368y48

Client Sample ID: Lab Control Sample

xrep PTpe: Potal/N9

xrep Batch: 368170

9 nalTte	Spike 9 dded	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
GRO (C6-C10)	5.50	6.05		mg/Kg		110	85 - 153
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
a,a,a-Trifluorotoluene	83		77 - 123				

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 280-367484/1-9

MatriA: Solid

9 nalTsis Batch: 368183

Client Sample ID: Method Blank

xrep PTpe: Potal/N9

xrep Batch: 367484

9 nalTte	MB Result	MB Qualifier	RL	MDL	Unit	D	xrepared	9 nalTzed	Dil Fac
DRO (C10-C28)	ND		4.0	0.68	mg/Kg		04/04/17 12:45	04/05/17 16:39	1
Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac			
o-Terphenyl:(Surr)	182	X	/ 8 - 114	0/ 30/ 317:126/ 4	0/ 304317:1 68	1			

Lab Sample ID: LCS 280-367484/2-9

MatriA: Solid

9 nalTsis Batch: 368183

Client Sample ID: Lab Control Sample

xrep PTpe: Potal/N9

xrep Batch: 367484

9 nalTte	Spike 9 dded	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28)	66.7	61.1		mg/Kg		92	53 - 115
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
o-Terphenyl:(Surr)	111		/ 8 - 114				

Lab Sample ID: MB 280-368124/1-9

MatriA: Solid

9 nalTsis Batch: 368506

Client Sample ID: Method Blank

xrep PTpe: Potal/N9

xrep Batch: 368124

9 nalTte	MB Result	MB Qualifier	RL	MDL	Unit	D	xrepared	9 nalTzed	Dil Fac
DRO (C10-C28)	1.24	J	4.0	0.68	mg/Kg		04/05/17 09:56	04/07/17 15:54	1
Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac			
o-Terphenyl:(Surr)	9		/ 8 - 114	0/ 304317:086/	0/ 307317:146/	1			

Lab Sample ID: LCS 280-368124/2-9

MatriA: Solid

9 nalTsis Batch: 368506

Client Sample ID: Lab Control Sample

xrep PTpe: Potal/N9

xrep Batch: 368124

9 nalTte	Spike 9 dded	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28)	66.7	72.3		mg/Kg		108	53 - 115

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-3

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: LCS 280-368124/2-9

MatriA: Solid

9 nalTsis Batch: 368506

Client Sample ID: Lab Control Sample

x rep PTpe: Potal/N9

x rep Batch: 368124

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
<i>o</i> -Terphenyl:(Surr)	93		/ 8 - 114

Lab Sample ID: 280-45343-54 MS

MatriA: Solid

9 nalTsis Batch: 368506

Client Sample ID: RCy-SC-42

x rep PTpe: Potal/N9

x rep Batch: 368124

9 nalTte	Sample Result	Sample Qualifier	Spike 9 dded	MS Result	MS Qualifier	Unit	D	%Rec	Limits		
DRO (C10-C28)	1100	F2 B	77.0	2000	E 4	mg/Kg	☼	1182	56 - 115		
Surrogate	MS %Recovery	MS Qualifier	Limits								
<i>o</i> -Terphenyl:(Surr)	2/ 8	X	/ 8 - 114								

Lab Sample ID: 280-45343-54 MSD

MatriA: Solid

9 nalTsis Batch: 368506

Client Sample ID: RCy-SC-42

x rep PTpe: Potal/N9

x rep Batch: 368124

9 nalTte	Sample Result	Sample Qualifier	Spike 9 dded	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RxD	Limit
DRO (C10-C28)	1100	F2 B	79.5	1080	4 F2	mg/Kg	☼	-15	56 - 115	60	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
<i>o</i> -Terphenyl:(Surr)	132	X	/ 8 - 114								

Method: Moisture - xercent Moisture

Lab Sample ID: 280-45343-57 DU

MatriA: Solid

9 nalTsis Batch: 367642

Client Sample ID: RCy-SC-40

x rep PTpe: Potal/N9

9 nalTte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RxD	Limit
Percent Moisture	16.4		16.2		%		1	20
Percent Solids	83.6		83.8		%		0.2	20

TestAmerica Denver

QC Association Summary

1 of 1 total test results of 100%
 . 1 of 1 total test results of 100%
 . 1 of 1 total test results of 100%

TestAmerica Job ID: 280-95797-7

GC VOA

Prep Batch: 367817

5aL Sample II	Client Sample II	Prep Dype	T atriM	T ethox	Prep Batch
280-95797-d3	X1 d-n1-D4 . 2	Total	no	5075	
280-95797-d2	X1 d-n1-66	Total	no	5075	
280-95797-d7	X1 d-n1-68	Total	no	5075	
280-95797-dd	X1 d-n1-69	Total	no	5075	
280-95797-d5	X1 d-n1-80	Total	no	5075	
280-95797-dM	X1 d-n1-D4 . 7	Total	no	5075	
280-95797-d6	X1 d-n1-83	Total	no	5075	
280-95797-d8	X1 d-n1-82	Total	no	5075	
280-95797-d9	X1 d-n1-87	Total	no	5075	
280-95797-50	X1 d-n1-8d	Total	no	5075	
280-95797-53	X1 d-n1-85	Total	no	5075	
280-95797-52	X1 d-n1-8M	Total	no	5075	
280-95797-57	X1 d-n1-86	Total	no	5075	
280-95797-5d	X1 d-n1-D4 . d	Total	no	5075	
280-95797-55	X1 d-n1-88	Total	no	5075	
280-95797-5M	X1 d-n1-89	Total	no	5075	
280-95797-56	X1 d-n1-90	Total	no	5075	
280-95797-58	X1 d-n1-93	Total	no	5075	
280-95797-59	X1 d-n1-92	Total	no	5075	
B h 280-7M8038j3-A	BetkoOh @ L	Total	no	5075	
v1 n 280-7M8038j2-A	vab 1 ol troQamg@	Total	no	5075	
280-95797-59 B n	X1 d-n1-92	Total	no	5075	
280-95797-59 B nD	X1 d-n1-92	Total	no	5075	

Prep Batch: 3671d8

5aL Sample II	Client Sample II	Prep Dype	T atriM	T ethox	Prep Batch
280-95797-M0	X1 d-n1-97	Total	no	5075	
B h 280-7M8360j3-A	BetkoOh @ L	Total	no	5075	
v1 n 280-7M8360j2-A	vab 1 ol troQamg@	Total	no	5075	

Analysis Batch: 367047

5aL Sample II	Client Sample II	Prep Dype	T atriM	T ethox	Prep Batch
280-95797-M0	X1 d-n1-97	Total	no	80351	7M8360
B h 280-7M8360j3-A	BetkoOh @ L	Total	no	80351	7M8360
v1 n 280-7M8360j2-A	vab 1 ol troQamg@	Total	no	80351	7M8360

Analysis Batch: 367620

5aL Sample II	Client Sample II	Prep Dype	T atriM	T ethox	Prep Batch
280-95797-d3	X1 d-n1-D4 . 2	Total	no	80351	7M8038
280-95797-d2	X1 d-n1-66	Total	no	80351	7M8038
280-95797-d7	X1 d-n1-68	Total	no	80351	7M8038
280-95797-dd	X1 d-n1-69	Total	no	80351	7M8038
280-95797-d5	X1 d-n1-80	Total	no	80351	7M8038
280-95797-dM	X1 d-n1-D4 . 7	Total	no	80351	7M8038
280-95797-d6	X1 d-n1-83	Total	no	80351	7M8038
280-95797-d8	X1 d-n1-82	Total	no	80351	7M8038
280-95797-d9	X1 d-n1-87	Total	no	80351	7M8038
280-95797-50	X1 d-n1-8d	Total	no	80351	7M8038
280-95797-53	X1 d-n1-85	Total	no	80351	7M8038
280-95797-52	X1 d-n1-8M	Total	no	80351	7M8038
280-95797-55	X1 d-n1-88	Total	no	80351	7M8038

TestAmerica Del Uer

QC Association Summary

Cell: n1al tec 1 ol sS01 u 1 orgp
 . roEctjnite: n1al tec 1/ V - Xal ue0y1,

TestAmerica Job ID: 280-95797-7

GC VOA (Continuex)

Analysis Batch: 367620 (Continuex)

5aL Sample II	Client Sample II	Prep Dype	T atriM	T ethox	Prep Batch
280-95797-5M	X1 d-n1-89	TotaQNA	no00	80351	7M8038
280-95797-56	X1 d-n1-90	TotaQNA	no00	80351	7M8038
280-95797-58	X1 d-n1-93	TotaQNA	no00	80351	7M8038
280-95797-59	X1 d-n1-92	TotaQNA	no00	80351	7M8038
B h 280-7M8038j3-A	BetkoOh0al L	TotaQNA	no00	80351	7M8038
v1 n 280-7M8038j2-A	vab 1 ol troQamg0	TotaQNA	no00	80351	7M8038
280-95797-59 B n	X1 d-n1-92	TotaQNA	no00	80351	7M8038
280-95797-59 B nD	X1 d-n1-92	TotaQNA	no00	80351	7M8038

Analysis Batch: 3677d2

5aL Sample II	Client Sample II	Prep Dype	T atriM	T ethox	Prep Batch
280-95797-57	X1 d-n1-86	TotaQNA	no00	80351	7M8038
280-95797-5d	X1 d-n1-D4 . d	TotaQNA	no00	80351	7M8038

GC Semi VOA

Prep Batch: 36d474

5aL Sample II	Client Sample II	Prep Dype	T atriM	T ethox	Prep Batch
280-95797-d3	X1 d-n1-D4 . 2	TotaQNA	no00	75dM	
280-95797-d2	X1 d-n1-66	TotaQNA	no00	75dM	
280-95797-d7	X1 d-n1-68	TotaQNA	no00	75dM	
280-95797-dd	X1 d-n1-69	TotaQNA	no00	75dM	
280-95797-d5	X1 d-n1-80	TotaQNA	no00	75dM	
280-95797-dM	X1 d-n1-D4 . 7	TotaQNA	no00	75dM	
280-95797-d6	X1 d-n1-83	TotaQNA	no00	75dM	
280-95797-d8	X1 d-n1-82	TotaQNA	no00	75dM	
B h 280-7M6989j3-A	BetkoOh0al L	TotaQNA	no00	75dM	
v1 n 280-7M6989j2-A	vab 1 ol troQamg0	TotaQNA	no00	75dM	

Prep Batch: 367124

5aL Sample II	Client Sample II	Prep Dype	T atriM	T ethox	Prep Batch
280-95797-d9	X1 d-n1-87	TotaQNA	no00	75dM	
280-95797-50	X1 d-n1-8d	TotaQNA	no00	75dM	
280-95797-53	X1 d-n1-85	TotaQNA	no00	75dM	
280-95797-52	X1 d-n1-8M	TotaQNA	no00	75dM	
280-95797-57	X1 d-n1-86	TotaQNA	no00	75dM	
280-95797-5d	X1 d-n1-D4 . d	TotaQNA	no00	75dM	
280-95797-55	X1 d-n1-88	TotaQNA	no00	75dM	
280-95797-5M	X1 d-n1-89	TotaQNA	no00	75dM	
280-95797-56	X1 d-n1-90	TotaQNA	no00	75dM	
280-95797-58	X1 d-n1-93	TotaQNA	no00	75dM	
280-95797-59	X1 d-n1-92	TotaQNA	no00	75dM	
280-95797-M0	X1 d-n1-97	TotaQNA	no00	75dM	
B h 280-7M8329j3-A	BetkoOh0al L	TotaQNA	no00	75dM	
v1 n 280-7M8329j2-A	vab 1 ol troQamg0	TotaQNA	no00	75dM	
280-95797-59 B n	X1 d-n1-92	TotaQNA	no00	75dM	
280-95797-59 B nD	X1 d-n1-92	TotaQNA	no00	75dM	

TestAmerica Del Ubr

QC Association Summary

1 of 1 total test of 1 of 1 orgp
 . relectjnite: nta tec 1 / V - Xal uee 1,

TestAmerica Job ID: 280-95797-7

GC Semi VOA (Continuex)

Analysis Batch: 367173

5aL Sample II	Client Sample II	Prep Dype	T atriM	T ethox	Prep Batch
280-95797-d3	X1 d-n1-D4 . 2	TotaQNA	no	80351	7M6989
280-95797-d2	X1 d-n1-66	TotaQNA	no	80351	7M6989
280-95797-d7	X1 d-n1-68	TotaQNA	no	80351	7M6989
280-95797-dd	X1 d-n1-69	TotaQNA	no	80351	7M6989
280-95797-d5	X1 d-n1-80	TotaQNA	no	80351	7M6989
280-95797-dM	X1 d-n1-D4 . 7	TotaQNA	no	80351	7M6989
280-95797-d8	X1 d-n1-82	TotaQNA	no	80351	7M6989
B h 280-7M6989j3-A	BetkoOh@L	TotaQNA	no	80351	7M6989
v1 n 280-7M6989j2-A	vab 1 ol troChamg@	TotaQNA	no	80351	7M6989

Analysis Batch: 367307

5aL Sample II	Client Sample II	Prep Dype	T atriM	T ethox	Prep Batch
280-95797-d6	X1 d-n1-83	TotaQNA	no	80351	7M6989

Analysis Batch: 367986

5aL Sample II	Client Sample II	Prep Dype	T atriM	T ethox	Prep Batch
280-95797-53	X1 d-n1-85	TotaQNA	no	80351	7M8329
280-95797-55	X1 d-n1-88	TotaQNA	no	80351	7M8329
280-95797-56	X1 d-n1-90	TotaQNA	no	80351	7M8329
280-95797-58	X1 d-n1-93	TotaQNA	no	80351	7M8329
280-95797-59	X1 d-n1-92	TotaQNA	no	80351	7M8329
B h 280-7M8329j3-A	BetkoOh@L	TotaQNA	no	80351	7M8329
v1 n 280-7M8329j2-A	vab 1 ol troChamg@	TotaQNA	no	80351	7M8329
280-95797-59 B n	X1 d-n1-92	TotaQNA	no	80351	7M8329
280-95797-59 B nD	X1 d-n1-92	TotaQNA	no	80351	7M8329

Analysis Batch: 367638

5aL Sample II	Client Sample II	Prep Dype	T atriM	T ethox	Prep Batch
280-95797-d9	X1 d-n1-87	TotaQNA	no	80351	7M8329
280-95797-50	X1 d-n1-8d	TotaQNA	no	80351	7M8329
280-95797-52	X1 d-n1-8M	TotaQNA	no	80351	7M8329
280-95797-57	X1 d-n1-86	TotaQNA	no	80351	7M8329
280-95797-5d	X1 d-n1-D4 . d	TotaQNA	no	80351	7M8329
280-95797-M0	X1 d-n1-97	TotaQNA	no	80351	7M8329

Analysis Batch: 364090

5aL Sample II	Client Sample II	Prep Dype	T atriM	T ethox	Prep Batch
280-95797-5M	X1 d-n1-89	TotaQNA	no	80351	7M8329

GenerabChemistry

Analysis Batch: 36d642

5aL Sample II	Client Sample II	Prep Dype	T atriM	T ethox	Prep Batch
280-95797-d3	X1 d-n1-D4 . 2	TotaQNA	no	B oistSre	
280-95797-d2	X1 d-n1-66	TotaQNA	no	B oistSre	
280-95797-d7	X1 d-n1-68	TotaQNA	no	B oistSre	
280-95797-dd	X1 d-n1-69	TotaQNA	no	B oistSre	
280-95797-d5	X1 d-n1-80	TotaQNA	no	B oistSre	
280-95797-dM	X1 d-n1-D4 . 7	TotaQNA	no	B oistSre	
280-95797-d6	X1 d-n1-83	TotaQNA	no	B oistSre	

TestAmerica Del Ubr

QC Association Summary

1 of 1: nta1 tec 1 ol sS01 u 1 orgp
 . roEctjnite: nta1 tec 1 / V - Xal ue0y1 ,

TestAmerica Job ID: 280-95797-7

GenerabChemistry (Continuex)

Analysis Batch: 36d642 (Continuex)

5aL Sample II	Client Sample II	Prep Dype	T atriM	T ethox	Prep Batch
280-95797-d8	X1 d-n1 -82	TotaQNA	no00	BoistSre	
280-95797-d9	X1 d-n1 -87	TotaQNA	no00	BoistSre	
280-95797-50	X1 d-n1 -8d	TotaQNA	no00	BoistSre	
280-95797-53	X1 d-n1 -85	TotaQNA	no00	BoistSre	
280-95797-52	X1 d-n1 -8M	TotaQNA	no00	BoistSre	
280-95797-57	X1 d-n1 -86	TotaQNA	no00	BoistSre	
280-95797-5d	X1 d-n1 -D4 . d	TotaQNA	no00	BoistSre	
280-95797-55	X1 d-n1 -88	TotaQNA	no00	BoistSre	
280-95797-5M	X1 d-n1 -89	TotaQNA	no00	BoistSre	
280-95797-56	X1 d-n1 -90	TotaQNA	no00	BoistSre	
280-95797-58	X1 d-n1 -93	TotaQNA	no00	BoistSre	
280-95797-59	X1 d-n1 -92	TotaQNA	no00	BoistSre	
280-95797-M0	X1 d-n1 -97	TotaQNA	no00	BoistSre	
280-95797-56 D4	X1 d-n1 -90	TotaQNA	no00	BoistSre	

Lab Chronicle

Client: Stantec Consulting Corp.
 Project Site: Stantec C/ V - XangelRyC,

TestAmerica Job ID: 280-94797-7

Client Sample ID: RC4-SC-D5 82

Lab Sample ID: 209-31MBM4x

Date Collected: 9MMX6 xMx1

d atri/ : Soli7

Date Received: 9MMX6 xy:11

8 rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8 repare7 or s nalPFe7	s nalPut	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-D5 82

Lab Sample ID: 209-31MBM4x

Date Collected: 9MMX6 xMx1

d atri/ : Soli7

Date Received: 9MMX6 xy:11

8 percent Soli7u: 0MM

8 rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8 repare7 or s nalPFe7	s nalPut	Lab
TotaljWA	6rep	4074			4.03 g	4 mE	7L8058	03j03j51 57:4L	MDM	TAE DNW
TotaljWA	AnalRsis	8054C		4	0.5 mE	4 mE	7L8L23	03j01j51 00:0L	MDM	TAE DNW
TotaljWA	6rep	743L			70.2 g	5 mE	7L1989	03j03j51 52:34	JXA	TAE DNW
TotaljWA	AnalRsis	8054C		5			7L8587	03j04j51 27:71	TNO	TAE DNW

Client Sample ID: RC4-SC-66

Lab Sample ID: 209-31MBM42

Date Collected: 9MMX6 xM29

d atri/ : Soli7

Date Received: 9MMX6 xy:11

8 rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8 repare7 or s nalPFe7	s nalPut	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-66

Lab Sample ID: 209-31MBM42

Date Collected: 9MMX6 xM29

d atri/ : Soli7

Date Received: 9MMX6 xy:11

8 percent Soli7u: 66L2

8 rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8 repare7 or s nalPFe7	s nalPut	Lab
TotaljWA	6rep	4074			4.27 g	4 mE	7L8058	03j03j51 57:4L	MDM	TAE DNW
TotaljWA	AnalRsis	8054C		5	0.5 mE	4 mE	7L8L23	03j01j51 00:75	MDM	TAE DNW
TotaljWA	6rep	743L			70.5 g	5 mE	7L1989	03j03j51 52:34	JXA	TAE DNW
TotaljWA	AnalRsis	8054C		5			7L8587	03j0Lj51 00:05	TNO	TAE DNW

Client Sample ID: RC4-SC-60

Lab Sample ID: 209-31MBM4M

Date Collected: 9MMX6 xM21

d atri/ : Soli7

Date Received: 9MMX6 xy:11

8 rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8 repare7 or s nalPFe7	s nalPut	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-60

Lab Sample ID: 209-31MBM4M

Date Collected: 9MMX6 xM21

d atri/ : Soli7

Date Received: 9MMX6 xy:11

8 percent Soli7u: 63L2

8 rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8 repare7 or s nalPFe7	s nalPut	Lab
TotaljWA	6rep	4074			4.55 g	4 mE	7L8058	03j03j51 57:4L	MDM	TAE DNW

TestAmerica DenKer

Lab Chronicle

Client: Stantec Consulting Corp.
6roectjSite: Stantec C/ V - XangelRyC,

TestAmerica Job ID: 280-94797-7

Client Sample ID: RC4-SC-60

Lab Sample ID: 209-31MBM4M

Date Collecte7: 9MM0x6 xM21

d atri/ : Soli7

Date ReceiTe7: 9MMkx6 xy:11

8ercent Soli7u: 63L2

8rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8repare7 or s nalPF7	s nalPut	Lab
TotaljWA	AnalRsis	8054C		5	0.5 mE	4 mE	7L8L23	03j01j51 00:4L	MDM	TAE DNW
TotaljWA	6rep	743L			70.4 g	5 mE	7L1989	03j03j51 52:34	JXA	TAE DNW
TotaljWA	AnalRsis	8054C		5			7L8587	03j0Lj51 00:2L	TNO	TAE DNW

Client Sample ID: RC4-SC-63

Lab Sample ID: 209-31MBM44

Date Collecte7: 9MM0x6 xMM0

d atri/ : Soli7

Date ReceiTe7: 9MMkx6 xy:11

8rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8repare7 or s nalPF7	s nalPut	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-63

Lab Sample ID: 209-31MBM44

Date Collecte7: 9MM0x6 xMM0

d atri/ : Soli7

Date ReceiTe7: 9MMkx6 xy:11

8ercent Soli7u: 02L9

8rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8repare7 or s nalPF7	s nalPut	Lab
TotaljWA	6rep	4074			4.08 g	4 mE	7L8058	03j03j51 57:4L	MDM	TAE DNW
TotaljWA	AnalRsis	8054C		20	0.5 mE	4 mE	7L8L23	03j01j51 05:25	MDM	TAE DNW
TotaljWA	6rep	743L			70.7 g	5 mE	7L1989	03j03j51 52:34	JXA	TAE DNW
TotaljWA	AnalRsis	8054C		5			7L8587	03j0Lj51 00:40	TNO	TAE DNW

Client Sample ID: RC4-SC-09

Lab Sample ID: 209-31MBM41

Date Collecte7: 9MM0x6 xMMI

d atri/ : Soli7

Date ReceiTe7: 9MMkx6 xy:11

8rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8repare7 or s nalPF7	s nalPut	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-09

Lab Sample ID: 209-31MBM41

Date Collecte7: 9MM0x6 xMMI

d atri/ : Soli7

Date ReceiTe7: 9MMkx6 xy:11

8ercent Soli7u: 64UM

8rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8repare7 or s nalPF7	s nalPut	Lab
TotaljWA	6rep	4074			4.55 g	4 mE	7L8058	03j03j51 57:4L	MDM	TAE DNW
TotaljWA	AnalRsis	8054C		5	0.5 mE	4 mE	7L8L23	03j01j51 05:3L	MDM	TAE DNW
TotaljWA	6rep	743L			70.8 g	5 mE	7L1989	03j03j51 52:34	JXA	TAE DNW
TotaljWA	AnalRsis	8054C		5			7L8587	03j0Lj51 05:54	TNO	TAE DNW

TestAmerica DenKer

Lab Chronicle

Client: Stantec Consulting Corp.
 6roectjSite: Stantec C/ V - XangelRyC,

TestAmerica Job ID: 280-94797-7

Client Sample ID: RC4-SC-D5 8 M

Lab Sample ID: 209-31MBM4y

Date Collecte7: 9MMW6 xMM

d atri/ : Soli7

Date ReceiTe7: 9MMW6 xy:11

8 rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8 repare7 or s nalPF7	s nalPut	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-D5 8 M

Lab Sample ID: 209-31MBM4y

Date Collecte7: 9MMW6 xMM

d atri/ : Soli7

Date ReceiTe7: 9MMW6 xy:11

8ercent Soli7u: 6y19

8 rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8 repare7 or s nalPF7	s nalPut	Lab
TotaljWA	6rep	4074			4.0L g	4 mE	7L8058	03j03j51 57:4L	MDM	TAE DNW
TotaljWA	AnalRsis	8054C		5	0.5 mE	4 mE	7L8L23	03j01j51 02:55	MDM	TAE DNW
TotaljWA	6rep	743L			70.0 g	5 mE	7L1989	03j03j51 52:34	JXA	TAE DNW
TotaljWA	AnalRsis	8054C		5			7L8587	03j0Lj51 05:30	TNO	TAE DNW

Client Sample ID: RC4-SC-0x

Lab Sample ID: 209-31MBM46

Date Collecte7: 9MMW6 x4:19

d atri/ : Soli7

Date ReceiTe7: 9MMW6 xy:11

8 rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8 repare7 or s nalPF7	s nalPut	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-0x

Lab Sample ID: 209-31MBM46

Date Collecte7: 9MMW6 x4:19

d atri/ : Soli7

Date ReceiTe7: 9MMW6 xy:11

8ercent Soli7u: 0610

8 rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8 repare7 or s nalPF7	s nalPut	Lab
TotaljWA	6rep	4074			3.11 g	4 mE	7L8058	03j03j51 57:4L	MDM	TAE DNW
TotaljWA	AnalRsis	8054C		20	0.5 mE	4 mE	7L8L23	03j01j51 02:74	MDM	TAE DNW
TotaljWA	6rep	743L			70.8 g	5 mE	7L1989	03j03j51 52:34	JXA	TAE DNW
TotaljWA	AnalRsis	8054C		50			7L8738	03j0Lj51 20:39	TNO	TAE DNW

Client Sample ID: RC4-SC-02

Lab Sample ID: 209-31MBM40

Date Collecte7: 9MMW6 x4:11

d atri/ : Soli7

Date ReceiTe7: 9MMW6 xy:11

8 rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8 repare7 or s nalPF7	s nalPut	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-02

Lab Sample ID: 209-31MBM40

Date Collecte7: 9MMW6 x4:11

d atri/ : Soli7

Date ReceiTe7: 9MMW6 xy:11

8ercent Soli7u: 0M4

8 rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8 repare7 or s nalPF7	s nalPut	Lab
TotaljWA	6rep	4074			3.8L g	4 mE	7L8058	03j03j51 57:4L	MDM	TAE DNW

TestAmerica DenKer

Lab Chronicle

Client: Stantec Consulting Corp.
6roectjSite: Stantec C/ V - XangelRyC,

TestAmerica Job ID: 280-94797-7

Client Sample ID: RC4-SC-02

Lab Sample ID: 209-31MBM40

Date Collecte7: 9MM0x6 x4:11

d atri/ : Soli7

Date ReceiTe7: 9MMkx6 xy:11

8ercent Soli7u: 0M4

8rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8repare7 or s nalPF7	s nalPut	Lab
TotaljWA	AnalRsis	8054C		5	0.5 mE	4 mE	7L8L23	03j01j51 07:00	MDM	TAE DNW
TotaljWA	6rep	743L			70.7 g	5 mE	7L1989	03j03j51 52:34	JXA	TAE DNW
TotaljWA	AnalRsis	8054C		5			7L8587	03j0Lj51 02:28	TNO	TAE DNW

Client Sample ID: RC4-SC-0M

Lab Sample ID: 209-31MBM43

Date Collecte7: 9MM0x6 x1:99

d atri/ : Soli7

Date ReceiTe7: 9MMkx6 xy:11

8rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8repare7 or s nalPF7	s nalPut	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-0M

Lab Sample ID: 209-31MBM43

Date Collecte7: 9MM0x6 x1:99

d atri/ : Soli7

Date ReceiTe7: 9MMkx6 xy:11

8ercent Soli7u: 63U

8rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8repare7 or s nalPF7	s nalPut	Lab
TotaljWA	6rep	4074			3.87 g	4 mE	7L8058	03j03j51 57:4L	MDM	TAE DNW
TotaljWA	AnalRsis	8054C		5	0.5 mE	4 mE	7L8L23	03j01j51 07:24	MDM	TAE DNW
TotaljWA	6rep	743L			70.7 g	5 mE	7L8529	03j04j51 09:4L	JDv	TAE DNW
TotaljWA	AnalRsis	8054C		2			7L8L70	03j50j51 53:75	TNO	TAE DNW

Client Sample ID: RC4-SC-04

Lab Sample ID: 209-31MBM19

Date Collecte7: 9MM0x6 x1:91

d atri/ : Soli7

Date ReceiTe7: 9MMkx6 xy:11

8rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8repare7 or s nalPF7	s nalPut	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-04

Lab Sample ID: 209-31MBM19

Date Collecte7: 9MM0x6 x1:91

d atri/ : Soli7

Date ReceiTe7: 9MMkx6 xy:11

8ercent Soli7u: 01U

8rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8repare7 or s nalPF7	s nalPut	Lab
TotaljWA	6rep	4074			4.23 g	4 mE	7L8058	03j03j51 57:4L	MDM	TAE DNW
TotaljWA	AnalRsis	8054C		5	0.5 mE	4 mE	7L8L23	03j01j51 03:54	MDM	TAE DNW
TotaljWA	6rep	743L			70.1 g	5 mE	7L8529	03j04j51 09:4L	JDv	TAE DNW
TotaljWA	AnalRsis	8054C		2			7L8L70	03j50j51 53:49	TNO	TAE DNW

TestAmerica DenKer

Lab Chronicle

Client: Stantec Consulting Corp.
 6roectjSite: Stantec C/ V - XangelRyC,

TestAmerica Job ID: 280-94797-7

Client Sample ID: RC4-SC-01

Lab Sample ID: 209-31MBM-1x

Date Collecte7: 9MMW6 x1:x9

d atri/ : Soli7

Date ReceiTe7: 9MMW6 xy:11

8 rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moznt	Ninal s moznt	Aatch . z mber	8 repare7 or s nalPF7	s nalPut	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-01

Lab Sample ID: 209-31MBM-1x

Date Collecte7: 9MMW6 x1:x9

d atri/ : Soli7

Date ReceiTe7: 9MMW6 xy:11

8ercent Soli7u: 0x12

8 rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moznt	Ninal s moznt	Aatch . z mber	8 repare7 or s nalPF7	s nalPut	Lab
TotaljWA	6rep	4074			4.03 g	4 mE	7L8058	03j03j51 57:4L	MDM	TAE DNW
TotaljWA	AnalRsis	8054C		5	0.5 mE	4 mE	7L8L23	03j01j51 03:30	MDM	TAE DNW
TotaljWA	6rep	743L			75.4 g	5 mE	7L8529	03j04j51 09:4L	JDv	TAE DNW
TotaljWA	AnalRsis	8054C		5			7L840L	03j01j51 51:45	TNO	TAE DNW

Client Sample ID: RC4-SC-0y

Lab Sample ID: 209-31MBM-12

Date Collecte7: 9MMW6 x1:x1

d atri/ : Soli7

Date ReceiTe7: 9MMW6 xy:11

8 rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moznt	Ninal s moznt	Aatch . z mber	8 repare7 or s nalPF7	s nalPut	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-0y

Lab Sample ID: 209-31MBM-12

Date Collecte7: 9MMW6 x1:x1

d atri/ : Soli7

Date ReceiTe7: 9MMW6 xy:11

8ercent Soli7u: 0410

8 rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moznt	Ninal s moznt	Aatch . z mber	8 repare7 or s nalPF7	s nalPut	Lab
TotaljWA	6rep	4074			3.97 g	4 mE	7L8058	03j03j51 57:4L	MDM	TAE DNW
TotaljWA	AnalRsis	8054C		4	0.5 mE	4 mE	7L8L23	03j01j51 04:04	MDM	TAE DNW
TotaljWA	6rep	743L			70.5 g	5 mE	7L8529	03j04j51 09:4L	JDv	TAE DNW
TotaljWA	AnalRsis	8054C		4			7L8L70	03j50j51 54:28	TNO	TAE DNW

Client Sample ID: RC4-SC-06

Lab Sample ID: 209-31MBM-1M

Date Collecte7: 9MMW6 x1:29

d atri/ : Soli7

Date ReceiTe7: 9MMW6 xy:11

8 rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moznt	Ninal s moznt	Aatch . z mber	8 repare7 or s nalPF7	s nalPut	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-06

Lab Sample ID: 209-31MBM-1M

Date Collecte7: 9MMW6 x1:29

d atri/ : Soli7

Date ReceiTe7: 9MMW6 xy:11

8ercent Soli7u: 0yly

8 rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moznt	Ninal s moznt	Aatch . z mber	8 repare7 or s nalPF7	s nalPut	Lab
TotaljWA	6rep	4074			4.04 g	4 mE	7L8058	03j03j51 57:4L	MDM	TAE DNW

TestAmerica DenKer

Lab Chronicle

Client: Stantec Consulting Corp.
6roectjSite: Stantec C/ V - XangelRyC,

TestAmerica Job ID: 280-94797-7

Client Sample ID: RC4-SC-06

Lab Sample ID: 209-31MBM-1M

Date Collecte7: 9MM0x6 x1:29

d atri/ : Soli7

Date ReceiTe7: 9MMkx6 xy:11

8ercent Soli7u: 0yly

8rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8repare7 or s nalPF7	s nalPut	Lab
TotaljWA	AnalRsis	8054C		5	0.5 mE	4 mE	7L8812	03j55j51 52:5L	MDM	TAE DNW
TotaljWA	6rep	743L			70.0 g	5 mE	7L8529	03j04j51 09:4L	JDv	TAE DNW
TotaljWA	AnalRsis	8054C		4			7L8L70	03j50j51 54:41	TNO	TAE DNW

Client Sample ID: RC4-SC-D5 84

Lab Sample ID: 209-31MBM-14

Date Collecte7: 9MM0x6 x1:29

d atri/ : Soli7

Date ReceiTe7: 9MMkx6 xy:11

8rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8repare7 or s nalPF7	s nalPut	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-D5 84

Lab Sample ID: 209-31MBM-14

Date Collecte7: 9MM0x6 x1:29

d atri/ : Soli7

Date ReceiTe7: 9MMkx6 xy:11

8ercent Soli7u: 0yUM

8rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8repare7 or s nalPF7	s nalPut	Lab
TotaljWA	6rep	4074			3.18 g	4 mE	7L8058	03j03j51 57:4L	MDM	TAE DNW
TotaljWA	AnalRsis	8054C		5	0.5 mE	4 mE	7L8812	03j55j51 52:35	MDM	TAE DNW
TotaljWA	6rep	743L			75.2 g	5 mE	7L8529	03j04j51 09:4L	JDv	TAE DNW
TotaljWA	AnalRsis	8054C		4			7L8L70	03j50j51 5L:24	TNO	TAE DNW

Client Sample ID: RC4-SC-00

Lab Sample ID: 209-31MBM-11

Date Collecte7: 9MM0x6 x1:21

d atri/ : Soli7

Date ReceiTe7: 9MMkx6 xy:11

8rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8repare7 or s nalPF7	s nalPut	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-00

Lab Sample ID: 209-31MBM-11

Date Collecte7: 9MM0x6 x1:21

d atri/ : Soli7

Date ReceiTe7: 9MMkx6 xy:11

8ercent Soli7u: 0xL6

8rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moz nt	Ninal s moz nt	Aatch . z mber	8repare7 or s nalPF7	s nalPut	Lab
TotaljWA	6rep	4074			4.58 g	4 mE	7L8058	03j03j51 57:4L	MDM	TAE DNW
TotaljWA	AnalRsis	8054C		20	0.5 mE	4 mE	7L8L23	03j01j51 0L:59	MDM	TAE DNW
TotaljWA	6rep	743L			70.8 g	5 mE	7L8529	03j04j51 09:4L	JDv	TAE DNW
TotaljWA	AnalRsis	8054C		5			7L840L	03j01j51 20:31	TNO	TAE DNW

TestAmerica DenKer

Lab Chronicle

Client: Stantec Consulting Corp.
 6roectjSite: Stantec C/ V - XangelRyC,

TestAmerica Job ID: 280-94797-7

Client Sample ID: RC4-SC-03

Lab Sample ID: 209-31MBM-1y

Date Collecte7: 9MMW6 x1:MB

d atri/ : Soli7

Date ReceiTe7: 9MMW6 xy:11

8 rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moznt	Ninal s moznt	Aatch . z mber	8 repare7 or s nalPF7	s nalPut	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-03

Lab Sample ID: 209-31MBM-1y

Date Collecte7: 9MMW6 x1:MB

d atri/ : Soli7

Date ReceiTe7: 9MMW6 xy:11

8ercent Soli7u: 04u

8 rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moznt	Ninal s moznt	Aatch . z mber	8 repare7 or s nalPF7	s nalPut	Lab
TotaljWA	6rep	4074			4.25 g	4 mE	7L8058	03j03j51 57:4L	MDM	TAE DNW
TotaljWA	AnalRsis	8054C		4	0.5 mE	4 mE	7L8L23	03j01j51 0L:33	MDM	TAE DNW
TotaljWA	6rep	743L			75.8 g	5 mE	7L8529	03j04j51 09:4L	JDv	TAE DNW
TotaljWA	AnalRsis	8054C		50			7L9343	03j53j51 58:55	TNO	TAE DNW

Client Sample ID: RC4-SC-39

Lab Sample ID: 209-31MBM-16

Date Collecte7: 9MMW6 x1:M

d atri/ : Soli7

Date ReceiTe7: 9MMW6 xy:11

8 rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moznt	Ninal s moznt	Aatch . z mber	8 repare7 or s nalPF7	s nalPut	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-39

Lab Sample ID: 209-31MBM-16

Date Collecte7: 9MMW6 x1:M

d atri/ : Soli7

Date ReceiTe7: 9MMW6 xy:11

8ercent Soli7u: 0Mj

8 rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moznt	Ninal s moznt	Aatch . z mber	8 repare7 or s nalPF7	s nalPut	Lab
TotaljWA	6rep	4074			4.01 g	4 mE	7L8058	03j03j51 57:4L	MDM	TAE DNW
TotaljWA	AnalRsis	8054C		20	0.5 mE	4 mE	7L8L23	03j01j51 01:09	MDM	TAE DNW
TotaljWA	6rep	743L			77.0 g	5 mE	7L8529	03j04j51 09:4L	JDv	TAE DNW
TotaljWA	AnalRsis	8054C		5			7L840L	03j01j51 25:34	TNO	TAE DNW

Client Sample ID: RC4-SC-3x

Lab Sample ID: 209-31MBM-10

Date Collecte7: 9MMW6 x1:49

d atri/ : Soli7

Date ReceiTe7: 9MMW6 xy:11

8 rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moznt	Ninal s moznt	Aatch . z mber	8 repare7 or s nalPF7	s nalPut	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-3x

Lab Sample ID: 209-31MBM-10

Date Collecte7: 9MMW6 x1:49

d atri/ : Soli7

Date ReceiTe7: 9MMW6 xy:11

8ercent Soli7u: 02u

8 rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moznt	Ninal s moznt	Aatch . z mber	8 repare7 or s nalPF7	s nalPut	Lab
TotaljWA	6rep	4074			4.01 g	4 mE	7L8058	03j03j51 57:4L	MDM	TAE DNW

TestAmerica DenKer

Lab Chronicle

Client: Stantec Consulting Corp.
6roectjSite: Stantec C/ V - XangelRyC,

TestAmerica Job ID: 280-94797-7

Client Sample ID: RC4-SC-3x

Date Collecte7: 9MM0x6 x1:49

Date ReceiTe7: 9MMkx6 xy:11

Lab Sample ID: 209-31MBM-10

d atri/ : Soli7

8ercent Soli7u: 02U

8rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moznt	Ninal s moznt	Aatch . z mber	8repare7 or s nalPF7	s nalPut	Lab
TotaljWA	AnalRsis	8054C		4	0.5 mE	4 mE	7L8L23	03j01j51 01:73	MDM	TAE DNW
TotaljWA	6rep	743L			70.5 g	5 mE	7L8529	03j04j51 09:4L	JDv	TAE DNW
TotaljWA	AnalRsis	8054C		5			7L840L	03j01j51 22:57	TNO	TAE DNW

Client Sample ID: RC4-SC-32

Date Collecte7: 9MM0x6 x1:41

Date ReceiTe7: 9MMkx6 xy:11

Lab Sample ID: 209-31MBM-13

d atri/ : Soli7

8rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moznt	Ninal s moznt	Aatch . z mber	8repare7 or s nalPF7	s nalPut	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-32

Date Collecte7: 9MM0x6 x1:41

Date ReceiTe7: 9MMkx6 xy:11

Lab Sample ID: 209-31MBM-13

d atri/ : Soli7

8ercent Soli7u: 0x10

8rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moznt	Ninal s moznt	Aatch . z mber	8repare7 or s nalPF7	s nalPut	Lab
TotaljWA	6rep	4074			3.85 g	4 mE	7L8058	03j03j51 57:4L	MDM	TAE DNW
TotaljWA	AnalRsis	8054C		5	0.5 mE	4 mE	7L8L23	03j01j51 01:49	MDM	TAE DNW
TotaljWA	6rep	743L			72.9 g	5 mE	7L8529	03j04j51 09:4L	JDv	TAE DNW
TotaljWA	AnalRsis	8054C		5			7L840L	03j01j51 22:32	TNO	TAE DNW

Client Sample ID: RC4-SC-3M

Date Collecte7: 9MM0x6 x1:19

Date ReceiTe7: 9MMkx6 xy:11

Lab Sample ID: 209-31MBMy9

d atri/ : Soli7

8rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moznt	Ninal s moznt	Aatch . z mber	8repare7 or s nalPF7	s nalPut	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-3M

Date Collecte7: 9MM0x6 x1:19

Date ReceiTe7: 9MMkx6 xy:11

Lab Sample ID: 209-31MBMy9

d atri/ : Soli7

8ercent Soli7u: 0y10

8rep BPpe	Aatch BPpe	Aatch d etho7	Rzn	Dil Nactor	Initial s moznt	Ninal s moznt	Aatch . z mber	8repare7 or s nalPF7	s nalPut	Lab
TotaljWA	6rep	4074			4.24 g	4 mE	7L8510	03j04j51 55:2L	TNO	TAE DNW
TotaljWA	AnalRsis	8054C		50	0.5 mE	4 mE	7L8398	03j01j51 53:70	MDM	TAE DNW
TotaljWA	6rep	743L			70.1 g	5 mE	7L8529	03j04j51 09:4L	JDv	TAE DNW
TotaljWA	AnalRsis	8054C		4			7L8L70	03j50j51 58:59	TNO	TAE DNW

LaboratorP Referenceu:

TAE DNW= TestAmerica DenKery3944 Yarrow StreetyArkadayC, 80002yTNE (707)17L-0500

TestAmerica DenKer

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
 Project Site: Stantec C/ V - Xangel R/C,

TestAmerica Job ID: 280-94696-6

Laboratory: TestAmerica Denver

All accreditation/certifications of the following laboratories are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2NA	DoD ENA1		290L.07	70-67-7L
A2NA	IS, JIEC 7L024		290L.07	70-67-7L
Alabama	State 1 program	3	30L60	09-60-72 5
Alaska k STU	State 1 program	70	(ST-60	03-04-78
Arizona	State 1 program	9	Az 0L76	72-20-7L
Arkansas DEZ	State 1 program	Q	88-0Q8L	0Q07-7L
California	State 1 program	9	2476	07-08-78 5
Connecticut	State 1 program	7	1H-0Q8Q	09-60-78
Florida	h ENA1	3	E8LQQL	0Q60-7L
Georgia	State 1 program	3	hJA	07-08-78
Illinois	h ENA1	4	20007L	03-60-78
Iowa	State 1 program	L	6L0	72-07-78 5
Kansas	h ENA1	L	E-707QQ	03-60-7L 5
Louisiana	h ENA1	Q	0209Q	0Q60-7L
Maine	State 1 program	7	C, 0002	06-06-79
Minnesota	h ENA1	4	8-999-304	72-67-7L 5
Nebraska	State 1 program	9	C, 002Q	0L-67-7L
New Hampshire	h ENA1	7	204670	03-28-7L
New Jersey	h ENA1	2	C, 003	0Q60-7L
New York	h ENA1	2	779QB	03-07-78
North Carolina kWWjSWU	State 1 program	3	648	72-67-7L
North Dakota	State 1 program	8	X-063	07-09-78
Ohio	State 1 program	Q	8Q73	08-67-7L
Oregon	h ENA1	70	3024	07-08-78
Tennessee	h ENA1	6	QB-00QQB	0L-67-7L
South Carolina	State 1 program	3	L2002007	07-09-7L 5
Texas	h ENA1	Q	T703L03786-7Q-72	09-60-7L
U.S. SDA	FeQeral		1660-7Q-0069L	72-74-79
Utah	h ENA1	8	C, 0002Q	0L-67-7L
Virginia	h ENA1	6	3Q262	0Q73-7L
Washington	State 1 program	70	C486	08-02-7L
West Virginia DE1	State 1 program	6	643	77-60-7L
Wisconsin	State 1 program	4	999Q74360	08-67-7L
Wyoming k STU	A2NA	8	290L.07	70-67-7L

Arvada, CO 80002-4517
phone 303.736.0100 fax 303.431.7171

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Bethany Lucente Tel/Fax: (303) 250-4718		Site Contact: Bethany Lucente Lab Contact: Jamie Ide		Date: 3/31/2017 Carrier: Courier		COC No: 2 of 5 Pages	
2000 South Colorado Blvd., Suite 2-300 Denver, CO 80222		Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS TAT if different from Below ASAP <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Filtered Sample (Y/N)				Sampler: Stauthamer/Jones	
Phone (303) 758-4058 FAX (303) 758-4828 Project Name: CPL-Rangely C-4 Site: CPL Rangely P O # 203720102				Perform MS / MSD (Y/N)				For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.:	
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.				Sample Specific Notes:
RC4-SC-59	3/30/2017	1150	G	Soil	2	N	X		
RC4-SC-60	3/30/2017	1155	G	Soil	2	N	X		
RC4-SC-61	3/30/2017	1200	G	Soil	2	N	X		
RC4-SC-62	3/30/2017	1205	G	Soil	2	N	X		
RC4-SC-63	3/30/2017	1210	G	Soil	2	N	X		
RC4-SC-64	3/30/2017	1215	G	Soil	2	N	X		
RC4-SC-65	3/30/2017	1220	G	Soil	2	N	X		
RC4-SC-66	3/30/2017	1225	G	Soil	2	N	X		
RC4-SC-67	3/30/2017	1230	G	Soil	2	N	X		
RC4-SC-68	3/30/2017	1235	G	Soil	2	N	X		
RC4-SC-69	3/30/2017	1240	G	Soil	6	N	X		
RC4-SC-70	3/30/2017	1245	G	Soil	2	N	X		
RC4-SC-DUP1	3/30/2017	1245	G	Soil	4	N	X		
RC4-SC-71	3/30/2017	1250	G	Soil	2	N	X		
RC4-SC-72	3/30/2017	1255	G	Soil	2	N	X		
RC4-SC-73	3/30/2017	1300	G	Soil	2	N	X		
RC4-SC-74	3/30/2017	1305	G	Soil	2	N	X		
RC4-SC-75	3/30/2017	1310	G	Soil	6	N	X		
RC4-SC-76	3/30/2017	1315	G	Soil	2	N	X		
RC4-SC-DUP2	3/30/2017	1315	G	Soil	4	N	X		
RC4-SC-77	3/30/2017	1320	G	Soil	2	N	X		

Lead PDA 3-31-17 1635 TAD

Chain of Custody Record

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Bethany Lucente Tel/Fax: (303) 250-4718		Site Contact: Bethany Lucente Lab Contact: Jamie Ide		Date: 3/31/2017 Carrier: Courier		COC No: 3 of 5 Pages	
Stanlec 2000 South Colorado Blvd., Suite 2-300 Denver, CO 80222		Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS TAT if different from Below ASAP <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Filtered Sample (Y / N)		Perform MS / MSD (Y / N)		GRO-TEPH 8015C	
Phone (303) 758-4058 FAX (303) 758-4828		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
Project Name: CPL-Rangely C-4 Site: CPL Rangely P O # 203720102		RC4-SC-78		3/30/2017		1325		G Soil 2	
		RC4-SC-79		3/30/2017		1330		G Soil 2	
		RC4-SC-80		3/30/2017		1335		G Soil 2	
		RC4-SC-DUP3		3/30/2017		1335		G Soil 4	
		RC4-SC-81		3/30/2017		1450		G Soil 2	
		RC4-SC-82		3/30/2017		1455		G Soil 2	
		RC4-SC-83		3/30/2017		1500		G Soil 2	
		RC4-SC-84		3/30/2017		1505		G Soil 2	
		RC4-SC-85		3/30/2017		1510		G Soil 2	
		RC4-SC-86		3/30/2017		1515		G Soil 2	
		RC4-SC-87		3/30/2017		1520		G Soil 2	
		RC4-SC-DUP4		3/30/2017		1520		G Soil 4	
		RC4-SC-88		3/30/2017		1525		G Soil 2	
		RC4-SC-89		3/30/2017		1530		G Soil 2	
		RC4-SC-90		3/30/2017		1535		G Soil 2	
		RC4-SC-91		3/30/2017		1540		G Soil 2	
		RC4-SC-92		3/30/2017		1545		G Soil 6	
		RC4-SC-93		3/30/2017		1550		G Soil 2	
		RC4-SC-94		3/30/2017		1555		G Soil 2	
		RC4-SC-95		3/30/2017		1600		G Soil 2	
		RC4-SC-96		3/30/2017		1605		G Soil 2	

Revised PDA 3-31-17 1655 TAD

Chain of Custody Record

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Bethany Lucente		Site Contact: Bethany Lucente		Date: 3/31/2017		COC No: 14 of 5 Pages	
Tel/Fax: (303) 250-4718		Analysis Turnaround Time		Lab Contact: Jamie Ide		Carrier: Courier		Sampler: Stautthamer/Jones	
2000 South Colorado Blvd., Suite 2-300		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS		Perform MS / MSD (Y / N)				For Lab Use Only:	
Denver, CO 80222		TAT if different from Below		Filtered Sample (Y / N)				Walk-in Client:	
(303) 758-4058 Phone		ASAP		DRO-TEPH 8015C				Lab Sampling:	
(303) 758-4828 FAX		<input checked="" type="checkbox"/> 2 weeks		GRO-TEPH 8015C				Job / SDG No.:	
Project Name: CPL-Rangely C-4		<input type="checkbox"/> 1 week							
Site: CPL Rangely		<input type="checkbox"/> 2 days							
P O # 203720102		<input type="checkbox"/> 1 day							
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Sample Specific Notes:	
RC4-SC-DUP5	3/30/2017	1610	G	Soil	4	N	N		
RC4-SC-97	3/30/2017	1610	G	Soil	6	N	Y		
RC4-SC-98	3/30/2017	1615	G	Soil	2	N	N		
RC4-SC-99	3/30/2017	1620	G	Soil	2	N	N		
RC4-SC-100	3/30/2017	1625	G	Soil	2	N	N		
RC4-SC-101	3/30/2017	1630	G	Soil	2	N	N		
RC4-SC-102	3/30/2017	1635	G	Soil	2	N	N		
RC4-SC-103	3/30/2017	1640	G	Soil	2	N	N		
RC4-SC-104	3/30/2017	1645	G	Soil	2	N	N		
RC4-SC-105	3/30/2017	1650	G	Soil	2	N	N		
RC4-SC-DUP6	3/30/2017	1650	G	Soil	4	N	N		
RC4-SC-106	3/30/2017	1655	G	Soil	6	N	Y		
RC4-SC-107	3/30/2017	1700	G	Soil	2	N	N		
RC4-SC-108	3/30/2017	1705	G	Soil	2	N	N		
RC4-SC-109	3/30/2017	1710	G	Soil	2	N	N		
RC4-SC-110	3/30/2017	1715	G	Soil	2	N	N		
RC4-SC-111	3/30/2017	1720	G	Soil	2	N	N		
RC4-SC-112	3/30/2017	1725	G	Soil	2	N	N		
RC4-SC-113	3/30/2017	1730	G	Soil	2	N	N		
RC4-SC-114	3/30/2017	1735	G	Soil	2	N	N		
RC4-SC-115	3/30/2017	1740	G	Soil	2	N	N		

Reed PETA 3-31-17 1655 T40

Chain of Custody Record

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: ☐

Client Contact		Project Manager: Bethany Lucente Tel/Fax: (303) 250-4718		Site Contact: Bethany Lucente Lab Contact: Jamie Ide		Date: 3/31/2017 Carrier: Courier		COC No: 5 of 5 Pages	
2000 South Colorado Blvd., Suite 2-300 Denver, CO 80222		Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS TAT if different from Below ASAP <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.:		Sampler: Stauthamer/Jones			
Project Name: CPL-Rangely C-4 Site: CPL Rangely P O # 203720102									

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Sample Specific Notes:
RC4-SC-DUP7	3/30/2017	1745	G	Soil	4	N	X	DRO-TEPH 8015C
RC4-SC-116	3/30/2017	1745	G	Soil	6	N	X	
RC4-SC-117	3/30/2017	1750	G	Soil	2	N	X	
RC4-SC-118	3/30/2017	1755	G	Soil	2	N	X	
RC4-SC-119	3/30/2017	1800	G	Soil	2	N	X	
RC4-SC-120	3/30/2017	1805	G	Soil	2	N	X	
RC4-SC-121	3/30/2017	1810	G	Soil	2	N	X	
RC4-SC-122	3/30/2017	1815	G	Soil	2	N	X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Special Instructions/QC Requirements & Comments: Metals Include Ba, B, Cd, Cr, Cu, Pb, Ni, Se, Ag, Zn

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Cooler Temp. (°C): Obs'd:	Corr'd:	Therm ID No.:
Relinquished by: Mike Stauthamer/ide	Company: Stautec	Received by: [Signature]	Company: TAP	Date/Time: 3-31-17 1655
Relinquished by:	Company:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.11, dated 1/24/2017

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-95393-3

Login Number: 95393

List Source: TestAmerica Denver

List Number: 1

Creator: Pottruff, Reed W

Question	Answer	Comment
Activity was conducted in a background measurement by a survey meter.	No	
Is the container seal intact, present?	Yes	
Sample seals, present?	Yes	
Is the cooler or samples not appear to have been compromised or tampered with?	Yes	
Samples were received on ice.	Yes	
Cooler temperature is acceptable.	False	SAMPLE DLS=LAE/ DCL M = UN=UE/ D ALCYLE UI = Uf =LF M
Cooler temperature is recorded.	Yes	
CUC is present.	Yes	
CUC is, in an illegible.	Yes	
CUC is, in it all pertinent information.	Yes	
Is the sample name present on CUC?	Yes	
Are there no discrepancies between the containers received and the CUC.	False	FSSY? CUN=/ YLAS f UA EI MS/ F MPLS
Samples are received in the Ring time (during tests) immediately.	Yes	
G=		
Sample containers have legible labels.	Yes	
Containers are not broken or leaking.	Yes	
Sample collection times are recorded.	Yes	
Appropriate sample containers are used.	Yes	
Sample bottles are completely, in.	Yes	
Sample preservation, in.	No	
Is there sufficient detail, or all the necessary information?	Yes	
Containers are being zeroed out, no space or bubble is visible.	No	
Multiple samples are not present.	Yes	
Samples are not being split or composited.	Yes	
Is the label clear, in.	No	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver

4955 Yarrow Street

Arvada, CO 80002

Tel: (303)736-0100

TestAmerica Job ID: 280-95393-4

Client Project/Site: Stantec CVX - Rangely, CO

For:

Stantec Consulting Corp.

2000 South Colorado Blvd

Suite 2-300

Denver, Colorado 80222

Attn: Ms. Bethany Lucente



Authorized for release by:

4/24/2017 2:38:48 PM

Jamie Ide, Project Manager I

(303)736-0126

jamie.ide@testamericainc.com

LINKS

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results through

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www.testamericainc.com

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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Definitions/Glossary

TestAmerica Job ID: 280-95393-C

Line: 1 of 10
Page: 1 of 1

Qualifiers

GC SmV

Qualifier	Qualifier Description
R	ugrropate is ogtsif e coStronimits
J	y esgrt is resst; aSt; e y h bgt preater t; aS or exganto t; e k Dh aSf t; e coSceStratioS is aS a. . rovmate LargeP
D	uam. re resgrts are obtaiSef qom a f irtioSM; e sgrropate or matriv s. iFe recoLeries re. ortef are caregratef qom f irtgef sam. resP
42	k uK uD y j D evceef s coStronimits
C	k uCk uD: T; e aSan te. reseSt iSt; e oripiSansam. re is preater t; aS Ctimes t; e matriv s. iFe coSceStratioSM; erepreCcoStronimits are Sot a. . ricabreP

GC cep i SmV

Qualifier	Qualifier Description
B	l om. ogSf was ogSf iSt; e brASF aSf sam. reP
D	uam. re resgrts are obtaiSef qom a f irtioSM; e sgrropate or matriv s. iFe recoLeries re. ortef are caregratef qom f irtgef sam. resP
R	ugrropate is ogtsif e coStronimits
C	k uCk uD: T; e aSan te. reseSt iSt; e oripiSansam. re is preater t; aS Ctimes t; e matriv s. iFe coSceStratioSM; erepreCcoStronimits are Sot a. . ricabreP
E	y esgrt evceef ef canbratioS raSpeP
42	k uK uD y j D evceef s coStronimits
J	y esgrt is resst; aSt; e y h bgt preater t; aS or exganto t; e k Dh aSf t; e coSceStratioS is aS a. . rovmate LargeP

Glossary

Vbbreviation	These Opp p only used abbreviations p ay or p ay not be Aresent in this reAort.
α	histef gSf er t; e "D" congmS to f esipSate t; at t; e resgrt is re. ortef oS a f r, weip; t basis
%y	j erceSt y ecoLer,
l 4h	l oStaiSs 4ree hixgif
l N4	l oStaiSs So 4ree hixgif
DEy	Dg. ricate error ratio (Sormarizef absorgte f iqqreSce)
Din4ac	DirtioS 4actor
DhOy AOy EQN	ISf icates a DirtioSOy e-aSan sisOy e-evtractioSOor af f itioSanlSitianmetars aSioS aSan sis oqt; e sam. re
Dhl	DecisioS reLencoSceStratioS
k DA	k iSimgm f etectabre actiLit,
EDh	Estimatef DetectioS himit
k DI	k iSimgm f etectabre coSceStratioS
k Dh	k et; of DetectioS himit
k h	k iSimgm heLen(DioviS)
NI	Not l aregratef
ND	Not f etectef at t; e re. ortiSp nimit (or k Dh or EDh iqs; owS)
j Qh	j racticanQgaStitatioS himit
Ql	Qgarit, l oStron
y Ey	y eratiLe error ratio
y h	y e. ortiSp himit or y exgestef himit (y af ioc; emistr,)
y j D	y eratiLe j erceSt DiqqreSceCa measgre oqt; e reatiLe f iqqreSce betweeS two . oiSts
TE4	Tovicit, ExgiLareSt 4actor (DioviS)
TEQ	Tovicit, ExgiLareSt QgotieSt (DioviS)

Case Narrative

Client: Stantec Consulting Corp.
Project: Stantec CXR - y angel, OCW

TestAmerica Job ID: 280-95393-P

Job ID: 280-95393-4

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Stantec Consulting Corp.
Project: Stantec CVX - Rangely, CO
Report Number: 280-95393-4

In the event of 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, Equalit, control samples were within established control limits. In the event of exceptions noted below, each sample was analyzed, but to achieve the lowest possible reporting limit within the constraints of the method. In some cases due to interference or analysis, tests present at high concentrations, samples were filtered. For filtered samples, the reporting limits are adjusted relative to the filtration recovery.

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

All holding times were met and proper preservation noted for the method's performance on these samples. Unless otherwise specified in the individual sections below.

RECEIPT

The samples were received on 3/27/2014 5:55 p.m.; the samples arrived in good condition, properly preserved and were received on ice. The temperatures of the coolers at receipt time were 8.9° C to 7.3° C and 73.9° C. The samples were received at the laboratory, outside the receiver temperature criteria. The samples were collected 3/27/14 and arrived at the laboratory, on 3/27/14. It was noted that ice was present in the coolers; however, it has not been present with the samples during the storage time between 3/20 and 3/27. The laboratory will proceed with the receiver analysis, unless otherwise notified. The client was notified 3/27/14.

The chain of custody, indicates that containers were received for each of the following samples: y CP-SC-D~j 5 280-95393-(P)O y CP-SC-D~j (280-95393-4P). However, it was noted at the time of sample receipt only, 2 containers were received for each sample. Sufficient volume is available for analysis; therefore, corrective action was not performed.

7 of total containers for samples y CP-SC-94 280-95393-(5)O y CP-SC-94 280-95393-(5)MSH and y CP-SC-94 280-95393-(5)MSDH was received empty. The laboratory will perform the receiver analysis, since with the sample volume received, as sufficient volume remains. The client was notified 3/27/14.

Due to the large number of samples received, the samples have been logged in a job series of 20 samples per SD[280-95393-70 280-95393-2. 280-95393-3. 280-95393-5). This SD[includes samples (7-80 listed on the chain of custody, .

GASOLINE RANGE ORGANICS (GRO)

1,2,4-Trichlorotoluene will be the surrogate recovery, criteria for y CP-SC-94 280-95393-(5)O y CP-SC-94MS 280-95393-(5)MSO y CP-SC-707 280-95393-(9)O y CP-SC-702 280-95393-40)O y CP-SC-709 280-95393-48)O y CP-SC-770 280-95393-49)O and y CP-SC-777 280-95393-80). In some cases due to interference or analysis, tests present at high concentrations, samples were filtered. For filtered samples, the reporting limits are adjusted relative to the filtration recovery. The surrogate recoveries are calculated from filtered samples and in some cases are filtered below reportable limits.

1,2,4-Trichlorotoluene will be the surrogate recovery, criteria for y CP-SC-9P 280-95393-(7)O y CP-SC-9(280-95393-(3)O y CP-SC-D~j 5 280-95393-(P)O y CP-SC-99 280-95393-(4)O y CP-SC-700 280-95393-(8). Since matrix interference is present; therefore, corrective action was not performed.

For y WGC(-C70) will be the recovery, criteria for the MSWSD sample y CP-SC-94 280-95393-(5). In addition, for y WGC(-C70) due to the y j D limit. The associated CS was in control; therefore, corrective action was not performed.

For y WGC(-C70) will be the recovery, criteria for the MS sample y CP-SC-70(280-95393-45). In addition, for y WGC(-C70) due to the y j D limit. The associated CS was in control; therefore, corrective action was not performed.

Samples y CP-SC-94 280-95393-(5)URH y CP-SC-98 280-95393-()URH y CP-SC-99 280-95393-(4)URH y CP-SC-700 280-95393-(8)URH y CP-SC-707 280-95393-(9)URH y CP-SC-702 280-95393-40)URH y CP-SC-709 280-95393-48)URH y CP-SC-770 280-95393-49)URH and y CP-SC-777 280-95393-80)URH. The receiver filtration prior to analysis. The reporting limits have been adjusted accordingly.

Case Narrative

Client: Stantec Consulting Corp.
Project Site: Stantec CXR - y angel, OCW

TestAmerica Job ID: 280-95393-P

Job ID: 280-95393-4 (Continued)

Laboratory: TestAmerica Denver (Continued)

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

DIESEL RANGE ORGANICS

The following sample could not be thoroughly homogenized before sub-sampling as per method due to sample matrix: y CP-SC-99 280-95393-(4). The sample was in standing water.

The following sample could not be thoroughly homogenized before sub-sampling as per method due to sample matrix: y CP-SC-95 280-95393-(2) and y CP-SC-700 280-95393-(8). The sample was clear.

The initial aliquot and surrogate aliquot used for extraction of the following sample was split between two extraction vessels with the routine volume of solvent added to each vessel: y CP-SC-99 280-95393-(4). After the extraction the extracts from both vessels were combined and concentrated. This was done due to the sample matrix was especially, very sample aliquot could not fit in one tube with sufficient room for solvent.

o-Terpxen, I used the surrogate recovery, criteria for y CP-SC-9P 280-95393-(7) y CP-SC-94 280-95393-(5) y CP-SC-705 280-95393-(43) y CP-SC-770 280-95393-(49) and y CP-SC-777 280-95393-(80). In some cases due to interference or analysis, tests present at high concentrations samples were filtered. For filtered samples the reporting limits are adjusted relative to the filtration recovery. The surrogate recoveries are calculated from filtered samples and in some cases are filtered below reportable limits.

o-Terpxen, I used the surrogate recovery, criteria for y CP-SC-95 280-95393-(2) y CP-SC-98 280-95393-() y CP-SC-707 280-95393-(9) and y CP-SC-D~j 5 280-95393-(P). Because of matrix interference is present; therefore corrective action was not performed.

Dy W 70-C28) and surrogate o-Terpxen, I used the recovery, criteria for the MSWSD of sample y CP-SC-94 280-95393-(5). Additionally, O Dy W 70-C28) exceeded the y D limit. The associated JCS was in control; therefore corrective action was not performed.

Dy W 70-C28) was detected in method blank MB 280-3(87297-A) at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate and has been flagged. The associated sample reported a result above the MDL and for y J the result has been flagged.

Dy W 70-C28) used the recovery, criteria for the MSD of sample y CP-SC-70(280-95393-45). The associated JCS was in control; therefore corrective action was not performed.

Samples y CP-SC-9P 280-95393-(7) LRL y CP-SC-95 280-95393-(2) LRL y CP-SC-9(280-95393-(3) LRL y CP-SC-D~j 5 280-95393-(P) LRL y CP-SC-94 280-95393-(5) LRL y CP-SC-703 280-95393-(47) LRL y CP-SC-705 280-95393-(43) LRL y CP-SC-709 280-95393-(48) LRL y CP-SC-770 280-95393-(49) LRL and y CP-SC-777 280-95393-(80) LRL Recovery prior to analysis. The reporting limits have been adjusted accordingly.

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

PERCENT SOLIDS

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

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-4

Client Sample ID: RC4-SC-34

0aL Sample ID: b28-39535-71

Analyte	Result	Qualifier	R0	MD0	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	1.1	J	1.4	0.37	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	2700	B	23	3.9	mg/Kg	5	✖	8015C	Total/NA

Client Sample ID: RC4-SC-39

0aL Sample ID: b28-39535-7b

Analyte	Result	Qualifier	R0	MD0	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	19		1.4	0.37	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	1900	B	9.6	1.6	mg/Kg	2	✖	8015C	Total/NA

Client Sample ID: RC4-SC-37

0aL Sample ID: b28-39535-75

Analyte	Result	Qualifier	R0	MD0	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	1.5		1.4	0.37	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	2000	B	8.7	1.5	mg/Kg	2	✖	8015C	Total/NA

Client Sample ID: RC4-SC-DUP9

0aL Sample ID: b28-39535-74

Analyte	Result	Qualifier	R0	MD0	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	16		1.5	0.39	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	1800	B	9.4	1.6	mg/Kg	2	✖	8015C	Total/NA

Client Sample ID: RC4-SC-36

0aL Sample ID: b28-39535-79

Analyte	Result	Qualifier	R0	MD0	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	140	F2	7.0	1.9	mg/Kg	5	✖	8015C	Total/NA
DRO (C10-C28)	2500	B	23	3.9	mg/Kg	5	✖	8015C	Total/NA

Client Sample ID: RC4-SC-32

0aL Sample ID: b28-39535-77

Analyte	Result	Qualifier	R0	MD0	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	92		6.8	1.8	mg/Kg	5	✖	8015C	Total/NA
DRO (C10-C28)	1100	B	4.2	0.72	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-33

0aL Sample ID: b28-39535-76

Analyte	Result	Qualifier	R0	MD0	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	88		3.1	0.83	mg/Kg	2	✖	8015C	Total/NA
DRO (C10-C28)	440	B	5.0	0.85	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-188

0aL Sample ID: b28-39535-72

Analyte	Result	Qualifier	R0	MD0	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	71		2.8	0.77	mg/Kg	2	✖	8015C	Total/NA
DRO (C10-C28)	580	B	4.7	0.79	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-181

0aL Sample ID: b28-39535-73

Analyte	Result	Qualifier	R0	MD0	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	420		15	4.0	mg/Kg	10	✖	8015C	Total/NA
DRO (C10-C28)	380		4.4	0.75	mg/Kg	1	✖	8015C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-4

Client Sample ID: RC4-SC-18b

0aL Sample ID: b28-39535-68

Analyte	Result	Qualifier	R0	MD0	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	190		7.0	1.9	mg/Kg	5	✖	8015C	Total/NA
DRO (C10-C28)	840		4.7	0.80	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-185

0aL Sample ID: b28-39535-61

Analyte	Result	Qualifier	R0	MD0	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	27		1.3	0.34	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	1200		8.8	1.5	mg/Kg	2	✖	8015C	Total/NA

Client Sample ID: RC4-SC-184

0aL Sample ID: b28-39535-6b

Analyte	Result	Qualifier	R0	MD0	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	23		1.3	0.35	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	740		4.4	0.75	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-189

0aL Sample ID: b28-39535-65

Analyte	Result	Qualifier	R0	MD0	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	26		1.3	0.35	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	2200		20	3.4	mg/Kg	5	✖	8015C	Total/NA

Client Sample ID: RC4-SC-DUP7

0aL Sample ID: b28-39535-64

Analyte	Result	Qualifier	R0	MD0	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	32		1.3	0.35	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	950		4.2	0.72	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-187

0aL Sample ID: b28-39535-69

Analyte	Result	Qualifier	R0	MD0	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	28	F2	1.3	0.36	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	500		4.3	0.74	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-186

0aL Sample ID: b28-39535-67

Analyte	Result	Qualifier	R0	MD0	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	6.9		1.4	0.38	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	270		4.2	0.70	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-182

0aL Sample ID: b28-39535-66

Analyte	Result	Qualifier	R0	MD0	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	26		1.3	0.35	mg/Kg	1	✖	8015C	Total/NA
DRO (C10-C28)	740		4.3	0.74	mg/Kg	1	✖	8015C	Total/NA

Client Sample ID: RC4-SC-183

0aL Sample ID: b28-39535-62

Analyte	Result	Qualifier	R0	MD0	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	160		6.9	1.9	mg/Kg	5	✖	8015C	Total/NA
DRO (C10-C28)	1600		8.8	1.5	mg/Kg	2	✖	8015C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-4

Client Sample ID: RC4-SC-118

0aL Sample ID: b28-39535-63

Analyte	Result	Qualifier	R0	MD0	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	480		26	6.9	mg/Kg	20	☼	8015C	Total/NA
DRO (C10-C28)	7600		43	7.3	mg/Kg	10	☼	8015C	Total/NA

Client Sample ID: RC4-SC-111

0aL Sample ID: b28-39535-28

Analyte	Result	Qualifier	R0	MD0	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	1900		68	19	mg/Kg	50	☼	8015C	Total/NA
DRO (C10-C28)	12000		88	15	mg/Kg	20	☼	8015C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94797-6

Method	Method Description	Protocol	Laboratory
8054C	Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	SW861	TAL DEN
8054C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW861	TAL DEN
Moisture	Percent Moisture	EPA	TAL DEN

Protocol References:

EPA = " S Environmental Protection Agency

SW861 = UTest Methods For Evaluating Solid Waste, Physical/Chemical MethodsU Third Edition, November 5981 And Its " pdates.

Laboratory References:

TAL DEN = TestAmerica Denver, 6944 Yarrow Street, Arvada, CO 80002, TEL (707)371-0500

Sample Summary

I nieSt: utaStec l oSsgntiSp l or. P
 j ro/ectWrite: utaStec l XR - y aSpn Q 1

TestAmerica Job ID: 280-95393-C

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-95393-4d	yl C-ul -9C	uoni7	03\80\6 d5:55	03\8d\6 d4:55
280-95393-42	yl C-ul -95	uoni7	03\80\6 d4:00	03\8d\6 d4:55
280-95393-43	yl C-ul -94	uoni7	03\80\6 d4:05	03\8d\6 d4:55
280-95393-4C	yl C-ul -DUj 5	uoni7	03\80\6 d4:d0	03\8d\6 d4:55
280-95393-45	yl C-ul -96	uoni7	03\80\6 d4:d0	03\8d\6 d4:55
280-95393-44	yl C-ul -98	uoni7	03\80\6 d4:d5	03\8d\6 d4:55
280-95393-46	yl C-ul -99	uoni7	03\80\6 d4:20	03\8d\6 d4:55
280-95393-48	yl C-ul -d00	uoni7	03\80\6 d4:25	03\8d\6 d4:55
280-95393-49	yl C-ul -d0d	uoni7	03\80\6 d4:30	03\8d\6 d4:55
280-95393-60	yl C-ul -d02	uoni7	03\80\6 d4:35	03\8d\6 d4:55
280-95393-6d	yl C-ul -d03	uoni7	03\80\6 d4:C0	03\8d\6 d4:55
280-95393-62	yl C-ul -d0C	uoni7	03\80\6 d4:C5	03\8d\6 d4:55
280-95393-63	yl C-ul -d05	uoni7	03\80\6 d4:50	03\8d\6 d4:55
280-95393-6C	yl C-ul -DUj 4	uoni7	03\80\6 d4:50	03\8d\6 d4:55
280-95393-65	yl C-ul -d04	uoni7	03\80\6 d4:55	03\8d\6 d4:55
280-95393-64	yl C-ul -d06	uoni7	03\80\6 d6:00	03\8d\6 d4:55
280-95393-66	yl C-ul -d08	uoni7	03\80\6 d6:05	03\8d\6 d4:55
280-95393-68	yl C-ul -d09	uoni7	03\80\6 d6:d0	03\8d\6 d4:55
280-95393-69	yl C-ul -dd0	uoni7	03\80\6 d6:d5	03\8d\6 d4:55
280-95393-80	yl C-ul -ddd	uoni7	03\80\6 d6:20	03\8d\6 d4:55

Client Sample Results

Instrument: uStec I oSsgntiSp I or. P
 Project: uStec I XR - y aSpn Q 7

TestAmerica Job ID: 280-95393-C

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RCU-SC-9U
 Date Collected: 03/30/1x 15:55
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-41
 MatriP: Solid
 7 percent Solids: 85.9

Analyte	Result	Qualifier	RL	MDL	Qnit	D	7 prepared	Analyzed	Dil Fac
GRO (C4-C10)	1.1	6	1R	0.03K	mpVp	☆	0C05MK 11:26	0C00MK 1C:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	14	9	11 - D X				472432100Y :	472412107/33	D

Client Sample ID: RCU-SC-95
 Date Collected: 03/30/1x 14:00
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-42
 MatriP: Solid
 7 percent Solids: 82.2

Analyte	Result	Qualifier	RL	MDL	Qnit	D	7 prepared	Analyzed	Dil Fac
GRO (C4-C10)	19		1R	0.03K	mpVp	☆	0C05MK 11:26	0C00MK 15:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	5D		11 - D X				472432100Y : 472412103/ 4		D

Client Sample ID: RCU-SC-94
 Date Collected: 03/30/1x 14:05
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-43
 MatriP: Solid
 7 percent Solids: 83.5

Analyte	Result	Qualifier	RL	MDL	Qnit	D	7 prepared	Analyzed	Dil Fac
GRO (C4-C10)	1.5		1R	0.03K	mpVp	☆	0C05MK 11:26	0C00MK 15:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	: 7	9	11 - D X				472432100Y : 472412103/73		D

Client Sample ID: RCU-SC-DQ75
 Date Collected: 03/30/1x 14:10
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-4U
 MatriP: Solid
 7 percent Solids: 8U.1

Analyte	Result	Qualifier	RL	MDL	Qnit	D	7 prepared	Analyzed	Dil Fac
GRO (C4-C10)	14		1R	0.039	mpVp	☆	0C05MK 11:26	0C00MK 16:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	: 5	9	11 - D X				472432100Y :	47241210: /D4	D

Client Sample ID: RCU-SC-9x
 Date Collected: 03/30/1x 14:10
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-45
 MatriP: Solid
 7 percent Solids: 85.x

Analyte	Result	Qualifier	RL	MDL	Qnit	D	7 prepared	Analyzed	Dil Fac
GRO (C4-C10)	1U0	F2	KR0	1R	mpVp	☆	0C05MK 11:26	0C00MK 16:36	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	DX4	90	11 - D X				472432100Y :	47241210: /X	3

Client Sample ID: RCU-SC-98
 Date Collected: 03/30/1x 14:15
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-44
 MatriP: Solid
 7 percent Solids: 84.9

Analyte	Result	Qualifier	RL	MDL	Qnit	D	7 prepared	Analyzed	Dil Fac
GRO (C4-C10)	92		6R	1R	mpVp	☆	0C05MK 11:26	0C00MK 1K:52	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	D43	8	11 - D X				472432100Y	472412101/3	3

TestAmerica DeSver

Client Sample Results

Instrument: uStec I oSsgniSp I or: P
 Project: uStec I XR - y aSpn Q 7

TestAmerica Job ID: 280-95393-C

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RCU-SC-99
 Date Collected: 03/30/1x 14:20
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-4x
 MatriP: Solid
 7 percent Solids: xx.5

Analyte	Result	Qualifier	RL	MDL	Qnit	D	7 prepared	Analyzed	Dil Fac
GRO (C4-C10)	88		3F	0F3	mpVp	☆	0C05MK 11:26	0C0KMK 18:02	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	D33	9	11 - D X				47243D10D	47241D106/7	

Client Sample ID: RCU-SC-100
 Date Collected: 03/30/1x 14:25
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-48
 MatriP: Solid
 7 percent Solids: 82.x

Analyte	Result	Qualifier	RL	MDL	Qnit	D	7 prepared	Analyzed	Dil Fac
GRO (C4-C10)	x1		2F	0RK	mpVp	☆	0C05MK 11:26	0C0KMK 19:0K	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	DX5	9	11 - D X				47243D10D	47241D105/41	

Client Sample ID: RCU-SC-101
 Date Collected: 03/30/1x 14:30
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-49
 MatriP: Solid
 7 percent Solids: 82.2

Analyte	Result	Qualifier	RL	MDL	Qnit	D	7 prepared	Analyzed	Dil Fac
GRO (C4-C10)	U20		15	0R	mpVp	☆	0C05MK 11:26	0C0KMK 19:32	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	34D	90	11 - D X				47243D10D	47241D105/X	D4

Client Sample ID: RCU-SC-102
 Date Collected: 03/30/1x 14:35
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-x0
 MatriP: Solid
 7 percent Solids: 83.x

Analyte	Result	Qualifier	RL	MDL	Qnit	D	7 prepared	Analyzed	Dil Fac
GRO (C4-C10)	190		KR	1R	mpVp	☆	0C05MK 11:26	0C0KMK 19:58	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	7	90	11 - D X				47243D10D	47241D105/36	3

Client Sample ID: RCU-SC-103
 Date Collected: 03/30/1x 14:U0
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-x1
 MatriP: Solid
 7 percent Solids: 90.4

Analyte	Result	Qualifier	RL	MDL	Qnit	D	7 prepared	Analyzed	Dil Fac
GRO (C4-C10)	2x		1R	0RC	mpVp	☆	0C05MK 11:26	0C0KMK 20:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	15		11 - D X				47243D10D	47241D10 4/ X	D

Client Sample ID: RCU-SC-10U
 Date Collected: 03/30/1x 14:U5
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-x2
 MatriP: Solid
 7 percent Solids: 89.U

Analyte	Result	Qualifier	RL	MDL	Qnit	D	7 prepared	Analyzed	Dil Fac
GRO (C4-C10)	23		1R	0R5	mpVp	☆	0C05MK 11:26	0C0KMK 20:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	15		11 - D X				47243D10D	47241D10 4/76	D

TestAmerica DeSver

Client Sample Results

Instrument: LSC-1000
 Project: LSC-1000-XR-1

TestAmerica Job ID: 280-95393-C

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RCU-SC-105
 Date Collected: 03/30/1x 14:50
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-x3
 Matrix: Solid
 Percent Solids: 91.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C10)	24		1B	0B5	mpVp	☆	0005MK 11:26	0008MK 21:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	65		11 - D X				47232100D	4721210 DDX	D

Client Sample ID: RCU-SC-DQ74
 Date Collected: 03/30/1x 14:50
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-xU
 Matrix: Solid
 Percent Solids: 91.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C10)	32		1B	0B5	mpVp	☆	0005MK 11:26	0008MK 21:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a.a.a-Trifluorotoluene	5X		11 - D X				47232100D	4721210 DDX6	D

Client Sample ID: RCU-SC-104
 Date Collected: 03/30/1x 14:55
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-x5
 Matrix: Solid
 Percent Solids: 91.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C10)	28	F2	1B	0B6	mpVp	☆	0005MK 11:26	0008MK 22:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a.a.a-Trifluorotoluene	63		11 - D X				47232100D	4721210 /4X	D

Client Sample ID: RCU-SC-10x
 Date Collected: 03/30/1x 1x:00
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-x4
 Matrix: Solid
 Percent Solids: 88.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C10)	4.9		1B	0B8	mpVp	☆	0005MK 13:1C	0008MK 00:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	63		11 - D X				47232100D/D7	472621044/X	D

Client Sample ID: RCU-SC-108
 Date Collected: 03/30/1x 1x:05
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-xx
 Matrix: Solid
 Percent Solids: 91.U

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C10)	24		1B	0B5	mpVp	☆	0005MK 13:1C	0008MK 00:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a.a.a-Trifluorotoluene	63		11 - D X				47232100D/D7	472621044/3:	D

Client Sample ID: RCU-SC-109
 Date Collected: 03/30/1x 1x:10
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-x8
 Matrix: Solid
 Percent Solids: 90.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C10)	140		6B	1B	mpVp	☆	0005MK 13:1C	0008MK 01:21	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	D37	9B	11 - D X				47232100D/D7	472621044/ D	3

TestAmerica DeSver

Client Sample Results

Instrument: utastec | oSsgntiSp | or. P
 Project: utastec | XR - y aSpn Q 7

TestAmerica Job ID: 280-95393-C

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RCU-SC-110
 Date Collected: 03/30/1x 1x:15
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-x9
 MatriP: Solid
 7 percent Solids: 89.0

Analyte	Result	Qualifier	RL	MDL	Qnit	D	7 prepared	Analyzed	Dil Fac
GRO (C4-C10)	U80		26	6R	mpVp	☆	0C05MK 13:1C	0C08MK 01:06	20
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
a,a,a-Trifluorotoluene	X1:	90	11 - D X	47243210X/D7	472462104/D7:	4			

Client Sample ID: RCU-SC-111
 Date Collected: 03/30/1x 1x:20
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-80
 MatriP: Solid
 7 percent Solids: 89.9

Analyte	Result	Qualifier	RL	MDL	Qnit	D	7 prepared	Analyzed	Dil Fac
GRO (C4-C10)	1900		68	19	mpVp	☆	0C05MK 13:1C	0C08MK 02:11	50
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
a,a,a-Trifluorotoluene	DD54	90	11 - D X	47243210X/D7	472462104 /DD	34			

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RCU-SC-9U
 Date Collected: 03/30/1x 15:55
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-41
 MatriP: Solid
 7 percent Solids: 85.9

Analyte	Result	Qualifier	RL	MDL	Qnit	D	7 prepared	Analyzed	Dil Fac
DRO (C10-C28)	2x00	B	23	3R	mpVp	☆	0C05MK 09:56	0C10MK 18:0K	5
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
o-Terphenyl(QSurr)	D X	80	75 - DD3	472432104/5/3:	472442106/71	3			

Client Sample ID: RCU-SC-95
 Date Collected: 03/30/1x 14:00
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-42
 MatriP: Solid
 7 percent Solids: 82.2

Analyte	Result	Qualifier	RL	MDL	Qnit	D	7 prepared	Analyzed	Dil Fac
DRO (C10-C28)	1900	B	9R	1R	mpVp	☆	0C05MK 09:56	0C10MK 19:15	2
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
o-Terphenyl(QSurr)	D 1	9	75 - DD3	472432104/5/3:	472442106/D3				

Client Sample ID: RCU-SC-94
 Date Collected: 03/30/1x 14:05
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-43
 MatriP: Solid
 7 percent Solids: 83.5

Analyte	Result	Qualifier	RL	MDL	Qnit	D	7 prepared	Analyzed	Dil Fac
DRO (C10-C28)	2000	B	8R	1R	mpVp	☆	0C05MK 09:56	0C10MK 19:03	2
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
o-Terphenyl(QSurr)	D4X		75 - DD3	472432104/5/3:	472442106/7X				

Client Sample ID: RCU-SC-DQ75
 Date Collected: 03/30/1x 14:10
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-4U
 MatriP: Solid
 7 percent Solids: 8U.1

Analyte	Result	Qualifier	RL	MDL	Qnit	D	7 prepared	Analyzed	Dil Fac
DRO (C10-C28)	1800	B	9R	1R	mpVp	☆	0C05MK 09:56	0C10MK 20:12	2
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
o-Terphenyl(QSurr)	D 5	9	75 - DD3	472432104/5/3:	47244210 4/D				

TestAmerica DeSver

Client Sample Results

Instrument: utaStec I oSsgntiSp I or. P
 Project Write: utaStec I XR - y aSpn Q 7

TestAmerica Job ID: 280-95393-C

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RCU-SC-9x
 Date Collected: 03/30/1x 14:10
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-45
 MatriP: Solid
 7ercent Solids: 85.x

Analyte	Result	Qualifier	RL	MDL	Qnit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	2500	B	23	3P	mpVp	☆	0C05MK 09:56	0C10MK 20:00	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	63	80	75 - DD3				47243D1045/3	47244D1047/4	3

Client Sample ID: RCU-SC-98
 Date Collected: 03/30/1x 14:15
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-44
 MatriP: Solid
 7ercent Solids: 84.9

Analyte	Result	Qualifier	RL	MDL	Qnit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	1100	B	02	0R2	mpVp	☆	0C05MK 09:56	0C08MK 0C:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	D67	9	75 - DD3				47243D1045/3	47246D1047/3X	D

Client Sample ID: RCU-SC-99
 Date Collected: 03/30/1x 14:20
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-4x
 MatriP: Solid
 7ercent Solids: xx.5

Analyte	Result	Qualifier	RL	MDL	Qnit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	UU0	B	5P	0R5	mpVp	☆	0C05MK 09:56	0C08MK 05:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	66		75 - DD3				47243D1045/3	47246D1043/ D	D

Client Sample ID: RCU-SC-100
 Date Collected: 03/30/1x 14:25
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-48
 MatriP: Solid
 7ercent Solids: 82.x

Analyte	Result	Qualifier	RL	MDL	Qnit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	580	B	CRK	0PK9	mpVp	☼	0C05MK 09:56	0C08MK 05:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	D4		75 - DD3				47243D1045/3	47246D1043/34	D

Client Sample ID: RCU-SC-101
 Date Collected: 03/30/1x 14:30
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-49
 MatriP: Solid
 7ercent Solids: 82.2

Analyte	Result	Qualifier	RL	MDL	Qnit	D	7repared	Analyzed	Dil Fac
DRO (C10-C28)	380		0P	0R5	mpVp	☆	0C05MK 08:05	0C10MK 19:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	7	9	75 - DD3				47243D1046/73	47244D1045/34	D

Client Sample ID: RCU-SC-102
 Date Collected: 03/30/1x 14:35
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-x0
 MatriP: Solid
 7ercent Solids: 83.x

Analyte	Result	Qualifier	RL	MDL	Qnit	D	7repared	Analyzed	Dil Fac
DRO (C10-C28)	8U0		0R	0R0	mpVp	☆	0C05MK 08:05	0C10MK 19:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	100		75 - DD3				47243D1046/73	47244D1045/37	D

TestAmerica DeSver

Client Sample Results

Instrument: utaStec I oSsgntiSp I or. P
 Project Write: utaStec I XR - y aSpn Q 7

TestAmerica Job ID: 280-95393-C

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RCU-SC-103
 Date Collected: 03/30/1x 14:U0
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-x1
 MatriP: Solid
 7ercent Solids: 90.4

Analyte	Result	J ualifier	RL	MDL	Qnit	D	7 repaired	Analyzed	Dil Fac
DRO (C10-C28)	1200		8R8	1R5	mpV4p	☼	0C05MK 08:C5	0CM0MK 20:19	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	: D		75 - DD3				47243D1046/73	47244D10 4/D5	

Client Sample ID: RCU-SC-10U
 Date Collected: 03/30/1x 14:U5
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-x2
 MatriP: Solid
 7ercent Solids: 89.U

Analyte	Result	J ualifier	RL	MDL	Qnit	D	7 repaired	Analyzed	Dil Fac
DRO (C10-C28)	xU0		0R0	0R5	mpV4p	☼	0C05MK 08:C5	0CM0MK 20:C3	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	1X		75 - DD3				47243D1046/73	47244D10 4/7X	D

Client Sample ID: RCU-SC-105
 Date Collected: 03/30/1x 14:50
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-x3
 MatriP: Solid
 7ercent Solids: 91.3

Analyte	Result	J ualifier	RL	MDL	Qnit	D	7 repaired	Analyzed	Dil Fac
DRO (C10-C28)	2200		20	3R0	mpV4p	☼	0C05MK 08:C5	0CM0MK 21:0K	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	76	908	75 - DD3				47243D1046/73	47244D10 D/41	3

Client Sample ID: RCU-SC-DQ74
 Date Collected: 03/30/1x 14:50
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-xU
 MatriP: Solid
 7ercent Solids: 91.9

Analyte	Result	J ualifier	RL	MDL	Qnit	D	7 repaired	Analyzed	Dil Fac
DRO (C10-C28)	950		0R2	0R2	mpV4p	☼	0C05MK 08:C5	0CM0MK 21:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	36		75 - DD3				47243D1046/73	47244D10 DX	D

Client Sample ID: RCU-SC-104
 Date Collected: 03/30/1x 14:55
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-x5
 MatriP: Solid
 7ercent Solids: 91.8

Analyte	Result	J ualifier	RL	MDL	Qnit	D	7 repaired	Analyzed	Dil Fac
DRO (C10-C28)	500		0R3	0R0	mpV4p	☼	0C05MK 08:C5	0CM0MK 21:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	6X		75 - DD3				47243D1046/73	47244D10 D/3:	D

Client Sample ID: RCU-SC-10x
 Date Collected: 03/30/1x 1x:00
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-x4
 MatriP: Solid
 7ercent Solids: 88.1

Analyte	Result	J ualifier	RL	MDL	Qnit	D	7 repaired	Analyzed	Dil Fac
DRO (C10-C28)	2x0		0R2	0R0	mpV4p	☼	0C05MK 08:C5	0CM0MK 23:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	65		75 - DD3				47243D1046/73	47244D10 X/36	D

TestAmerica DeSver

Client Sample Results

Instrument: uStec I oSsgntiSp I or. P
 Project: uStec I XR - y aSpn Q 7

TestAmerica Job ID: 280-95393-C

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RCU-SC-108
 Date Collected: 03/30/1x 1x:05
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-xx
 Matrix: Solid
 7 percent Solids: 91.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	7 prepared	Analyzed	Dil Fac
DRO (C10-C28)	x100		C3	0.00	mpVp	☆	0005MK 08:05	0001MK 00:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	17		75 - DD3				4721321046/73	472DD1044/ X	D

Client Sample ID: RCU-SC-109
 Date Collected: 03/30/1x 1x:10
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-x8
 Matrix: Solid
 7 percent Solids: 90.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	7 prepared	Analyzed	Dil Fac
DRO (C10-C28)	1400		8.8	1.8	mpVp	☆	0005MK 08:05	0001MK 00:00	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	4		75 - DD3				4721321046/73	472DD1044/71	

Client Sample ID: RCU-SC-110
 Date Collected: 03/30/1x 1x:15
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-x9
 Matrix: Solid
 7 percent Solids: 89.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	7 prepared	Analyzed	Dil Fac
DRO (C10-C28)	x400		C3	0.00	mpVp	☆	0005MK 08:05	0001MK 01:12	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	5	8.0	75 - DD3				4721321046/73	472DD1044/D	D4

Client Sample ID: RCU-SC-111
 Date Collected: 03/30/1x 1x:20
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-80
 Matrix: Solid
 7 percent Solids: 89.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	7 prepared	Analyzed	Dil Fac
DRO (C10-C28)	12000		88	15	mpVp	☆	0005MK 08:05	0001MK 01:36	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	D 74	8.0	75 - DD3				4721321046/73	472DD1044/X	4

General Chemistry

Client Sample ID: RCU-SC-9U
 Date Collected: 03/30/1x 15:55
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-41
 Matrix: Solid
 7 percent Solids: 85.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	7 prepared	Analyzed	Dil Fac
7 percent Moisture	10.1		0.0	0.0	%	-		0001MK 16:06	1
7 percent Solids	85.9		0.0	0.0	%	-		0001MK 16:06	1

Client Sample ID: RCU-SC-95
 Date Collected: 03/30/1x 14:00
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-42
 Matrix: Solid
 7 percent Solids: 82.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	7 prepared	Analyzed	Dil Fac
7 percent Moisture	1x.8		0.0	0.0	%	-		0001MK 16:06	1
7 percent Solids	82.2		0.0	0.0	%	-		0001MK 16:06	1

TestAmerica DeSver

Client Sample Results

Instrument: uataStec | oSsgntiSp | or. P
 Project: uataStec | XR - y aSpn Q 7

TestAmerica Job ID: 280-95393-C

General Chemistry

Client Sample ID: RCU-SC-94
 Date Collected: 03/30/1x 14:05
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-43
 Matrix: Solid
 Percent Solids: 83.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.5		0.0	0.0	%			0001MK 16:06	1
Percent Solids	83.5		0.0	0.0	%			0001MK 16:06	1

Client Sample ID: RCU-SC-DQ75
 Date Collected: 03/30/1x 14:10
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-4U
 Matrix: Solid
 Percent Solids: 8U.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.9		0.0	0.0	%			0001MK 11:08	1
Percent Solids	8U.1		0.0	0.0	%			0001MK 11:08	1

Client Sample ID: RCU-SC-9x
 Date Collected: 03/30/1x 14:10
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-45
 Matrix: Solid
 Percent Solids: 85.x

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	1U.3		0.0	0.0	%			0001MK 16:06	1
Percent Solids	85.x		0.0	0.0	%			0001MK 16:06	1

Client Sample ID: RCU-SC-98
 Date Collected: 03/30/1x 14:15
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-44
 Matrix: Solid
 Percent Solids: 84.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.1		0.0	0.0	%			0001MK 16:06	1
Percent Solids	84.9		0.0	0.0	%			0001MK 16:06	1

Client Sample ID: RCU-SC-99
 Date Collected: 03/30/1x 14:20
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-4x
 Matrix: Solid
 Percent Solids: xx.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22.5		0.0	0.0	%			0001MK 16:06	1
Percent Solids	xx.5		0.0	0.0	%			0001MK 16:06	1

Client Sample ID: RCU-SC-100
 Date Collected: 03/30/1x 14:25
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-48
 Matrix: Solid
 Percent Solids: 82.x

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	1x.3		0.0	0.0	%			0001MK 16:06	1
Percent Solids	82.x		0.0	0.0	%			0001MK 16:06	1

Client Sample ID: RCU-SC-101
 Date Collected: 03/30/1x 14:30
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-49
 Matrix: Solid
 Percent Solids: 82.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	1x.8		0.0	0.0	%			0001MK 16:06	1
Percent Solids	82.2		0.0	0.0	%			0001MK 16:06	1

Client Sample ID: RCU-SC-102
 Date Collected: 03/30/1x 14:35
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-x0
 Matrix: Solid
 Percent Solids: 83.x

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.3		0.0	0.0	%			0001MK 16:06	1
Percent Solids	83.x		0.0	0.0	%			0001MK 16:06	1

TestAmerica DeSver

Client Sample Results

Instrument: uataStec I oSsgntiSp I or. P
 Project: uataStec I XR - y aSpn Q 7

TestAmerica Job ID: 280-95393-C

General Chemistry

Client Sample ID: RCU-SC-103
 Date Collected: 03/30/1x 14:U0
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-x1
 MatriP: Solid
 7ercent Solids: 90.4

Analyte	Result	J ualifier	RL	MDL	Qnit	D	7repared	Analyzed	Dil Fac
7ercent Moisture	9.U		0P	0P	%			0C01MK 16:06	1
7ercent Solids	90.4		0P	0P	%			0C01MK 16:06	1

Client Sample ID: RCU-SC-10U
 Date Collected: 03/30/1x 14:U5
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-x2
 MatriP: Solid
 7ercent Solids: 89.U

Analyte	Result	J ualifier	RL	MDL	Qnit	D	7repared	Analyzed	Dil Fac
7ercent Moisture	10.4		0P	0P	%			0C01MK 16:06	1
7ercent Solids	89.U		0P	0P	%			0C01MK 16:06	1

Client Sample ID: RCU-SC-105
 Date Collected: 03/30/1x 14:50
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-x3
 MatriP: Solid
 7ercent Solids: 91.3

Analyte	Result	J ualifier	RL	MDL	Qnit	D	7repared	Analyzed	Dil Fac
7ercent Moisture	8.x		0P	0P	%			0C01MK 16:06	1
7ercent Solids	91.3		0P	0P	%			0C01MK 16:06	1

Client Sample ID: RCU-SC-DQ7 4
 Date Collected: 03/30/1x 14:50
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-xU
 MatriP: Solid
 7ercent Solids: 91.9

Analyte	Result	J ualifier	RL	MDL	Qnit	D	7repared	Analyzed	Dil Fac
7ercent Moisture	8.1		0P	0P	%			0C01MK 16:06	1
7ercent Solids	91.9		0P	0P	%			0C01MK 16:06	1

Client Sample ID: RCU-SC-104
 Date Collected: 03/30/1x 14:55
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-x5
 MatriP: Solid
 7ercent Solids: 91.8

Analyte	Result	J ualifier	RL	MDL	Qnit	D	7repared	Analyzed	Dil Fac
7ercent Moisture	8.2		0P	0P	%			0C01MK 16:06	1
7ercent Solids	91.8		0P	0P	%			0C01MK 16:06	1

Client Sample ID: RCU-SC-10x
 Date Collected: 03/30/1x 1x:00
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-x4
 MatriP: Solid
 7ercent Solids: 88.1

Analyte	Result	J ualifier	RL	MDL	Qnit	D	7repared	Analyzed	Dil Fac
7ercent Moisture	11.9		0P	0P	%			0C01MK 16:06	1
7ercent Solids	88.1		0P	0P	%			0C01MK 16:06	1

Client Sample ID: RCU-SC-108
 Date Collected: 03/30/1x 1x:05
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-xx
 MatriP: Solid
 7ercent Solids: 91.U

Analyte	Result	J ualifier	RL	MDL	Qnit	D	7repared	Analyzed	Dil Fac
7ercent Moisture	8.4		0P	0P	%			0C01MK 16:06	1
7ercent Solids	91.U		0P	0P	%			0C01MK 16:06	1

Client Sample ID: RCU-SC-109
 Date Collected: 03/30/1x 1x:10
 Date Received: 03/31/1x 14:55

Lab Sample ID: 280-95393-x8
 MatriP: Solid
 7ercent Solids: 90.8

Analyte	Result	J ualifier	RL	MDL	Qnit	D	7repared	Analyzed	Dil Fac
7ercent Moisture	9.2		0P	0P	%			0C01MK 16:06	1
7ercent Solids	90.8		0P	0P	%			0C01MK 16:06	1

TestAmerica DeSver

9



Surrogate Summary

Instrument: uStec I oSgntiSp I or. P
 Project: uStec I XR - y aSpn Q 1

TestAmerica Job ID: 280-95393-C

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	TFT1 (77-123)
280-95393-76	yI C-ul -9C	40 R
280-95393-72	yI C-ul -95	96
280-95393-73	yI C-ul -97	7CR
280-95393-7C	yI C-ul -DMJ 5	79 R
280-95393-75	yI C-ul -94	630 R D
280-95393-75 Uu	yI C-ul -94	636 R D
280-95393-75 UuD	yI C-ul -94	88 D
280-95393-77	yI C-ul -98	605 D
280-95393-74	yI C-ul -99	655 R
280-95393-78	yI C-ul -600	639 R
280-95393-79	yI C-ul -606	506 R D
280-95393-40	yI C-ul -602	2C2 R D
280-95393-46	yI C-ul -603	49
280-95393-42	yI C-ul -60C	49
280-95393-43	yI C-ul -605	89
280-95393-4C	yI C-ul -DMJ 7	93
280-95393-45	yI C-ul -607	85
280-95393-45 Uu	yI C-ul -607	90
280-95393-45 UuD	yI C-ul -607	84
280-95393-47	yI C-ul -604	85
280-95393-44	yI C-ul -608	85
280-95393-48	yI C-ul -609	65CR D
280-95393-49	yI C-ul -660	347 R D
280-95393-80	yI C-ul -666	6690 R D
LI u 280-378640V2-A	Lab I oStronuam. re	93
LI u 280-378682V2-A	Lab I oStronuam. re	93
UB 280-378640V6-A	Uethod BraSk	84
UB 280-378682V6-A	Uethod BraSk	92

Surrogate Legend

TFT = a@a-Trifluorotoluene

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	OTPH1 (49-115)
280-95393-76	yI C-ul -9C	673 D R
280-95393-72	yI C-ul -95	624 R
280-95393-73	yI C-ul -97	603
280-95393-7C	yI C-ul -DMJ 5	629 R
280-95393-75	yI C-ul -94	285 D R
280-95393-75 Uu	yI C-ul -94	066 R
280-95393-75 UuD	yI C-ul -94	633 R
280-95393-77	yI C-ul -98	68CR
280-95393-74	yI C-ul -99	88
280-95393-78	yI C-ul -600	602
280-95393-79	yI C-ul -606	C2 R

TestAmerica DeSver

Surrogate Summary

Line: 1 of 1
 Project: 280-95393-C

TestAmerica Job ID: 280-95393-C

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

(Continued)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	OTPH1 (49-115)	
280-95393-40	yl C-ul -602	77	
280-95393-46	yl C-ul -603	76	
280-95393-42	yl C-ul -60C	43	
280-95393-43	yl C-ul -605	68 R D	
280-95393-4C	yl C-ul -DM 7	58	
280-95393-45	yl C-ul -607	83	
280-95393-45 Uu	yl C-ul -607	85	
280-95393-45 UuD	yl C-ul -607	87	
280-95393-47	yl C-ul -604	89	
280-95393-44	yl C-ul -608	4C	
280-95393-48	yl C-ul -609	70	
280-95393-49	yl C-ul -660	29 D R	
280-95393-80	yl C-ul -666	62 D R	
LI u 280-3786002-A	Lab I oStronuam. re	660	
LI u 280-3786292-A	Lab I oStronuam. re	83	
UB 280-3786006-A	Uethod BræSk	662	
UB 280-3786296-A	Uethod BræSk	87	

Surrogate Legend

1 Tj H = o-Ter. heS, n(ugrr)

QC Sample Results

Instrument: utastec | oSgntiSp | or. P
 Project: utastec | XR - y aSpn Q G

TestAmerica Job ID: 280-95393-C

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Lab Sample ID: MB 280-368140/1-A
 Matrix: Solid
 Analysis Batch: 368798

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 368140

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
(y G 6 1-I) ON	KD		) P2	0 P33	mpV4p		0C05Y7)) :21	0C07Y7) 3:39)
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	14		44 - 9D				X72X: 2439D5	X72X4243 0 /	9

Lab Sample ID: LCS 280-368140/2-A
 Matrix: Solid
 Analysis Batch: 368798

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 368140

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
(y G 6 1-I) ON	5 P50	1 P05		mpV4p		) ) 0	85 -) 53		
Surrogate	%Recovery	LCS Qualifier	Limits						
a,a,a-Trifluorotoluene	/		44 - 9D						

Lab Sample ID: 280-95393-65 MS
 Matrix: Solid
 Analysis Batch: 368798

Client Sample ID: RC7-SC-94
 Prep Type: Total/NA
 Prep Batch: 368140

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
(y G 6 1-I) ON	) 00	F2	1 P20	) 55	C	mpV4p	✱	) 7C	85 -) 53
Surrogate	%Recovery	MS Qualifier	Limits						
a,a,a-Trifluorotoluene	9 9	8 36	44 - 9D						

Lab Sample ID: 280-95393-65 MSD
 Matrix: Solid
 Analysis Batch: 368798

Client Sample ID: RC7-SC-94
 Prep Type: Total/NA
 Prep Batch: 368140

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
(y G 6 1-I) ON	) 00	F2	1 P09	85 P1	CF2	mpV4p	✱	-902	85 -) 53	58	30
Surrogate	%Recovery	MSD Qualifier	Limits								
a,a,a-Trifluorotoluene	11	6	44 - 9D								

Lab Sample ID: 280-95393-45 MS
 Matrix: Solid
 Analysis Batch: 368798

Client Sample ID: RC7-SC-106
 Prep Type: Total/NA
 Prep Batch: 368140

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits		
(y G 6 1-I) ON	28	F2	1 P0C	09 P3	C	mpV4p	✱	359	85 -) 53		
Surrogate	%Recovery	MS Qualifier	Limits								
a,a,a-Trifluorotoluene	/ X		44 - 9D								

TestAmerica DeSver

QC Sample Results

Instrument: utastec | oSgntiSp | or. P
 Project: utastec | XR - y aSpn Q G

TestAmerica Job ID: 280-95393-C

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics) (Continued)

Lab Sample ID: 280-95393-45 MSD

Matrix: Solid

Analysis Batch: 368798

Client Sample ID: RC7-SC-106

Prep Type: Total/NA

Prep Batch: 368140

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
(y G 6 1-I) ON	28	F2	103	350	CF2	mpVp	-	22	85 -) 53	3C	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
a,a,a-Trifluorotoluene	14		44 - 9D								

Lab Sample ID: MB 280-368182/1-A

Matrix: Solid

Analysis Batch: 368533

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 368182

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
(y G 6 1-I) ON	KD		02	003	mpVp	-	0005V7) 3:) C	0007V7 23: C2)
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	/ D		44 - 9D				X72X 243 07	X72X4243 07D	9

Lab Sample ID: LCS 280-368182/2-A

Matrix: Solid

Analysis Batch: 368533

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 368182

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
(y G 6 1-I) ON	500	500		mpVp	-	07	85 -) 53		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
a,a,a-Trifluorotoluene	/		44 - 9D						

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 280-368100/1-A

Matrix: Solid

Analysis Batch: 368632

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 368100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dy G 6) 0-I 28N	KD		00	008	mpVp	-	0005V7 08: C5	00V0V7) 8: C))
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	99D		7/ - 99:				X72X 243107	X72X2431079	9

Lab Sample ID: LCS 280-368100/2-A

Matrix: Solid

Analysis Batch: 368632

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 368100

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Dy G 6) 0-I 28N	117	130		mpVp	-	95	53 -)) 5		

TestAmerica DeSver

QC Sample Results

Instrument: LSC 280-368100/2-A
 Project: White: LSC 280-368100/2-A

TestAmerica Job ID: 280-95393-C

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: LCS 280-368100/2-A
 Matrix: Solid
 Analysis Batch: 368632

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 368100

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl(Surr)	99X		7/ - 99:

Lab Sample ID: 280-95393-45 MS
 Matrix: Solid
 Analysis Batch: 368632

Client Sample ID: RC7-SC-106
 Prep Type: Total/NA
 Prep Batch: 368100

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Dy G 6) 0-I 28N	500		198	511	C	mp4p	✖	99	51 -) 5		
Surrogate	MS %Recovery	MS Qualifier	Limits								
o-Terphenyl(Surr)	1:		7/ - 99:								

Lab Sample ID: 280-95393-45 MSD
 Matrix: Solid
 Analysis Batch: 368632

Client Sample ID: RC7-SC-106
 Prep Type: Total/NA
 Prep Batch: 368100

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dy G 6) 0-I 28N	500		7) 8	532	C	mp4p	✖	50	51 -) 5	1	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
o-Terphenyl(3Surr)	15		7/ - 99:								

Lab Sample ID: MB 280-368129/1-A
 Matrix: Solid
 Analysis Batch: 368506

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 368129

Print Date: 06/12/2019									
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dy G 6) 0-I 28N	) 2C J		08	018	mp4p	-	00057 7 09:51	00077 7) 5:5C)
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	15		7/ - 99:				X72: 243/ 0 5	X724243: 0 7	9

Lab Sample ID: LCS 280-368129/2-A
 Matrix: Solid
 Analysis Batch: 368506

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 368129

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dy G 6) 0-I 28N	117	728		mp4p	-) 08	53 -) 5
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
o-Terphenyl(Surr)	1		7/ - 99:				

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QC Sample Results

Line: 1 of 1
 Project: 280-95393-C

TestAmerica Job ID: 280-95393-C

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: 280-95393-65 MS

Matrix: Solid

Analysis Batch: 368506

Client Sample ID: RC7-SC-94

Prep Type: Total/NA

Prep Batch: 368129

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Dy G 6) 0-I 28N	2500	B	7715	2C30	E C	mpVp	✱	-) 21	51 -) 5
Surrogate	%Recovery	MS Qualifier	Limits						
o-Terphenyl(Surr)	799	8	7/ - 99:						

Lab Sample ID: 280-95393-65 MSD

Matrix: Solid

Analysis Batch: 368506

Client Sample ID: RC7-SC-94

Prep Type: Total/NA

Prep Batch: 368129

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Dy G 6) 0-I 28N	2500	B	7515	3) 30	E CF2	mpVp	✱	805	51 -) 5	25	23
Surrogate	%Recovery	MSD Qualifier	Limits								
o-Terphenyl(Surr)	9	8	7/ - 99:								

Method: Moisture - Percent Moisture

Lab Sample ID: 280-95393-67 DU

Matrix: Solid

Analysis Batch: 368507

Client Sample ID: RC7-SC-DUP5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
MerceSt Moistgre	515		515		%		5	20
MerceSt uoids	807		807		%		015	20

TestAmerica DeSver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95797-1

GC VOA

Prep Batch: 367815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-34	RC1-SC-91	Total/NA	Solid	5075	
280-95797-32	RC1-SC-95	Total/NA	Solid	5075	
280-95797-37	RC1-SC-93	Total/NA	Solid	5075	
280-95797-31	RC1-SC-D6 P5	Total/NA	Solid	5075	
280-95797-35	RC1-SC-9M	Total/NA	Solid	5075	
280-95797-33	RC1-SC-98	Total/NA	Solid	5075	
280-95797-3M	RC1-SC-99	Total/NA	Solid	5075	
280-95797-38	RC1-SC-400	Total/NA	Solid	5075	
280-95797-39	RC1-SC-404	Total/NA	Solid	5075	
280-95797-M0	RC1-SC-402	Total/NA	Solid	5075	
280-95797-M1	RC1-SC-407	Total/NA	Solid	5075	
280-95797-M2	RC1-SC-401	Total/NA	Solid	5075	
280-95797-M7	RC1-SC-405	Total/NA	Solid	5075	
280-95797-MI	RC1-SC-D6 P3	Total/NA	Solid	5075	
280-95797-M5	RC1-SC-403	Total/NA	Solid	5075	
B h 280-7384M0/4-A	Betkod hlanL	Total/NA	Solid	5075	
vCS 280-7384M0/2-A	vab Control Sample	Total/NA	Solid	5075	
280-95797-35 B S	RC1-SC-9M	Total/NA	Solid	5075	
280-95797-35 B SD	RC1-SC-9M	Total/NA	Solid	5075	
280-95797-M5 B S	RC1-SC-403	Total/NA	Solid	5075	
280-95797-M5 B SD	RC1-SC-403	Total/NA	Solid	5075	

Prep Batch: 367870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-M8	RC1-SC-40M	Total/NA	Solid	5075	
280-95797-MM	RC1-SC-408	Total/NA	Solid	5075	
280-95797-M8	RC1-SC-409	Total/NA	Solid	5075	
280-95797-M9	RC1-SC-440	Total/NA	Solid	5075	
280-95797-80	RC1-SC-444	Total/NA	Solid	5075	
B h 280-738482/4-A	Betkod hlanL	Total/NA	Solid	5075	
vCS 280-738482/2-A	vab Control Sample	Total/NA	Solid	5075	

Analysis Batch: 367427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-34	RC1-SC-91	Total/NA	Solid	8045C	7384M0
280-95797-32	RC1-SC-95	Total/NA	Solid	8045C	7384M0
280-95797-37	RC1-SC-93	Total/NA	Solid	8045C	7384M0
280-95797-31	RC1-SC-D6 P5	Total/NA	Solid	8045C	7384M0
280-95797-35	RC1-SC-9M	Total/NA	Solid	8045C	7384M0
280-95797-33	RC1-SC-98	Total/NA	Solid	8045C	7384M0
280-95797-3M	RC1-SC-99	Total/NA	Solid	8045C	7384M0
280-95797-38	RC1-SC-400	Total/NA	Solid	8045C	7384M0
280-95797-39	RC1-SC-404	Total/NA	Solid	8045C	7384M0
280-95797-M0	RC1-SC-402	Total/NA	Solid	8045C	7384M0
280-95797-M1	RC1-SC-407	Total/NA	Solid	8045C	7384M0
280-95797-M2	RC1-SC-401	Total/NA	Solid	8045C	7384M0
280-95797-M7	RC1-SC-405	Total/NA	Solid	8045C	7384M0
280-95797-MI	RC1-SC-D6 P3	Total/NA	Solid	8045C	7384M0
280-95797-M5	RC1-SC-403	Total/NA	Solid	8045C	7384M0
B h 280-7384M0/4-A	Betkod hlanL	Total/NA	Solid	8045C	7384M0
vCS 280-7384M0/2-A	vab Control Sample	Total/NA	Solid	8045C	7384M0

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95797-1

GC VOA (Continued)

Analysis Batch: 367427 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-35 B S	RC1-SC-9M	Total/NA	Solid	8045C	7384M
280-95797-35 B SD	RC1-SC-9M	Total/NA	Solid	8045C	7384M
280-95797-M5 B S	RC1-SC-403	Total/NA	Solid	8045C	7384M
280-95797-M5 B SD	RC1-SC-403	Total/NA	Solid	8045C	7384M

Analysis Batch: 367933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-M8	RC1-SC-40M	Total/NA	Solid	8045C	738482
280-95797-MM	RC1-SC-408	Total/NA	Solid	8045C	738482
280-95797-M8	RC1-SC-409	Total/NA	Solid	8045C	738482
280-95797-M8	RC1-SC-440	Total/NA	Solid	8045C	738482
280-95797-80	RC1-SC-444	Total/NA	Solid	8045C	738482
B h 280-738482/4-A	Betkod hlanL	Total/NA	Solid	8045C	738482
vCS 280-738482/2-A	vab Control Sample	Total/NA	Solid	8045C	738482

GC Semi VOA

Prep Batch: 367855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-39	RC1-SC-404	Total/NA	Solid	7513	
280-95797-M0	RC1-SC-402	Total/NA	Solid	7513	
280-95797-M4	RC1-SC-407	Total/NA	Solid	7513	
280-95797-M2	RC1-SC-401	Total/NA	Solid	7513	
280-95797-M7	RC1-SC-405	Total/NA	Solid	7513	
280-95797-M1	RC1-SC-D6 P3	Total/NA	Solid	7513	
280-95797-M5	RC1-SC-403	Total/NA	Solid	7513	
280-95797-M8	RC1-SC-40M	Total/NA	Solid	7513	
280-95797-MM	RC1-SC-408	Total/NA	Solid	7513	
280-95797-M8	RC1-SC-409	Total/NA	Solid	7513	
280-95797-M8	RC1-SC-440	Total/NA	Solid	7513	
280-95797-80	RC1-SC-444	Total/NA	Solid	7513	
B h 280-738400/4-A	Betkod hlanL	Total/NA	Solid	7513	
vCS 280-738400/2-A	vab Control Sample	Total/NA	Solid	7513	
280-95797-M5 B S	RC1-SC-403	Total/NA	Solid	7513	
280-95797-M5 B SD	RC1-SC-403	Total/NA	Solid	7513	

Prep Batch: 367802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-34	RC1-SC-91	Total/NA	Solid	7513	
280-95797-32	RC1-SC-95	Total/NA	Solid	7513	
280-95797-37	RC1-SC-93	Total/NA	Solid	7513	
280-95797-31	RC1-SC-D6 P5	Total/NA	Solid	7513	
280-95797-35	RC1-SC-9M	Total/NA	Solid	7513	
280-95797-33	RC1-SC-98	Total/NA	Solid	7513	
280-95797-3M	RC1-SC-99	Total/NA	Solid	7513	
280-95797-38	RC1-SC-400	Total/NA	Solid	7513	
B h 280-738429/4-A	Betkod hlanL	Total/NA	Solid	7513	
vCS 280-738429/2-A	vab Control Sample	Total/NA	Solid	7513	
280-95797-35 B S	RC1-SC-9M	Total/NA	Solid	7513	
280-95797-35 B SD	RC1-SC-9M	Total/NA	Solid	7513	

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95797-1

GC Semi VOA (Continued)

Analysis Batch: 367956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-33	RC1-SC-98	Total/NA	Solid	8045C	738429
280-95797-3M	RC1-SC-99	Total/NA	Solid	8045C	738429
280-95797-38	RC1-SC-400	Total/NA	Solid	8045C	738429
B h 280-738429/4-A	Betkod hlanL	Total/NA	Solid	8045C	738429
vCS 280-738429/2-A	vab Control Sample	Total/NA	Solid	8045C	738429
280-95797-35 B S	RC1-SC-9M	Total/NA	Solid	8045C	738429
280-95797-35 B SD	RC1-SC-9M	Total/NA	Solid	8045C	738429

Analysis Batch: 367635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-34	RC1-SC-91	Total/NA	Solid	8045C	738429
280-95797-32	RC1-SC-95	Total/NA	Solid	8045C	738429
280-95797-37	RC1-SC-93	Total/NA	Solid	8045C	738429
280-95797-31	RC1-SC-D6 P5	Total/NA	Solid	8045C	738429
280-95797-35	RC1-SC-9M	Total/NA	Solid	8045C	738429

Analysis Batch: 367630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-39	RC1-SC-404	Total/NA	Solid	8045C	738400
280-95797-M0	RC1-SC-402	Total/NA	Solid	8045C	738400
280-95797-M4	RC1-SC-407	Total/NA	Solid	8045C	738400
280-95797-M2	RC1-SC-401	Total/NA	Solid	8045C	738400
280-95797-M7	RC1-SC-405	Total/NA	Solid	8045C	738400
280-95797-M1	RC1-SC-D6 P3	Total/NA	Solid	8045C	738400
280-95797-M5	RC1-SC-403	Total/NA	Solid	8045C	738400
280-95797-M8	RC1-SC-40M	Total/NA	Solid	8045C	738400
280-95797-MM	RC1-SC-408	Total/NA	Solid	8045C	738400
280-95797-M8	RC1-SC-409	Total/NA	Solid	8045C	738400
280-95797-M0	RC1-SC-440	Total/NA	Solid	8045C	738400
280-95797-80	RC1-SC-444	Total/NA	Solid	8045C	738400
B h 280-738400/4-A	Betkod hlanL	Total/NA	Solid	8045C	738400
vCS 280-738400/2-A	vab Control Sample	Total/NA	Solid	8045C	738400
280-95797-M5 B S	RC1-SC-403	Total/NA	Solid	8045C	738400
280-95797-M5 B SD	RC1-SC-403	Total/NA	Solid	8045C	738400

General Chemistry

Analysis Batch: 361620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-34	RC1-SC-91	Total/NA	Solid	B oisture	
280-95797-32	RC1-SC-95	Total/NA	Solid	B oisture	
280-95797-37	RC1-SC-93	Total/NA	Solid	B oisture	
280-95797-35	RC1-SC-9M	Total/NA	Solid	B oisture	
280-95797-33	RC1-SC-98	Total/NA	Solid	B oisture	
280-95797-3M	RC1-SC-99	Total/NA	Solid	B oisture	
280-95797-38	RC1-SC-400	Total/NA	Solid	B oisture	
280-95797-39	RC1-SC-404	Total/NA	Solid	B oisture	
280-95797-M0	RC1-SC-402	Total/NA	Solid	B oisture	
280-95797-M4	RC1-SC-407	Total/NA	Solid	B oisture	
280-95797-M2	RC1-SC-401	Total/NA	Solid	B oisture	

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95797-1

General Chemistry (Continued)

Analysis Batch: 361620 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-M7	RC1-SC-405	Total/NA	Solid	B oisture	
280-95797-MI	RC1-SC-D6 P3	Total/NA	Solid	B oisture	
280-95797-M5	RC1-SC-403	Total/NA	Solid	B oisture	
280-95797-M8	RC1-SC-40M	Total/NA	Solid	B oisture	
280-95797-MM	RC1-SC-408	Total/NA	Solid	B oisture	
280-95797-M8	RC1-SC-409	Total/NA	Solid	B oisture	
280-95797-M8	RC1-SC-440	Total/NA	Solid	B oisture	
280-95797-80	RC1-SC-444	Total/NA	Solid	B oisture	

Analysis Batch: 367954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95797-31	RC1-SC-D6 P5	Total/NA	Solid	B oisture	
280-95797-31 D6	RC1-SC-D6 P5	Total/NA	Solid	B oisture	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94797-6

Client Sample ID: RC4-SC-54

Date Collecte/ : 03/30/17 10:59

Date Receive/ : 03/31/17 11:59

Lab Sample ID: 820-59353-1M

x atrid: Soli/

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Analysis	3 oisture		5			7L1L92	06/05/51 5L:6L	RS3	TAE DNW

Client Sample ID: RC4-SC-54

Date Collecte/ : 03/30/17 10:59

Date Receive/ : 03/31/17 11:59

Lab Sample ID: 820-59353-1M

x atrid: Soli/

Percent Soli/ s: 29.5

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Prep	4074			4.52 g	4 mE	7L8510	06/04/51 55:2L	TN3	TAE DNW
Total/WA	Analysis	8054C		5	0.5 mE	4 mE	7L8698	06/01/51 56:44	MDM	TAE DNW
Total/WA	Prep	746L			70.4 g	5 mE	7L8529	06/04/51 09:4L	JDK	TAE DNW
Total/WA	Analysis	8054C		4			7L8L70	06/50/51 58:61	TN3	TAE DNW

Client Sample ID: RC4-SC-59

Date Collecte/ : 03/30/17 11:00

Date Receive/ : 03/31/17 11:59

Lab Sample ID: 820-59353-18

x atrid: Soli/

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Analysis	3 oisture		5			7L1L92	06/05/51 5L:6L	RS3	TAE DNW

Client Sample ID: RC4-SC-59

Date Collecte/ : 03/30/17 11:00

Date Receive/ : 03/31/17 11:59

Lab Sample ID: 820-59353-18

x atrid: Soli/

Percent Soli/ s: 28.8

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Prep	4074			4.28 g	4 mE	7L8510	06/04/51 55:2L	TN3	TAE DNW
Total/WA	Analysis	8054C		5	0.5 mE	4 mE	7L8698	06/01/51 54:20	MDM	TAE DNW
Total/WA	Prep	746L			70.7 g	5 mE	7L8529	06/04/51 09:4L	JDK	TAE DNW
Total/WA	Analysis	8054C		2			7L8L70	06/50/51 59:54	TN3	TAE DNW

Client Sample ID: RC4-SC-51

Date Collecte/ : 03/30/17 11:09

Date Receive/ : 03/31/17 11:59

Lab Sample ID: 820-59353-13

x atrid: Soli/

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Analysis	3 oisture		5			7L1L92	06/05/51 5L:6L	RS3	TAE DNW

Client Sample ID: RC4-SC-51

Date Collecte/ : 03/30/17 11:09

Date Receive/ : 03/31/17 11:59

Lab Sample ID: 820-59353-13

x atrid: Soli/

Percent Soli/ s: 23.9

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Prep	4074			4.70 g	4 mE	7L8510	06/04/51 55:2L	TN3	TAE DNW

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94797-6

Client Sample ID: RC4-SC-51

Lab Sample ID: 820-59353-13

Date Collecte/ : 03/30/17 MI:09

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Percent Soli/ s: 23.9

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Analysis	8054C		5	0.5 mE	4 mE	7L8698	06/01/51 54:64	MDM	TAE DNW
Total/WA	Prep	746L			77.0 g	5 mE	7L8529	06/04/51 09:4L	JDK	TAE DNW
Total/WA	Analysis	8054C		2			7L8L70	06/50/51 59:67	TN3	TAE DNW

Client Sample ID: RC4-SC-DUP9

Lab Sample ID: 820-59353-14

Date Collecte/ : 03/30/17 MI:10

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Analysis	3 oisture		5			7L8406	06/01/51 55:08	A5D	TAE DNW

Client Sample ID: RC4-SC-DUP9

Lab Sample ID: 820-59353-14

Date Collecte/ : 03/30/17 MI:10

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Percent Soli/ s: 24.1M

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Prep	4074			6.90 g	4 mE	7L8510	06/04/51 55:2L	TN3	TAE DNW
Total/WA	Analysis	8054C		5	0.5 mE	4 mE	7L8698	06/01/51 5L:50	MDM	TAE DNW
Total/WA	Prep	746L			70.6 g	5 mE	7L8529	06/04/51 09:4L	JDK	TAE DNW
Total/WA	Analysis	8054C		2			7L8L70	06/50/51 20:52	TN3	TAE DNW

Client Sample ID: RC4-SC-5v

Lab Sample ID: 820-59353-19

Date Collecte/ : 03/30/17 MI:10

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Analysis	3 oisture		5			7L1L92	06/05/51 5L:6L	RS3	TAE DNW

Client Sample ID: RC4-SC-5v

Lab Sample ID: 820-59353-19

Date Collecte/ : 03/30/17 MI:10

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Percent Soli/ s: 29.v

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Prep	4074			4.00 g	4 mE	7L8510	06/04/51 55:2L	TN3	TAE DNW
Total/WA	Analysis	8054C		4	0.5 mE	4 mE	7L8698	06/01/51 5L:7L	MDM	TAE DNW
Total/WA	Prep	746L			70.2 g	5 mE	7L8529	06/04/51 09:4L	JDK	TAE DNW
Total/WA	Analysis	8054C		4			7L8L70	06/50/51 20:60	TN3	TAE DNW

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94797-6

Client Sample ID: RC4-SC-52

Lab Sample ID: 820-59353-11

Date Collecte/ : 03/30/17 MI:MB

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Analysis	3 oisture		5			7L1L92	06/05/17 5L:6L	RS3	TAE DNW

Client Sample ID: RC4-SC-52

Lab Sample ID: 820-59353-11

Date Collecte/ : 03/30/17 MI:MB

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Percent Soli/ s: 21.5

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Prep	4074			4.0L g	4 mE	7L8510	06/04/17 55:2L	TN3	TAE DNW
Total/WA	Analysis	8054C		4	0.5 mE	4 mE	7L8698	06/01/17 51:42	MDM	TAE DNW
Total/WA	Prep	746L			72.4 g	5 mE	7L8529	06/04/17 09:4L	JDK	TAE DNW
Total/WA	Analysis	8054C		5			7L840L	06/08/17 06:47	TN3	TAE DNW

Client Sample ID: RC4-SC-55

Lab Sample ID: 820-59353-1v

Date Collecte/ : 03/30/17 MI:80

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Analysis	3 oisture		5			7L1L92	06/05/17 5L:6L	RS3	TAE DNW

Client Sample ID: RC4-SC-55

Lab Sample ID: 820-59353-1v

Date Collecte/ : 03/30/17 MI:80

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Percent Soli/ s: vv.9

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Prep	4074			4.0L g	4 mE	7L8510	06/04/17 55:2L	TN3	TAE DNW
Total/WA	Analysis	8054C		2	0.5 mE	4 mE	7L8698	06/01/17 58:62	MDM	TAE DNW
Total/WA	Prep	746L			70.8 g	5 mE	7L8529	06/04/17 09:4L	JDK	TAE DNW
Total/WA	Analysis	8054C		5			7L840L	06/08/17 04:25	TN3	TAE DNW

Client Sample ID: RC4-SC-M00

Lab Sample ID: 820-59353-12

Date Collecte/ : 03/30/17 MI:89

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Analysis	3 oisture		5			7L1L92	06/05/17 5L:6L	RS3	TAE DNW

Client Sample ID: RC4-SC-M00

Lab Sample ID: 820-59353-12

Date Collecte/ : 03/30/17 MI:89

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Percent Soli/ s: 28.v

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Prep	4074			4.52 g	4 mE	7L8510	06/04/17 55:2L	TN3	TAE DNW

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94797-6

Client Sample ID: RC4-SC-M00

Lab Sample ID: 820-59353-12

Date Collecte/ : 03/30/17 MI:89

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Percent Soli/ s: 28.v

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Analysis	8054C		2	0.5 mE	4 mE	7L8698	06/01/51 59:01	MDM	TAE DNW
Total/WA	Prep	746L			75.5 g	5 mE	7L8529	06/04/51 09:4L	JDK	TAE DNW
Total/WA	Analysis	8054C		5			7L840L	06/08/51 04:40	TN3	TAE DNW

Client Sample ID: RC4-SC-M0M

Lab Sample ID: 820-59353-15

Date Collecte/ : 03/30/17 MI:30

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Analysis	3 oisture		5			7L1L92	06/05/51 5L:6L	RS3	TAE DNW

Client Sample ID: RC4-SC-M0M

Lab Sample ID: 820-59353-15

Date Collecte/ : 03/30/17 MI:30

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Percent Soli/ s: 28.8

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Prep	4074			6.98 g	4 mE	7L8510	06/04/51 55:2L	TN3	TAE DNW
Total/WA	Analysis	8054C		50	0.5 mE	4 mE	7L8698	06/01/51 59:72	MDM	TAE DNW
Total/WA	Prep	746L			77.0 g	5 mE	7L8500	06/04/51 08:64	JDK	TAE DNW
Total/WA	Analysis	8054C		5			7L8L72	06/50/51 59:70	TN3	TAE DNW

Client Sample ID: RC4-SC-M08

Lab Sample ID: 820-59353-v0

Date Collecte/ : 03/30/17 MI:39

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Analysis	3 oisture		5			7L1L92	06/05/51 5L:6L	RS3	TAE DNW

Client Sample ID: RC4-SC-M08

Lab Sample ID: 820-59353-v0

Date Collecte/ : 03/30/17 MI:39

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Percent Soli/ s: 23.v

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Prep	4074			4.54 g	4 mE	7L8510	06/04/51 55:2L	TN3	TAE DNW
Total/WA	Analysis	8054C		4	0.5 mE	4 mE	7L8698	06/01/51 59:48	MDM	TAE DNW
Total/WA	Prep	746L			70.6 g	5 mE	7L8500	06/04/51 08:64	JDK	TAE DNW
Total/WA	Analysis	8054C		5			7L8L72	06/50/51 59:46	TN3	TAE DNW

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94797-6

Client Sample ID: RC4-SC-M03

Lab Sample ID: 820-59353-vM

Date Collecte/ : 03/30/17 MI:40

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Analysis	3 oisture		5			7L1L92	06/05/11 5L:6L	RS3	TAE DNW

Client Sample ID: RC4-SC-M03

Lab Sample ID: 820-59353-vM

Date Collecte/ : 03/30/17 MI:40

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Percent Soli/ s: 50.1

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Prep	4074			4.27 g	4 mE	7L8510	06/04/11 55:2L	TN3	TAE DNW
Total/WA	Analysis	8054C		5	0.5 mE	4 mE	7L8698	06/01/11 20:27	MDM	TAE DNW
Total/WA	Prep	746L			70.5 g	5 mE	7L8500	06/04/11 08:64	JDK	TAE DNW
Total/WA	Analysis	8054C		2			7L8L72	06/50/11 20:59	TN3	TAE DNW

Client Sample ID: RC4-SC-M04

Lab Sample ID: 820-59353-v8

Date Collecte/ : 03/30/17 MI:49

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Analysis	3 oisture		5			7L1L92	06/05/11 5L:6L	RS3	TAE DNW

Client Sample ID: RC4-SC-M04

Lab Sample ID: 820-59353-v8

Date Collecte/ : 03/30/17 MI:49

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Percent Soli/ s: 25.4

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Prep	4074			4.26 g	4 mE	7L8510	06/04/11 55:2L	TN3	TAE DNW
Total/WA	Analysis	8054C		5	0.5 mE	4 mE	7L8698	06/01/11 20:68	MDM	TAE DNW
Total/WA	Prep	746L			70.4 g	5 mE	7L8500	06/04/11 08:64	JDK	TAE DNW
Total/WA	Analysis	8054C		5			7L8L72	06/50/11 20:67	TN3	TAE DNW

Client Sample ID: RC4-SC-M09

Lab Sample ID: 820-59353-v3

Date Collecte/ : 03/30/17 MI:90

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Analysis	3 oisture		5			7L1L92	06/05/11 5L:6L	RS3	TAE DNW

Client Sample ID: RC4-SC-M09

Lab Sample ID: 820-59353-v3

Date Collecte/ : 03/30/17 MI:90

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Percent Soli/ s: 5M3

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Prep	4074			4.01 g	4 mE	7L8510	06/04/11 55:2L	TN3	TAE DNW

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94797-6

Client Sample ID: RC4-SC-M09

Lab Sample ID: 820-59353-v3

Date Collecte/ : 03/30/17 MI:90

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Percent Soli/ s: 5M3

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Analysis	8054C		5	0.5 mE	4 mE	7L8698	06/01/51 25:57	MDM	TAE DNW
Total/WA	Prep	746L			77.0 g	5 mE	7L8500	06/04/51 08:64	JDK	TAE DNW
Total/WA	Analysis	8054C		4			7L8L72	06/50/51 25:01	TN3	TAE DNW

Client Sample ID: RC4-SC-DUP1

Lab Sample ID: 820-59353-v4

Date Collecte/ : 03/30/17 MI:90

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Analysis	3 oisture		5			7L1L92	06/05/51 5L:6L	RS3	TAE DNW

Client Sample ID: RC4-SC-DUP1

Lab Sample ID: 820-59353-v4

Date Collecte/ : 03/30/17 MI:90

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Percent Soli/ s: 5M5

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Prep	4074			4.06 g	4 mE	7L8510	06/04/51 55:2L	TN3	TAE DNW
Total/WA	Analysis	8054C		5	0.5 mE	4 mE	7L8698	06/01/51 25:78	MDM	TAE DNW
Total/WA	Prep	746L			70.8 g	5 mE	7L8500	06/04/51 08:64	JDK	TAE DNW
Total/WA	Analysis	8054C		5			7L8L72	06/50/51 25:72	TN3	TAE DNW

Client Sample ID: RC4-SC-M01

Lab Sample ID: 820-59353-v9

Date Collecte/ : 03/30/17 MI:99

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Analysis	3 oisture		5			7L1L92	06/05/51 5L:6L	RS3	TAE DNW

Client Sample ID: RC4-SC-M01

Lab Sample ID: 820-59353-v9

Date Collecte/ : 03/30/17 MI:99

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Percent Soli/ s: 5M2

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Prep	4074			6.81 g	4 mE	7L8510	06/04/51 55:2L	TN3	TAE DNW
Total/WA	Analysis	8054C		5	0.5 mE	4 mE	7L8698	06/01/51 22:07	MDM	TAE DNW
Total/WA	Prep	746L			70.5 g	5 mE	7L8500	06/04/51 08:64	JDK	TAE DNW
Total/WA	Analysis	8054C		5			7L8L72	06/50/51 25:4L	TN3	TAE DNW

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94797-6

Client Sample ID: RC4-SC-M0v

Lab Sample ID: 820-59353-v1

Date Collecte/ : 03/30/17 M:00

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Analysis	3 oisture		5			7L1L92	06/05/17 5L:6L	RS3	TAE DNW

Client Sample ID: RC4-SC-M0v

Lab Sample ID: 820-59353-v1

Date Collecte/ : 03/30/17 M:00

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Percent Soli/ s: 22.M

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Prep	4074			6.92 g	4 mE	7L8582	06/04/17 57:56	TN3	TAE DNW
Total/WA	Analysis	8054C		5	0.5 mE	4 mE	7L8477	06/08/17 00:72	MDM	TAE DNW
Total/WA	Prep	746L			72.8 g	5 mE	7L8500	06/04/17 08:64	JDK	TAE DNW
Total/WA	Analysis	8054C		5			7L8L72	06/50/17 27:48	TN3	TAE DNW

Client Sample ID: RC4-SC-M02

Lab Sample ID: 820-59353-vv

Date Collecte/ : 03/30/17 M:09

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Analysis	3 oisture		5			7L1L92	06/05/17 5L:6L	RS3	TAE DNW

Client Sample ID: RC4-SC-M02

Lab Sample ID: 820-59353-vv

Date Collecte/ : 03/30/17 M:09

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Percent Soli/ s: 5M4

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Prep	4074			4.02 g	4 mE	7L8582	06/04/17 57:56	TN3	TAE DNW
Total/WA	Analysis	8054C		5	0.5 mE	4 mE	7L8477	06/08/17 00:4L	MDM	TAE DNW
Total/WA	Prep	746L			70.2 g	5 mE	7L8500	06/04/17 08:64	JDK	TAE DNW
Total/WA	Analysis	8054C		5			7L8L72	06/55/17 00:27	TN3	TAE DNW

Client Sample ID: RC4-SC-M05

Lab Sample ID: 820-59353-v2

Date Collecte/ : 03/30/17 M:10

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Analysis	3 oisture		5			7L1L92	06/05/17 5L:6L	RS3	TAE DNW

Client Sample ID: RC4-SC-M05

Lab Sample ID: 820-59353-v2

Date Collecte/ : 03/30/17 M:10

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Percent Soli/ s: 50.2

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Prep	4074			6.80 g	4 mE	7L8582	06/04/17 57:56	TN3	TAE DNW

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94797-6

Client Sample ID: RC4-SC-M05

Lab Sample ID: 820-59353-v2

Date Collecte/ : 03/30/17 M:MD

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Percent Soli/ s: 50.2

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Analysis	8054C		4	0.5 mE	4 mE	7L8477	06/08/51 05:25	MDM	TAE DNW
Total/WA	Prep	746L			70.5 g	5 mE	7L8500	06/04/51 08:64	JDK	TAE DNW
Total/WA	Analysis	8054C		2			7L8L72	06/55/51 00:61	TN3	TAE DNW

Client Sample ID: RC4-SC-M00

Lab Sample ID: 820-59353-v5

Date Collecte/ : 03/30/17 M:MD

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Analysis	3 oisture		5			7L1L92	06/05/51 5L:6L	RS3	TAE DNW

Client Sample ID: RC4-SC-M00

Lab Sample ID: 820-59353-v5

Date Collecte/ : 03/30/17 M:MD

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Percent Soli/ s: 25.0

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Prep	4074			4.28 g	4 mE	7L8582	06/04/51 57:56	TN3	TAE DNW
Total/WA	Analysis	8054C		20	0.5 mE	4 mE	7L8477	06/08/51 05:6L	MDM	TAE DNW
Total/WA	Prep	746L			75.7 g	5 mE	7L8500	06/04/51 08:64	JDK	TAE DNW
Total/WA	Analysis	8054C		50			7L8L72	06/55/51 05:52	TN3	TAE DNW

Client Sample ID: RC4-SC-MMM

Lab Sample ID: 820-59353-20

Date Collecte/ : 03/30/17 M:80

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Analysis	3 oisture		5			7L1L92	06/05/51 5L:6L	RS3	TAE DNW

Client Sample ID: RC4-SC-MMM

Lab Sample ID: 820-59353-20

Date Collecte/ : 03/30/17 M:80

x atrid: Soli/

Date Recei6e/ : 03/31/17 MI:99

Percent Soli/ s: 25.5

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/WA	Prep	4074			6.81 g	4 mE	7L8582	06/04/51 57:56	TN3	TAE DNW
Total/WA	Analysis	8054C		40	0.5 mE	4 mE	7L8477	06/08/51 02:55	MDM	TAE DNW
Total/WA	Prep	746L			70.6 g	5 mE	7L8500	06/04/51 08:64	JDK	TAE DNW
Total/WA	Analysis	8054C		20			7L8L72	06/55/51 05:7L	TN3	TAE DNW

Laboratory References:

TAE DNW= TestAmerica Denver, 6944 Yarrow Street, Arvada, CO 80002, TNE (707)17L-0500

TestAmerica Denver

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94696-1

Laboratory: TestAmerica Denver

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
A2LA	DoD 3LAP		2907.0E	E0-6E-E7
A2LA	ISO/I3C E7024		2907.0E	E0-6E-E7
Alabama	State Program	1	10760	09-60-E2 5
Alaska STU	State Program	E0	(ST-60	01-04-E8
Arizona	State Program	9	Az 07E6	E2-20-E7
Arkansas D3Z	State Program	Q	88-0Q87	0Q0E-E7
California	State Program	9	24E6	0E-08-E8 5
Connecticut	State Program	E	PH-0Q8Q	09-60-E8
Florida	N3LAP	1	387Q7	0Q60-E7
Georgia	State Program	1	N/A	0E-08-E8
Illinois	N3LAP	4	2000E7	01-60-E8
Iowa	State Program	7	670	E2-0E-E8 5
Kansas	N3LAP	7	3-E0EQQ	01-60-E7 5
Louisiana	N3LAP	Q	0209Q	0Q60-E7
Maine	State Program	E	CO0002	06-06-E9
Minnesota	N3LAP	4	8-999-104	E2-6E-E7 5
Nevada	State Program	9	CO002Q	07-6E-E7
New Hampshire	N3LAP	E	2046E0	01-28-E7
New Jersey	N3LAP	2	CO001	0Q60-E7
New York	N3LAP	2	EE9Q1	01-0E-E8
North Carolina KWW/SWU	State Program	1	648	E2-6E-E7
North Dakota	State Program	8	R-061	0E-09-E8
Oklahoma	State Program	Q	8QE1	08-6E-E7
Oregon	N3LAP	E0	1024	0E-08-E8
Pennsylvania	N3LAP	6	Q8-00QQ1	07-6E-E7
South Carolina	State Program	1	7200200E	0E-09-E7 5
Texas	N3LAP	Q	TE01701E86-EQE2	09-60-E7
(SDA	Federal		P660-EQ00697	E2-E4-E9
(tah	N3LAP	8	CO0002Q	07-6E-E7
Virginia	N3LAP	6	1Q262	0QE1-E7
Washington	State Program	E0	C486	08-02-E7
West Virginia D3P	State Program	6	641	EE-60-E7
Wisconsin	State Program	4	999QE4160	08-6E-E7
Wyoming K STU	A2LA	8	2907.0E	E0-6E-E7

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

TestAmerica Denver

Arvada, CO 80002-4517
phone 303.736.0100 fax 303.431.7171

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Bethany Lucente	Site Contact: Bethany Lucente	Date: 3/31/2017
Stanlec	Tel/Fax: (303) 250-4718	Lab Contact: Jamie Ide	Carrier: Courier
2000 South Colorado Blvd., Suite 2-300	Analysis Turnaround Time		
Denver, CO 80222	<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS		
	TAT if different from Below		
	<input checked="" type="checkbox"/> ASAP		
	<input type="checkbox"/> 2 weeks		
	<input type="checkbox"/> 1 week		
	<input type="checkbox"/> 2 days		
	<input type="checkbox"/> 1 day		
(303) 758-4058 Phone			
(303) 758-4828 FAX			
Project Name: CPL-Rangely C-4			
Site: CPL Rangely			
P O # 203720102			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	GRO-TEPH 8015C	DRO-TEPH 8015C	Site Contact: Bethany Lucente	Date: 3/31/2017	COC No:
RC4-SC-59	3/30/2017	1150	G	Soil	2	N	N	X	X			2 of 5 Pages
RC4-SC-60	3/30/2017	1155	G	Soil	2	N	N	X	X			Sampler: Stauthamer/Jones
RC4-SC-61	3/30/2017	1200	G	Soil	2	N	N	X	X			For Lab Use Only:
RC4-SC-62	3/30/2017	1205	G	Soil	2	N	N	X	X			Walk-in Client:
RC4-SC-63	3/30/2017	1210	G	Soil	2	N	N	X	X			Lab Sampling:
RC4-SC-64	3/30/2017	1215	G	Soil	2	N	N	X	X			Job / SDG No.:
RC4-SC-65	3/30/2017	1220	G	Soil	2	N	N	X	X			Sample Specific Notes:
RC4-SC-66	3/30/2017	1225	G	Soil	2	N	N	X	X			
RC4-SC-67	3/30/2017	1230	G	Soil	2	N	N	X	X			
RC4-SC-68	3/30/2017	1235	G	Soil	2	N	N	X	X			
RC4-SC-69	3/30/2017	1240	G	Soil	6	N	Y	X	X			
RC4-SC-70	3/30/2017	1245	G	Soil	2	N	N	X	X			
RC4-SC-DUP1	3/30/2017	1245	G	Soil	4	N	N	X	X			
RC4-SC-71	3/30/2017	1250	G	Soil	2	N	N	X	X			
RC4-SC-72	3/30/2017	1255	G	Soil	2	N	N	X	X			
RC4-SC-73	3/30/2017	1300	G	Soil	2	N	N	X	X			
RC4-SC-74	3/30/2017	1305	G	Soil	2	N	N	X	X			
RC4-SC-75	3/30/2017	1310	G	Soil	6	N	Y	X	X			
RC4-SC-76	3/30/2017	1315	G	Soil	2	N	N	X	X			
RC4-SC-DUP2	3/30/2017	1315	G	Soil	4	N	N	X	X			
RC4-SC-77	3/30/2017	1320	G	Soil	2	N	N	X	X			

Chain of Custody Record

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Bethany Lucente Tel/Fax: (303) 250-4718		Site Contact: Bethany Lucente Lab Contact: Jamie Ide		Date: 3/31/2017 Carrier: Courier		COC No: 3 of 5 Pages	
Stanlec 2000 South Colorado Blvd., Suite 2-300 Denver, CO 80222		Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS TAT if different from Below ASAP <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Filtered Sample (Y / N)		Perform MS / MSD (Y / N)		GRO-TEPH 8015C	
Phone (303) 758-4058 FAX (303) 758-4828		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
Project Name: CPL-Rangely C-4 Site: CPL Rangely P O # 203720102		RC4-SC-78		3/30/2017		1325		G Soil 2	
		RC4-SC-79		3/30/2017		1330		G Soil 2	
		RC4-SC-80		3/30/2017		1335		G Soil 2	
		RC4-SC-DUP3		3/30/2017		1335		G Soil 4	
		RC4-SC-81		3/30/2017		1450		G Soil 2	
		RC4-SC-82		3/30/2017		1455		G Soil 2	
		RC4-SC-83		3/30/2017		1500		G Soil 2	
		RC4-SC-84		3/30/2017		1505		G Soil 2	
		RC4-SC-85		3/30/2017		1510		G Soil 2	
		RC4-SC-86		3/30/2017		1515		G Soil 2	
		RC4-SC-87		3/30/2017		1520		G Soil 2	
		RC4-SC-DUP4		3/30/2017		1520		G Soil 4	
		RC4-SC-88		3/30/2017		1525		G Soil 2	
		RC4-SC-89		3/30/2017		1530		G Soil 2	
		RC4-SC-90		3/30/2017		1535		G Soil 2	
		RC4-SC-91		3/30/2017		1540		G Soil 2	
		RC4-SC-92		3/30/2017		1545		G Soil 6	
		RC4-SC-93		3/30/2017		1550		G Soil 2	
		RC4-SC-94		3/30/2017		1555		G Soil 2	
		RC4-SC-95		3/30/2017		1600		G Soil 2	
		RC4-SC-96		3/30/2017		1605		G Soil 2	

Revised 3-31-17 1655 TAD

Chain of Custody Record

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Bethany Lucente		Site Contact: Bethany Lucente		Date: 3/31/2017		COC No: 14 of 5 Pages	
Tel/Fax: (303) 250-4718		Analysis Turnaround Time		Lab Contact: Jamie Ide		Carrier: Courier		Sampler: Stautthamer/Jones	
2000 South Colorado Blvd., Suite 2-300		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS		Perform MS / MSD (Y / N)				For Lab Use Only:	
Denver, CO 80222		TAT if different from Below		Filtered Sample (Y / N)				Walk-in Client:	
(303) 758-4058 Phone		ASAP		DRO-TEPH 8015C				Lab Sampling:	
(303) 758-4828 FAX		<input checked="" type="checkbox"/> 2 weeks		GRO-TEPH 8015C				Job / SDG No.:	
Project Name: CPL-Rangely C-4		<input type="checkbox"/> 1 week							
Site: CPL Rangely		<input type="checkbox"/> 2 days							
P O # 203720102		<input type="checkbox"/> 1 day							
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	GRO-TEPH 8015C	DRO-TEPH 8015C
RC4-SC-DUP5	3/30/2017	1610	G	Soil	4	N	N	X	X
RC4-SC-97	3/30/2017	1610	G	Soil	6	N	Y	X	X
RC4-SC-98	3/30/2017	1615	G	Soil	2	N	N	X	X
RC4-SC-99	3/30/2017	1620	G	Soil	2	N	N	X	X
RC4-SC-100	3/30/2017	1625	G	Soil	2	N	N	X	X
RC4-SC-101	3/30/2017	1630	G	Soil	2	N	N	X	X
RC4-SC-102	3/30/2017	1635	G	Soil	2	N	N	X	X
RC4-SC-103	3/30/2017	1640	G	Soil	2	N	N	X	X
RC4-SC-104	3/30/2017	1645	G	Soil	2	N	N	X	X
RC4-SC-105	3/30/2017	1650	G	Soil	2	N	N	X	X
RC4-SC-DUP6	3/30/2017	1650	G	Soil	4	N	N	X	X
RC4-SC-106	3/30/2017	1655	G	Soil	6	N	Y	X	X
RC4-SC-107	3/30/2017	1700	G	Soil	2	N	N	X	X
RC4-SC-108	3/30/2017	1705	G	Soil	2	N	N	X	X
RC4-SC-109	3/30/2017	1710	G	Soil	2	N	N	X	X
RC4-SC-110	3/30/2017	1715	G	Soil	2	N	N	X	X
RC4-SC-111	3/30/2017	1720	G	Soil	2	N	N	X	X
RC4-SC-112	3/30/2017	1725	G	Soil	2	N	N	X	X
RC4-SC-113	3/30/2017	1730	G	Soil	2	N	N	X	X
RC4-SC-114	3/30/2017	1735	G	Soil	2	N	N	X	X
RC4-SC-115	3/30/2017	1740	G	Soil	2	N	N	X	X

Reed PETA 3-31-17 1655 T40

Chain of Custody Record

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: ☐

Client Contact		Project Manager: Bethany Lucente Tel/Fax: (303) 250-4718		Site Contact: Bethany Lucente Lab Contact: Jamie Ide		Date: 3/31/2017 Carrier: Courier		COC No: 5 of 5 Pages	
2000 South Colorado Blvd., Suite 2-300 Denver, CO 80222		Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS TAT if different from Below ASAP <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.:		Sampler: Stauthamer/Jones			
Project Name: CPL-Rangely C-4 Site: CPL Rangely P O # 203720102									

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Sample Specific Notes:
RC4-SC-DUP7	3/30/2017	1745	G	Soil	4	N	X	DRO-TEPH 8015C
RC4-SC-116	3/30/2017	1745	G	Soil	6	N	X	
RC4-SC-117	3/30/2017	1750	G	Soil	2	N	X	
RC4-SC-118	3/30/2017	1755	G	Soil	2	N	X	
RC4-SC-119	3/30/2017	1800	G	Soil	2	N	X	
RC4-SC-120	3/30/2017	1805	G	Soil	2	N	X	
RC4-SC-121	3/30/2017	1810	G	Soil	2	N	X	
RC4-SC-122	3/30/2017	1815	G	Soil	2	N	X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Special Instructions/QC Requirements & Comments:
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown
☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____		Therm ID No.:	
Relinquished by: Mike Stauthamer/ide		Company: Stauter		Received by: [Signature]		Company: TAP	
Relinquished by:		Company:		Date/Time: 3/31/17 12:00		Date/Time: 3-31-17 1655	
Relinquished by:		Company:		Date/Time:		Date/Time:	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-95393-1

Login Number: 95393

List Source: TestAmerica Denver

List Number: 1

Creator: Pottruff, Reed W

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.	False	SAMPLED YESTERDAY ICE PUT ON TODAY RECEIVED OUT OF TEMP
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	MISSING CONTAINERS FOR DUP SAMPLES
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (4/1").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver

4955 Yarrow Street

Arvada, CO 80002

Tel: (303)736-0100

TestAmerica Job ID: 280-95393-5

Client Project/Site: Stantec CVX - Rangely, CO

For:

Stantec Consulting Corp.

2000 South Colorado Blvd

Suite 2-300

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Authorized for release by:

4/24/2017 2:50:15 PM

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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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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-5

Qualifiers

GC SmV

Qualifier	Qualifier Description
X	Surrogate is outside control limits
F1	MS and/or MSD Recovery is outside acceptance limits.
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.

GC cep i SmV

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
X	Surrogate is outside control limits
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.

Glossary

Abbreviation	These are the only abbreviations that 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, 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)

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-5

Job ID: 280-95393-5

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Stantec Consulting Corp.
Project: Stantec CVX - Rangely, CO
Report Number: 280-95393-5

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 on 3/31/2017 4:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 8.9° C, 10.1° C, 13.5° C and 13.9° C. The samples were received at the laboratory outside the required temperature criteria. The samples were collected 3/30/17 and arrived at the laboratory on 3/31/17. It was noted that ice was present in the coolers; however, may not have been present with the samples during the storage time between 3/30 and 3/31. The laboratory will proceed with the requested analyses unless otherwise notified. The client was notified 4/3/17.

The chain of custody indicates 4 containers were received for each of the following sample: RC4-SC-DUP7 (280-95393-85). However, it was noted at the time of sample receipt only 2 containers were received for each sample. Sufficient volume is available for analysis; therefore, corrective action was not performed.

Due to the large number of samples received, the samples have been logged in a job series of ~20 samples per SDG (280-95393-1, 280-95393-2. 280-95393-3. 280-95393-4). This SDG includes samples 81-92 listed on the chain of custody.

GASOLINE RANGE ORGANICS (GRO)

a,a,a-Trifluorotoluene failed the surrogate recovery criteria for RC4-SC-113 (280-95393-82), RC4-SC-DUP7 (280-95393-85), RC4-SC-116 (280-95393-86), RC4-SC-116MS (280-95393-86MS) and RC4-SC-116MSD (280-95393-86MSD). Evidence of matrix interference is present; therefore, corrective action was not performed.

a,a,a-Trifluorotoluene failed the surrogate recovery criteria for RC4-SC-121 (280-95393-91), and RC4-SC-122 (280-95393-92). 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. The surrogate recoveries are calculated from diluted samples and in some cases are diluted below reportable limits.

GRO (C6-C10) failed the recovery criteria low for the MSD of sample RC4-SC-116 (280-95393-86). The associated LCS was in control; therefore, corrective action was not performed.

Samples RC4-SC-114 (280-95393-83)[2X], RC4-SC-120 (280-95393-90)[2X], RC4-SC-121 (280-95393-91)[20X] and RC4-SC-122 (280-95393-92)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

DIESEL RANGE ORGANICS

o-Terphenyl failed the surrogate recovery criteria for RC4-SC-116MS (280-95393-86MS), RC4-SC-116MSD (280-95393-86MSD), RC4-SC-118 (280-95393-88), RC4-SC-120 (280-95393-90), RC4-SC-121 (280-95393-91) and RC4-SC-122 (280-95393-92). 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. The surrogate recoveries are calculated from diluted samples and in some cases are diluted below reportable limits.

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-5

Job ID: 280-95393-5 (Continued)

Laboratory: TestAmerica Denver (Continued)

o-Terphenyl failed the surrogate recovery criteria high for MB 280-368108/1-A and LCS 280-368108/2-A. The associated sample surrogates were in control or were analyzed at a dilution. The associated extraction holding times have expired; therefore, the data is reported as is.

DRO (C10-C28) failed the recovery criteria high for the MSD of sample RC4-SC-116 (280-95393-86). The associated LCS was in control; therefore, corrective action was not performed.

Samples RC4-SC-118 (280-95393-88)[10X], RC4-SC-120 (280-95393-90)[5X], RC4-SC-121 (280-95393-91)[10X] and RC4-SC-122 (280-95393-92)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

PERCENT SOLIDS

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

Detection Summary

Client: ntl tec 1 ol sS u 1 orgp
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TestAmerica Job ID: 280-95797-5

Client Sample ID: RC4-SC-338

Lab Sample ID: 820-95191-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
OX, (1) -140K	4)		4p8	0p78	mujNu	4	✱	80451	Tota6 A
DX, (140-128K	720		3p6	0p69	mujNu	4	✱	80451	Tota6 A

Client Sample ID: RC4-SC-331

Lab Sample ID: 820-95191-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
OX, (1) -140K	Q2		4p8	0p80	mujNu	4	✱	80451	Tota6 A
DX, (140-128K	450		3p8	0p69	mujNu	4	✱	80451	Tota6 A

Client Sample ID: RC4-SC-334

Lab Sample ID: 820-95191-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
OX, (1) -140K	G3		2p6	0p67	mujNu	2	✱	80451	Tota6 A
DX, (140-128K	300		3p8	0p68	mujNu	4	✱	80451	Tota6 A

Client Sample ID: RC4-SC-335

Lab Sample ID: 820-95191-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
OX, (1) -140K	5p7		4p8	0p7G	mujNu	4	✱	80451	Tota6 A
DX, (140-128K	94		3p8	0p6G	mujNu	4	✱	80451	Tota6 A

Client Sample ID: RC4-SC-DUP6

Lab Sample ID: 820-95191-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
OX, (1) -140K	Q4		4p8	0p79	mujNu	4	✱	80451	Tota6 A
DX, (140-128K	400		3p8	0p84	mujNu	4	✱	80451	Tota6 A

Client Sample ID: RC4-SC-337

Lab Sample ID: 820-95191-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
OX, (1) -140K	7p8	F4	4p8	0p79	mujNu	4	✱	80451	Tota6 A
DX, (140-128K	52	F4	3p6	0p80	mujNu	4	✱	80451	Tota6 A

Client Sample ID: RC4-SC-336

Lab Sample ID: 820-95191-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
OX, (1) -140K	7p8		4p8	0p80	mujNu	4	✱	80451	Tota6 A
DX, (140-128K	57		3p6	0p80	mujNu	4	✱	80451	Tota6 A

Client Sample ID: RC4-SC-332

Lab Sample ID: 820-95191-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
OX, (1) -140K	28		4p8	0p78	mujNu	4	✱	80451	Tota6 A
DX, (140-128K	8000		35	Q6	mujNu	40	✱	80451	Tota6 A

Client Sample ID: RC4-SC-339

Lab Sample ID: 820-95191-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
OX, (1) -140K	7p8		4p8	0p7G	mujNu	4	✱	80451	Tota6 A
DX, (140-128K	450		3p7	0p63	mujNu	4	✱	80451	Tota6 A

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Detection Summary

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TestAmerica Job ID: 280-95797-5

Client Sample ID: RC4-SC-380

Lab Sample ID: 820-95191-90

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
OX, (1) -140K	9		26	0pG	mujNu	2		✱	80451	Total A
DX, (140-128K	2900		22	7pG	mujNu	5		✱	80451	Total A

Client Sample ID: RC4-SC-383

Lab Sample ID: 820-95191-93

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
OX, (1) -140K	830		2)	G0	mujNu	20		✱	80451	Total A
DX, (140-128K	9800		35	G)	mujNu	40		✱	80451	Total A

Client Sample ID: RC4-SC-388

Lab Sample ID: 820-95191-98

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
OX, (1) -140K	G 0		28	G)	mujNu	20		✱	80451	Total A
DX, (140-128K	9400		33	G5	mujNu	40		✱	80451	Total A

Method Summary

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. roEctjnite: n tal tec 6 / V - Xal ue 6 ,

TestAmerica Job ID: 280-94797-4

Method	Method Description	Protocol	Laboratory
80546	Nol haCuel ated , rual ics Ssil u G6jFID -Modified (Gasol e Xal ue , rual ics)	nO8M	TAL DEN
80546	Nol haCuel ated , rual ics Ssil u G6jFID -Modified (Diesel Xal ue , rual ics)	nO8M	TAL DEN
MoistSre	. ercel t MoistSre	E. A	TAL DEN

Protocol References:

E. A = " n El virol mel taC roetectiol Auel cR

nO8M = Test Methods For Evaluation of Soil Oastey. hRicaC hemicaMethods, Third Editiol yNovember 5981 Al d Its " gdatesp

Laboratory References:

TAL DEN = TestAmerica Del veryV44 Yarrow ntreetyArvaday6 , 80002yTEL (707)371-0500

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-5

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-95393-81	RC4-SC-112	Solid	03/30/17 17:25	03/31/17 16:55
280-95393-82	RC4-SC-113	Solid	03/30/17 17:30	03/31/17 16:55
280-95393-83	RC4-SC-114	Solid	03/30/17 17:35	03/31/17 16:55
280-95393-84	RC4-SC-115	Solid	03/30/17 17:40	03/31/17 16:55
280-95393-85	RC4-SC-DUP7	Solid	03/30/17 17:45	03/31/17 16:55
280-95393-86	RC4-SC-116	Solid	03/30/17 17:45	03/31/17 16:55
280-95393-87	RC4-SC-117	Solid	03/30/17 17:50	03/31/17 16:55
280-95393-88	RC4-SC-118	Solid	03/30/17 17:55	03/31/17 16:55
280-95393-89	RC4-SC-119	Solid	03/30/17 18:00	03/31/17 16:55
280-95393-90	RC4-SC-120	Solid	03/30/17 18:05	03/31/17 16:55
280-95393-91	RC4-SC-121	Solid	03/30/17 18:10	03/31/17 16:55
280-95393-92	RC4-SC-122	Solid	03/30/17 18:15	03/31/17 16:55

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-5

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-SC-112
Date Collected: 07/70/1x 1x:25
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-81
Matri3: Solid
Percent Solids: 84.5

Analz	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analz	Dil Fac
GRO (CA-C10)	1A		7.1	0.38	mg/Kg	☆	01/05/74 73:71	01/08/74 02:35	7
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	14		99 - 4D				X72K324904 /47	X72K12490X /3	4

Client Sample ID: RC4-SC-117
Date Collected: 07/70/1x 1x:70
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-82
Matri3: Solid
Percent Solids: 85.9

Analz	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analz	Dil Fac
GRO (CA-C10)	x.2		7.5	0.10	mg/Kg	☆	01/05/74 73:71	01/08/74 03:00	7
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	9	5	99 - 4D				X72K324904 /47	X72K12490X /XX	4

Client Sample ID: RC4-SC-114
Date Collected: 07/70/1x 1x:75
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-87
Matri3: Solid
Percent Solids: 84.9

Analz	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analz	Dil Fac
GRO (CA-C10)	x4		2.4	0.43	mg/Kg	☆	01/05/74 73:71	01/08/74 03:21	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	44X		99 - 4D				X72K324904 /47	X72K12490X /D7	D

Client Sample ID: RC4-SC-115
Date Collected: 07/70/1x 1x:40
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-84
Matri3: Solid
Percent Solids: 84.1

Analz	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analz	Dil Fac
GRO (CA-C10)	5.7		7.1	0.34	mg/Kg	☆	01/05/74 73:71	01/08/74 03:19	7
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	1D		99 - 4D				X72K324904 /47	X72K12490X /78	4

Client Sample ID: RC4-SC-DQPx
Date Collected: 07/70/1x 1x:45
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-85
Matri3: Solid
Percent Solids: 87.8

Analz	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analz	Dil Fac
GRO (CA-C10)	x.1		7.1	0.39	mg/Kg	☆	01/05/74 73:71	01/08/74 01:38	7
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	9	5	99 - 4D				X72K324904 /47	X72K12490X /71	4

Client Sample ID: RC4-SC-11A
Date Collected: 07/70/1x 1x:45
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-8A
Matri3: Solid
Percent Solids: 81.2

Analz	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analz	Dil Fac
GRO (CA-C10)	7.5	F1	7.1	0.39	mg/Kg	☆	01/05/74 73:71	01/08/74 05:03	7
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	97	5	99 - 4D				X72K324904 /47	X72K12490X /3X	4

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-5

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-SC-11x
Date Collected: 07/70/1x 1x:50
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-8x
Matri3: Solid
Percent Solids: 87.8

Analz	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analz	Dil Fac
GRO (CA-C10)	7.4		7.5	0.10	mg/Kg	☼	01/05/74 73:71	01/08/74 0v:78	7
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	98		99 - 4D				X72X324904 /47	X72X12490X: /41	4

Client Sample ID: RC4-SC-118
Date Collected: 07/70/1x 1x:55
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-88
Matri3: Solid
Percent Solids: 8x.7

Analz	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analz	Dil Fac
GRO (CA-C10)	28		7.1	0.38	mg/Kg	☼	01/05/74 73:71	01/77/74 73:0v	7
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	8X		99 - 4D				X72X324904 /47	X724424904 /X:	4

Client Sample ID: RC4-SC-119
Date Collected: 07/70/1x 18:00
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-89
Matri3: Solid
Percent Solids: 8x.0

Analz	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analz	Dil Fac
GRO (CA-C10)	7.4		7.1	0.34	mg/Kg	☼	01/05/74 73:71	01/08/74 04:04	7
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	99		99 - 4D				X72X324904 /47	X72X12490X9/X9	4

Client Sample ID: RC4-SC-120
Date Collected: 07/70/1x 18:05
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-90
Matri3: Solid
Percent Solids: 88.8

Analz	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analz	Dil Fac
GRO (CA-C10)	A9		2.4	0.41	mg/Kg	☼	01/05/74 73:71	01/08/74 04:32	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	81		99 - 4D				X72X324904 /47	X72X12490X9/ D	D

Client Sample ID: RC4-SC-121
Date Collected: 07/70/1x 18:10
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-91
Matri3: Solid
Percent Solids: 88.1

Analz	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analz	Dil Fac
GRO (CA-C10)	840		2v	4.0	mg/Kg	☼	01/05/74 73:71	01/08/74 04:54	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	: 1	506	99 - 4D				X72X324904 /47	X72X12490X9/39	DX

Client Sample ID: RC4-SC-122
Date Collected: 07/70/1x 18:15
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-92
Matri3: Solid
Percent Solids: 89.A

Analz	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analz	Dil Fac
GRO (CA-C10)	xAD		28	4.v	mg/Kg	☼	01/05/74 73:71	01/08/74 08:22	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	D1D	506	99 - 4D				X72X324904 /47	X72X12490X1/DD	DX

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Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-5

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-SC-112
Date Collected: 07/70/1x 1x:25
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-81
Matri3: Solid
Percent Solids: 84.5

Analyste	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyst	Dil Fac
DRO (C10-C28)	720		1.4	0.49	mg/Kg	☼	01/05/74 08:15	01/77/74 02:00	7
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	8:		78 - 443				X72X32490X1/73	X72442490XDX	4

Client Sample ID: RC4-SC-117
Date Collected: 07/70/1x 1x:70
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-82
Matri3: Solid
Percent Solids: 85.9

y nalzte	Result	6 ualifier	RL	MDL	Qnit	D	Prepared	y nalzUed	Dil Fac
DRO (C10-C28)	150		1.5	0.4v	mg/Kg	☼	01/05/74 08:15	01/77/74 02:25	7
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	88		78 - 443				X72X32490X1/73	X72442490XD/3	4

Client Sample ID: RC4-SC-114
Date Collected: 07/70/1x 1x:75
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-87
Matri3: Solid
Percent Solids: 84.9

Analyste	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyst	Dil Fac
DRO (C10-C28)	400		1.v	0.48	mg/Kg	☼	01/05/74 08:15	01/77/74 02:19	7
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	8X		78 - 443				X72X32490X1/73	X72442490XD/78	4

Client Sample ID: RC4-SC-115
Date Collected: 07/70/1x 1x:40
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-84
Matri3: Solid
Percent Solids: 84.1

y nalz te	Result	6 ualifier	RL	MDL	Qnit	D	Prepared	y nalzUed	Dil Fac
DRO (C10-C28)	91		1.5	0.44	mg/Kg	☼	01/05/74 08:15	01/77/74 03:71	7
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	4X1		78 - 443				X72X32490X1/73	X72442490X /47	4

Client Sample ID: RC4-SC-DQPx
Date Collected: 07/70/1x 1x:45
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-85
Matri3: Solid
Percent Solids: 87.8

y nalz te	Result	6 ualifier	RL	MDL	Qnit	D	Prepared	y nalzUed	Dil Fac
DRO (C10-C28)	100		1.8	0.87	mg/Kg	☼	01/05/74 08:15	01/77/74 03:38	7
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	44D		78 - 443				X72X32490X1/73	X72442490X / 1	4

Client Sample ID: RC4-SC-11A
Date Collected: 07/70/1x 1x:45
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-8A
Matri3: Solid
Percent Solids: 81.2

y nalzte	Result	6 ualifier	RL	MDL	Qnit	D	Prepared	y nalzUed	Dil Fac
DRO (C10-C28)	52	F1	1.4	0.80	mg/Kg	☼	01/05/74 08:15	01/04/74 01:3v	7
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	444		78 - 443				X72X32490X1/73	X72X92490X7/ :	4

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-5

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-SC-11x
Date Collected: 07/70/1x 1x:50
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-8x
Matri3: Solid
Percent Solids: 87.8

Analz	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analz	Dil Fac
DRO (C10-C28)	57		1.4	0.80	mg/Kg	☼	01/05/74 08:15	01/04/74 05:19	7
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	44X		78 - 443				X72X32490X1/73	X72X92490X3/78	4

Client Sample ID: RC4-SC-118
Date Collected: 07/70/1x 1x:55
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-88
Matri3: Solid
Percent Solids: 8x.7

Analz	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analz	Dil Fac
DRO (C10-C28)	8000		15	4.4	mg/Kg	☼	01/05/74 08:15	01/08/74 73:58	70
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	1	506	78 - 443				X72X32490X1/73	X72X12490X / 31	4X

Client Sample ID: RC4-SC-119
Date Collected: 07/70/1x 18:00
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-89
Matri3: Solid
Percent Solids: 8x.0

Analz	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analz	Dil Fac
DRO (C10-C28)	150		1.3	0.41	mg/Kg	☼	01/05/74 08:15	01/04/74 0v:39	7
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	4X7		78 - 443				X72X32490X1/73	X72X92490X / 8	4

Client Sample ID: RC4-SC-120
Date Collected: 07/70/1x 18:05
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-90
Matri3: Solid
Percent Solids: 88.8

Analz	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analz	Dil Fac
DRO (C10-C28)	2900		22	3.4	mg/Kg	☼	01/05/74 08:15	01/08/74 71:18	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	7D	506	78 - 443				X72X32490X1/73	X72X12490X7/71	3

Client Sample ID: RC4-SC-121
Date Collected: 07/70/1x 18:10
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-91
Matri3: Solid
Percent Solids: 88.1

Analz	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analz	Dil Fac
DRO (C10-C28)	9800		15	4.v	mg/Kg	☼	01/05/74 08:15	01/08/74 75:72	70
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	D8	506	78 - 443				X72X32490X1/73	X72X12490X3/4D	4X

Client Sample ID: RC4-SC-122
Date Collected: 07/70/1x 18:15
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-92
Matri3: Solid
Percent Solids: 89.A

Analz	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analz	Dil Fac
DRO (C10-C28)	9100		11	4.5	mg/Kg	☼	01/05/74 08:15	01/08/74 75:34	70
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(QSurr)	4X1D	506	78 - 443				X72X32490X1/73	X72X12490X3/ 9	4X

TestAmerica Den6er

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-5

General Chemistrz

Client Sample ID: RC4-SC-112
Date Collected: 07/70/1x 1x:25
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-81
Matri3: Solid
Percent Solids: 84.5

ynalzte	Result	6 ualifier	RL	MDL	Qnit	D	Prepared	ynalzUed	Dil Fac
Percent Moisture	15.5		0.7	0.7	%			01/07/74 7v:1v	7
Percent Solids	84.5		0.7	0.7	%			01/07/74 7v:1v	7

Client Sample ID: RC4-SC-117
Date Collected: 07/70/1x 1x:70
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-82
Matri3: Solid
Percent Solids: 85.9

ynalzte	Result	6 ualifier	RL	MDL	Qnit	D	Prepared	ynalzUed	Dil Fac
Percent Moisture	14.1		0.7	0.7	%			01/07/74 7v:1v	7
Percent Solids	85.9		0.7	0.7	%			01/07/74 7v:1v	7

Client Sample ID: RC4-SC-114
Date Collected: 07/70/1x 1x:75
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-87
Matri3: Solid
Percent Solids: 84.9

ynalzte	Result	6 ualifier	RL	MDL	Qnit	D	Prepared	ynalzUed	Dil Fac
Percent Moisture	15.1		0.7	0.7	%			01/07/74 7v:1v	7
Percent Solids	84.9		0.7	0.7	%			01/07/74 7v:1v	7

Client Sample ID: RC4-SC-115
Date Collected: 07/70/1x 1x:40
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-84
Matri3: Solid
Percent Solids: 84.1

ynalzte	Result	6 ualifier	RL	MDL	Qnit	D	Prepared	ynalzUed	Dil Fac
Percent Moisture	15.9		0.7	0.7	%			01/07/74 7v:1v	7
Percent Solids	84.1		0.7	0.7	%			01/07/74 7v:1v	7

Client Sample ID: RC4-SC-DQPx
Date Collected: 07/70/1x 1x:45
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-85
Matri3: Solid
Percent Solids: 87.8

ynalzte	Result	6 ualifier	RL	MDL	Qnit	D	Prepared	ynalzUed	Dil Fac
Percent Moisture	1A.2		0.7	0.7	%			01/07/74 7v:1v	7
Percent Solids	87.8		0.7	0.7	%			01/07/74 7v:1v	7

Client Sample ID: RC4-SC-11A
Date Collected: 07/70/1x 1x:45
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-8A
Matri3: Solid
Percent Solids: 81.2

ynalzte	Result	6 ualifier	RL	MDL	Qnit	D	Prepared	ynalzUed	Dil Fac
Percent Moisture	18.8		0.7	0.7	%			01/07/74 7v:1v	7
Percent Solids	81.2		0.7	0.7	%			01/07/74 7v:1v	7

Client Sample ID: RC4-SC-11x
Date Collected: 07/70/1x 1x:50
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-8x
Matri3: Solid
Percent Solids: 87.8

ynalzte	Result	6 ualifier	RL	MDL	Qnit	D	Prepared	ynalzUed	Dil Fac
Percent Moisture	1A.2		0.7	0.7	%			01/07/74 7v:1v	7
Percent Solids	87.8		0.7	0.7	%			01/07/74 7v:1v	7

Client Sample ID: RC4-SC-118
Date Collected: 07/70/1x 1x:55
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-88
Matri3: Solid
Percent Solids: 8x.7

ynalzte	Result	6 ualifier	RL	MDL	Qnit	D	Prepared	ynalzUed	Dil Fac
Percent Moisture	12.x		0.7	0.7	%			01/07/74 7v:1v	7
Percent Solids	8x.7		0.7	0.7	%			01/07/74 7v:1v	7

TestAmerica Den6er

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-5

General Chemistrz

Client Sample ID: RC4-SC-119
Date Collected: 07/70/1x 18:00
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-89
Matri3: Solid
Percent Solids: 8x.0

ynalzte	Result	6 ualifier	RL	MDL	Qnit	D	Prepared	ynalzUed	Dil Fac
Percent Moisture	17.0		0.7	0.7	%			01/07/74 7v:1v	7
Percent Solids	8x.0		0.7	0.7	%			01/07/74 7v:1v	7

Client Sample ID: RC4-SC-120
Date Collected: 07/70/1x 18:05
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-90
Matri3: Solid
Percent Solids: 88.8

ynalzte	Result	6 ualifier	RL	MDL	Qnit	D	Prepared	ynalzUed	Dil Fac
Percent Moisture	11.2		0.7	0.7	%			01/07/74 7v:1v	7
Percent Solids	88.8		0.7	0.7	%			01/07/74 7v:1v	7

Client Sample ID: RC4-SC-121
Date Collected: 07/70/1x 18:10
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-91
Matri3: Solid
Percent Solids: 88.1

ynalzte	Result	6 ualifier	RL	MDL	Qnit	D	Prepared	ynalzUed	Dil Fac
Percent Moisture	11.9		0.7	0.7	%			01/07/74 7v:52	7
Percent Solids	88.1		0.7	0.7	%			01/07/74 7v:52	7

Client Sample ID: RC4-SC-122
Date Collected: 07/70/1x 18:15
Date Received: 07/71/1x 1A:55

Lab Sample ID: 280-95797-92
Matri3: Solid
Percent Solids: 89.A

ynalzte	Result	6 ualifier	RL	MDL	Qnit	D	Prepared	ynalzUed	Dil Fac
Percent Moisture	10.4		0.7	0.7	%			01/07/74 7v:1v	7
Percent Solids	89.A		0.7	0.7	%			01/07/74 7v:1v	7

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-5

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)
Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	TFT1 (77-123)	
280-95393-81	RC4-SC-112	81	
280-95393-82	RC4-SC-113	76 X	
280-95393-83	RC4-SC-114	110	
280-95393-84	RC4-SC-115	82	
280-95393-85	RC4-SC-DUP7	73 X	
280-95393-86	RC4-SC-116	74 X	
280-95393-86 MS	RC4-SC-116	73 X	
280-95393-86 MSD	RC4-SC-116	76 X	
280-95393-87	RC4-SC-117	79	
280-95393-88	RC4-SC-118	90	
280-95393-89	RC4-SC-119	77	
280-95393-90	RC4-SC-120	98	
280-95393-91	RC4-SC-121	683 X D	
280-95393-92	RC4-SC-122	282 X D	
LCS 280-368182/2-A	Lab Control Sample	93	
LCS 280-368872/12	Lab Control Sample	95	
LCSD 280-368872/13	Lab Control Sample Dup	95	
MB 280-368182/1-A	Method Blank	92	
MB 280-368872/67	Method Blank	96	
Surrogate Legend			
TFT = a,a,a-Trifluorotoluene			

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)
Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	OTPH1 (49-115)	
280-95393-81	RC4-SC-112	96	
280-95393-82	RC4-SC-113	99	
280-95393-83	RC4-SC-114	90	
280-95393-84	RC4-SC-115	108	
280-95393-85	RC4-SC-DUP7	112	
280-95393-86	RC4-SC-116	111	
280-95393-86 MS	RC4-SC-116	118 X	
280-95393-86 MSD	RC4-SC-116	118 X	
280-95393-87	RC4-SC-117	110	
280-95393-88	RC4-SC-118	8 X D	
280-95393-89	RC4-SC-119	104	
280-95393-90	RC4-SC-120	42 X D	
280-95393-91	RC4-SC-121	29 X D	
280-95393-92	RC4-SC-122	1082 X D	
LCS 280-368100/2-A	Lab Control Sample	110	
LCS 280-368108/2-A	Lab Control Sample	118 X	
MB 280-368100/1-A	Method Blank	112	
MB 280-368108/1-A	Method Blank	117 X	
Surrogate Legend			
OTPH = o-Terphenyl (Surr)			

TestAmerica Denver

QC Sample Results

1 of 1
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TestAmerica Job ID: 280-95797-5

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Lab Sample ID: MB 280-368182/1-A

Matrix: Solid

Analysis Batch: 368533

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 368182

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
OX, G (-160)	ND		6p2	0p77	muj3u	-	0Kj05j64 67:6K	0Kj04j64 27:K2	6
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	84		77 - 142				30/3:/17512 10	30/37/17512 04	1

Lab Sample ID: LCS 280-368182/2-A

Matrix: Solid

Analysis Batch: 368533

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 368182

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
OX, G (-160)	5p50	5p50		muj3u	-	604	85 - 657
Surrogate	%Recovery	LCS Qualifier	Limits				
a,a,a-Trifluorotoluene	82		77 - 142				

Lab Sample ID: 280-95393-86 MS

Matrix: Solid

Analysis Batch: 368533

Client Sample ID: RC4-SC-116

Prep Type: Total/NA

Prep Batch: 368182

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
OX, G (-160)	7p5	v6	(p5(	9p58		muj3u	✱	92	85 - 657
Surrogate	%Recovery	MS Qualifier	Limits						
a,a,a-Trifluorotoluene	72	6	77 - 142						

Lab Sample ID: 280-95393-86 MSD

Matrix: Solid

Analysis Batch: 368533

Client Sample ID: RC4-SC-116

Prep Type: Total/NA

Prep Batch: 368182

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
OX, G (-160)	7p5	v6	(p58	9p5K	v6	muj3u	✱	8K	85 - 657	5	70
Surrogate	%Recovery	MSD Qualifier	Limits								
a,a,a-Trifluorotoluene	79	6	77 - 142								

Lab Sample ID: MB 280-368872/67

Matrix: Solid

Analysis Batch: 368872

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
OX, G (-160)	ND		0p02K	0p00(5	muj3u	-		0Kj66j64 6K:52	6
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	89		77 - 142					30/11/17510 : 4	1

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QC Sample Results

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TestAmerica Job ID: 280-95797-5

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics) (Continued)

Lab Sample ID: LCS 280-368872/12

Matrix: Solid

Analysis Batch: 368872

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
OX, G (-160)			0.606	0.6K0		muj3u		679	85 - 657		
Surrogate	LCS	LCS									
	%Recovery	Qualifier	Limits								
a,a,a-Trifluorotoluene	8:		77 - 142								

Lab Sample ID: LCSD 280-368872/13

Matrix: Solid

Analysis Batch: 368872

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

			Spike	LCSD	LCSD				%Rec.	RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
OX, G (-160)			0.606	0.675		muj3u		67K	85 - 657	K	70
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits								
a,a,a-Trifluorotoluene	8:		77 - 142								

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 280-368100/1-A

Matrix: Solid

Analysis Batch: 368632

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 368100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DX, (G 60-128)	ND		Kp0	0.8	muj3u		0Kj05j64 08:K5	0Kj60j64 68:K6	6
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	114		08 - 11:				30/3: /175X 0:	30/13/175X 01	1

Lab Sample ID: LCS 280-368100/2-A

Matrix: Solid

Analysis Batch: 368632

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 368100

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DX, G 60-128)	((.p)	(.7p)		muj3u		95	57 - 665
Surrogate	%Recovery	LCS Qualifier	Limits				
o-Terphenyl(Surr)	113		08 - 11:				

Lab Sample ID: MB 280-368108/1-A

Matrix: Solid

Analysis Batch: 368348

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 368108

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DX, G 60-128)	ND		Kp0	0.8	muj3u		0Kj05j64 08:K5	0Kj04j64 07:K4	6

TestAmerica Del Fer

QC Sample Results

1 of 1 total test results of 1 sample
 . result: 1 of 1 test results of 1 sample

TestAmerica Job ID: 280-95797-5

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: MB 280-368108/1-A
 Matrix: Solid
 Analysis Batch: 368348

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 368108

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	117	6	08 - 11:	30/3/173X0:	30/37/1732 07	1

Lab Sample ID: LCS 280-368108/2-A
 Matrix: Solid
 Analysis Batch: 368348

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 368108

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
DX, G 60-128)	((p	(9pK		muj3u		60K	57 - 665
Surrogate	LCS	LCS	Limits				
o-Terphenyl(Surr)	11X	6	08 - 11:				

Lab Sample ID: 280-95393-86 MS
 Matrix: Solid
 Analysis Batch: 368348

Client Sample ID: RC4-SC-116
 Prep Type: Total/NA
 Prep Batch: 368108

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
DX, G 60-128)	52	v6	49p2	6K0		muj3u	*	666	5(- 665
Surrogate	MS	MS	Limits						
o-Terphenyl(Surr)	11X	6	08 - 11:						

Lab Sample ID: 280-95393-86 MSD
 Matrix: Solid
 Analysis Batch: 368348

Client Sample ID: RC4-SC-116
 Prep Type: Total/NA
 Prep Batch: 368108

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
DX, G 60-128)	52	v6	44p2	6K5	v6	muj3u	*	626	5(- 665	K	27
Surrogate	MSD	MSD	Limits								
o-Terphenyl(Surr)	11X	6	08 - 11:								

Method: Moisture - Percent Moisture

Lab Sample ID: 280-95393-81 DU
 Matrix: Solid
 Analysis Batch: 367692

Client Sample ID: RC4-SC-112
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
. ercel t Moistre	65p5		6Kp8		%		5	20
. ercel t no@s	8Kp5		85p2		%		0p9	20

TestAmerica Del Fer

QC Sample Results

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Cell: nta1 tec 1 ol sS u 1 orgp
Pectjnite: nta1 tec 1 / V - Xal ueCy 1 ,

TestAmerica Job ID: 280-95797-5

Method: Moisture - Percent Moisture (Continued)

Lab Sample ID: 280-95393-91 DU
Matrix: Solid
Analysis Batch: 367692

Client Sample ID: RC4-SC-121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Percent Moisture	66.9		66.9		%		7	20
Percent Moisture	88.6		88.6		%		0.6	20

QC Association Summary

1 of 1 total test results of 1 sample
 . 1 of 1 total test results of 1 sample

TestAmerica Job ID: 280-95797-5

GC VOA

Prep Batch: 367871

5aL Sample ID	Client Sample ID	Prep Dype	T attriM	T ethox	Prep Batch
280-95797-8d	X13-n1-dd2	Total A	no	5075	
280-95797-82	X13-n1-dd7	Total A	no	5075	
280-95797-87	X13-n1-dd3	Total A	no	5075	
280-95797-83	X13-n1-dd5	Total A	no	5075	
280-95797-85	X13-n1-DN. 6	Total A	no	5075	
280-95797-8M	X13-n1-ddM	Total A	no	5075	
280-95797-86	X13-n1-dd6	Total A	no	5075	
280-95797-88	X13-n1-dd8	Total A	no	5075	
280-95797-89	X13-n1-dd9	Total A	no	5075	
280-95797-90	X13-n1-d20	Total A	no	5075	
280-95797-9d	X13-n1-d2d	Total A	no	5075	
280-95797-92	X13-n1-d22	Total A	no	5075	
B h 280-7M8d82jd-A	BetkoOhAl L	Total A	no	5075	
v1 n 280-7M8d82j2-A	vab 1 of troChamg	Total A	no	5075	
280-95797-8MB n	X13-n1-ddM	Total A	no	5075	
280-95797-8MB nD	X13-n1-ddM	Total A	no	5075	

Analysis Batch: 367d33

5aL Sample ID	Client Sample ID	Prep Dype	T attriM	T ethox	Prep Batch
280-95797-8d	X13-n1-dd2	Total A	no	80d51	7M8d82
280-95797-82	X13-n1-dd7	Total A	no	80d51	7M8d82
280-95797-87	X13-n1-dd3	Total A	no	80d51	7M8d82
280-95797-83	X13-n1-dd5	Total A	no	80d51	7M8d82
280-95797-85	X13-n1-DN. 6	Total A	no	80d51	7M8d82
280-95797-8M	X13-n1-ddM	Total A	no	80d51	7M8d82
280-95797-86	X13-n1-dd6	Total A	no	80d51	7M8d82
280-95797-89	X13-n1-dd9	Total A	no	80d51	7M8d82
280-95797-90	X13-n1-d20	Total A	no	80d51	7M8d82
280-95797-9d	X13-n1-d2d	Total A	no	80d51	7M8d82
280-95797-92	X13-n1-d22	Total A	no	80d51	7M8d82
B h 280-7M8d82jd-A	BetkoOhAl L	Total A	no	80d51	7M8d82
v1 n 280-7M8d82j2-A	vab 1 of troChamg	Total A	no	80d51	7M8d82
280-95797-8MB n	X13-n1-ddM	Total A	no	80d51	7M8d82
280-95797-8MB nD	X13-n1-ddM	Total A	no	80d51	7M8d82

Analysis Batch: 367701

5aL Sample ID	Client Sample ID	Prep Dype	T attriM	T ethox	Prep Batch
280-95797-88	X13-n1-dd8	Total A	no	80d51	7M8d82
B h 280-7M8862jM6	BetkoOhAl L	Total A	no	80d51	
v1 n 280-7M8862jd2	vab 1 of troChamg	Total A	no	80d51	
v1 nD 280-7M8862jd7	vab 1 of troChamg DSg	Total A	no	80d51	

GC Semi VOA

Prep Batch: 367844

5aL Sample ID	Client Sample ID	Prep Dype	T attriM	T ethox	Prep Batch
280-95797-8d	X13-n1-dd2	Total A	no	753M	
280-95797-82	X13-n1-dd7	Total A	no	753M	
280-95797-87	X13-n1-dd3	Total A	no	753M	
280-95797-83	X13-n1-dd5	Total A	no	753M	

TestAmerica Del Ubr

QC Association Summary

1 of 1 total test results for 1 sample
 . reagent: 1 of 1 / V - Xal ue 1,

TestAmerica Job ID: 280-95797-5

GC Semi VOA (Continuex)

Prep Batch: 367844 (Continuex)

5aL Sample ID	Client Sample ID	Prep Dype	T attriM	T ethox	Prep Batch
280-95797-85	X13-n1-DN. 6	Total A	no	753M	
B h 280-7M8d00jd-A	BetkoOh@L	Total A	no	753M	
v1 n 280-7M8d00j2-A	vab 1 ol troQamg@	Total A	no	753M	

Prep Batch: 367847

5aL Sample ID	Client Sample ID	Prep Dype	T attriM	T ethox	Prep Batch
280-95797-8M	X13-n1-ddM	Total A	no	753M	
280-95797-86	X13-n1-dd6	Total A	no	753M	
280-95797-88	X13-n1-dd8	Total A	no	753M	
280-95797-89	X13-n1-dd9	Total A	no	753M	
280-95797-90	X13-n1-d20	Total A	no	753M	
280-95797-9d	X13-n1-d2d	Total A	no	753M	
280-95797-92	X13-n1-d22	Total A	no	753M	
B h 280-7M8d08jd-A	BetkoOh@L	Total A	no	753M	
v1 n 280-7M8d08j2-A	vab 1 ol troQamg@	Total A	no	753M	
280-95797-8MB n	X13-n1-ddM	Total A	no	753M	
280-95797-8MB nD	X13-n1-ddM	Total A	no	753M	

Analysis Batch: 367327

5aL Sample ID	Client Sample ID	Prep Dype	T attriM	T ethox	Prep Batch
280-95797-8M	X13-n1-ddM	Total A	no	80d51	7M8d08
280-95797-86	X13-n1-dd6	Total A	no	80d51	7M8d08
280-95797-89	X13-n1-dd9	Total A	no	80d51	7M8d08
B h 280-7M8d08jd-A	BetkoOh@L	Total A	no	80d51	7M8d08
v1 n 280-7M8d08j2-A	vab 1 ol troQamg@	Total A	no	80d51	7M8d08
280-95797-8MB n	X13-n1-ddM	Total A	no	80d51	7M8d08
280-95797-8MB nD	X13-n1-ddM	Total A	no	80d51	7M8d08

Analysis Batch: 367d4d

5aL Sample ID	Client Sample ID	Prep Dype	T attriM	T ethox	Prep Batch
280-95797-88	X13-n1-dd8	Total A	no	80d51	7M8d08
280-95797-90	X13-n1-d20	Total A	no	80d51	7M8d08
280-95797-9d	X13-n1-d2d	Total A	no	80d51	7M8d08
280-95797-92	X13-n1-d22	Total A	no	80d51	7M8d08

Analysis Batch: 367631

5aL Sample ID	Client Sample ID	Prep Dype	T attriM	T ethox	Prep Batch
280-95797-8d	X13-n1-dd2	Total A	no	80d51	7M8d00
280-95797-82	X13-n1-dd7	Total A	no	80d51	7M8d00
280-95797-87	X13-n1-dd3	Total A	no	80d51	7M8d00
280-95797-83	X13-n1-dd5	Total A	no	80d51	7M8d00
280-95797-85	X13-n1-DN. 6	Total A	no	80d51	7M8d00
B h 280-7M8d00jd-A	BetkoOh@L	Total A	no	80d51	7M8d00
v1 n 280-7M8d00j2-A	vab 1 ol troQamg@	Total A	no	80d51	7M8d00

GenerabChemistry

Analysis Batch: 360691

5aL Sample ID	Client Sample ID	Prep Dype	T attriM	T ethox	Prep Batch
280-95797-8d	X13-n1-dd2	Total A	no	BoistSre	

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QC Association Summary

1 of 1: nta tec 1 ol sS u 1 orgp
 . roectjnite: nta tec 1 / V - Xal ue 1 ,

TestAmerica Job ID: 280-95797-5

General Chemistry (Continued)

Analysis Batch: 360691 (Continued)

5aL Sample ID	Client Sample ID	Prep Type	Trim	Method	Prep Batch
280-95797-82	X13-n1-dd7	Total A	no	BoistSre	
280-95797-87	X13-n1-dd3	Total A	no	BoistSre	
280-95797-83	X13-n1-dd5	Total A	no	BoistSre	
280-95797-85	X13-n1-DN. 6	Total A	no	BoistSre	
280-95797-8M	X13-n1-ddM	Total A	no	BoistSre	
280-95797-86	X13-n1-dd6	Total A	no	BoistSre	
280-95797-88	X13-n1-dd8	Total A	no	BoistSre	
280-95797-89	X13-n1-dd9	Total A	no	BoistSre	
280-95797-90	X13-n1-d20	Total A	no	BoistSre	
280-95797-9d	X13-n1-d2d	Total A	no	BoistSre	
280-95797-92	X13-n1-d22	Total A	no	BoistSre	
280-95797-8d DN	X13-n1-dd2	Total A	no	BoistSre	
280-95797-9d DN	X13-n1-d2d	Total A	no	BoistSre	

Lab Chronicle

Client: Stantec Consulting Corp.
 Project Site: Stantec C/ V - Xangel R/C,

TestAmerica Job ID: 280-94797-4

Client Sample ID: RC4-SC-558

Date Collected: 01/10/57 57:83

Date Received: 01/15/57 56:33

Lab Sample ID: 820-93191-25

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-558

Date Collected: 01/10/57 57:83

Date Received: 01/15/57 56:33

Lab Sample ID: 820-93191-25

Matrix: Solid

Percent Solids: 24.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	6rep	4074			4.01 g	4 mE	7L8582	03j04j51 57:53	TNO	TAE DNW
TotaljWA	AnalRsis	8054C		5	0.5 mE	4 mE	7L8477	03j08j51 02:74	MDM	TAE DNW
TotaljWA	6rep	743L			70.4 g	5 mE	7L8500	03j04j51 08:34	JDK	TAE DNW
TotaljWA	AnalRsis	8054C		5			7L8L72	03j55j51 02:00	TNO	TAE DNW

Client Sample ID: RC4-SC-551

Date Collected: 01/10/57 57:10

Date Received: 01/15/57 56:33

Lab Sample ID: 820-93191-28

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-551

Date Collected: 01/10/57 57:10

Date Received: 01/15/57 56:33

Lab Sample ID: 820-93191-28

Matrix: Solid

Percent Solids: 23.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	6rep	4074			3.17 g	4 mE	7L8582	03j04j51 57:53	TNO	TAE DNW
TotaljWA	AnalRsis	8054C		5	0.5 mE	4 mE	7L8477	03j08j51 07:00	MDM	TAE DNW
TotaljWA	6rep	743L			75.0 g	5 mE	7L8500	03j04j51 08:34	JDK	TAE DNW
TotaljWA	AnalRsis	8054C		5			7L8L72	03j55j51 02:24	TNO	TAE DNW

Client Sample ID: RC4-SC-554

Date Collected: 01/10/57 57:13

Date Received: 01/15/57 56:33

Lab Sample ID: 820-93191-21

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-554

Date Collected: 01/10/57 57:13

Date Received: 01/15/57 56:33

Lab Sample ID: 820-93191-21

Matrix: Solid

Percent Solids: 24.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	6rep	4074			4.24 g	4 mE	7L8582	03j04j51 57:53	TNO	TAE DNW

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
 60 Rect Site: Stantec C/ V - Xangel RyC,

TestAmerica Job ID: 280-94797-4

Client Sample ID: RC4-SC-554

Lab Sample ID: 820-93191-21

Date Collected: 01/10/57 57:13

Matrix: Solid

Date Received: 01/15/57 56:33

Percent Solids: 24.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	AnalRsis	8054C		2	0.5 mE	4 mE	7L8477	03j08j51 07:23	MDM	TAE DNW
TotaljWA	6rep	743L			70.1 g	5 mE	7L8500	03j04j51 08:34	JDK	TAE DNW
TotaljWA	AnalRsis	8054C		5			7L8L72	03j55j51 02:39	TNO	TAE DNW

Client Sample ID: RC4-SC-553

Lab Sample ID: 820-93191-24

Date Collected: 01/10/57 57:40

Matrix: Solid

Date Received: 01/15/57 56:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-553

Lab Sample ID: 820-93191-24

Date Collected: 01/10/57 57:40

Matrix: Solid

Date Received: 01/15/57 56:33

Percent Solids: 24.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	6rep	4074			4.20 g	4 mE	7L8582	03j04j51 57:53	TNO	TAE DNW
TotaljWA	AnalRsis	8054C		5	0.5 mE	4 mE	7L8477	03j08j51 07:39	MDM	TAE DNW
TotaljWA	6rep	743L			75.3 g	5 mE	7L8500	03j04j51 08:34	JDK	TAE DNW
TotaljWA	AnalRsis	8054C		5			7L8L72	03j55j51 07:53	TNO	TAE DNW

Client Sample ID: RC4-SC-DUP7

Lab Sample ID: 820-93191-23

Date Collected: 01/10/57 57:43

Matrix: Solid

Date Received: 01/15/57 56:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-DUP7

Lab Sample ID: 820-93191-23

Date Collected: 01/10/57 57:43

Matrix: Solid

Date Received: 01/15/57 56:33

Percent Solids: 21.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	6rep	4074			4.07 g	4 mE	7L8582	03j04j51 57:53	TNO	TAE DNW
TotaljWA	AnalRsis	8054C		5	0.5 mE	4 mE	7L8477	03j08j51 03:78	MDM	TAE DNW
TotaljWA	6rep	743L			70.5 g	5 mE	7L8500	03j04j51 08:34	JDK	TAE DNW
TotaljWA	AnalRsis	8054C		5			7L8L72	03j55j51 07:78	TNO	TAE DNW

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
 Project Site: Stantec C/ V - Xangel R/C,

TestAmerica Job ID: 280-94797-4

Client Sample ID: RC4-SC-556

Lab Sample ID: 820-93191-26

Date Collected: 01/10/57 57:43

Matrix: Solid

Date Received: 01/15/57 56:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-556

Lab Sample ID: 820-93191-26

Date Collected: 01/10/57 57:43

Matrix: Solid

Date Received: 01/15/57 56:33

Percent Solids: 25.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	6rep	4074			4.59 g	4 mE	7L8582	03j04j51 57:53	TNO	TAE DNW
TotaljWA	AnalRsis	8054C		5	0.5 mE	4 mE	7L8477	03j08j51 04:07	MDM	TAE DNW
TotaljWA	6rep	743L			75.3 g	5 mE	7L8508	03j04j51 08:34	JDK	TAE DNW
TotaljWA	AnalRsis	8054C		5			7L8738	03j01j51 03:7L	TNO	TAE DNW

Client Sample ID: RC4-SC-557

Lab Sample ID: 820-93191-27

Date Collected: 01/10/57 57:30

Matrix: Solid

Date Received: 01/15/57 56:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-557

Lab Sample ID: 820-93191-27

Date Collected: 01/10/57 57:30

Matrix: Solid

Date Received: 01/15/57 56:33

Percent Solids: 21.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	6rep	4074			3.83 g	4 mE	7L8582	03j04j51 57:53	TNO	TAE DNW
TotaljWA	AnalRsis	8054C		5	0.5 mE	4 mE	7L8477	03j08j51 0L:58	MDM	TAE DNW
TotaljWA	6rep	743L			70.2 g	5 mE	7L8508	03j04j51 08:34	JDK	TAE DNW
TotaljWA	AnalRsis	8054C		5			7L8738	03j01j51 04:39	TNO	TAE DNW

Client Sample ID: RC4-SC-552

Lab Sample ID: 820-93191-22

Date Collected: 01/10/57 57:33

Matrix: Solid

Date Received: 01/15/57 56:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-552

Lab Sample ID: 820-93191-22

Date Collected: 01/10/57 57:33

Matrix: Solid

Date Received: 01/15/57 56:33

Percent Solids: 27.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	6rep	4074			3.94 g	4 mE	7L8582	03j04j51 57:53	TNO	TAE DNW

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
6roectjSite: Stantec C/ V - XangelRyC,

TestAmerica Job ID: 280-94797-4

Client Sample ID: RC4-SC-552

Lab Sample ID: 820-93191-22

Date Collected: 01/10/57 57:33

Matrix: Solid

Date Received: 01/15/57 56:33

Percent Solids: 27.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	AnalRsis	8054C		5	0.5 mE	4 mE	7L8812	03j55j51 57:0L	MDM	TAE DNW
TotaljWA	6rep	743L			70.3 g	5 mE	7L8508	03j04j51 08:34	JDK	TAE DNW
TotaljWA	AnalRsis	8054C		50			7L8404	03j08j51 57:48	TNO	TAE DNW

Client Sample ID: RC4-SC-559

Lab Sample ID: 820-93191-29

Date Collected: 01/10/57 52:00

Matrix: Solid

Date Received: 01/15/57 56:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-559

Lab Sample ID: 820-93191-29

Date Collected: 01/10/57 52:00

Matrix: Solid

Date Received: 01/15/57 56:33

Percent Solids: 27.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	6rep	4074			4.03 g	4 mE	7L8582	03j04j51 57:53	TNO	TAE DNW
TotaljWA	AnalRsis	8054C		5	0.5 mE	4 mE	7L8477	03j08j51 01:01	MDM	TAE DNW
TotaljWA	6rep	743L			75.1 g	5 mE	7L8508	03j04j51 08:34	JDK	TAE DNW
TotaljWA	AnalRsis	8054C		5			7L8738	03j01j51 0L:79	TNO	TAE DNW

Client Sample ID: RC4-SC-580

Lab Sample ID: 820-93191-90

Date Collected: 01/10/57 52:03

Matrix: Solid

Date Received: 01/15/57 56:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-580

Lab Sample ID: 820-93191-90

Date Collected: 01/10/57 52:03

Matrix: Solid

Date Received: 01/15/57 56:33

Percent Solids: 22.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	6rep	4074			3.93 g	4 mE	7L8582	03j04j51 57:53	TNO	TAE DNW
TotaljWA	AnalRsis	8054C		2	0.5 mE	4 mE	7L8477	03j08j51 01:72	MDM	TAE DNW
TotaljWA	6rep	743L			75.0 g	5 mE	7L8508	03j04j51 08:34	JDK	TAE DNW
TotaljWA	AnalRsis	8054C		4			7L8404	03j08j51 53:38	TNO	TAE DNW

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
6roectjSite: Stantec C/ V - XangelRyC,

TestAmerica Job ID: 280-94797-4

Client Sample ID: RC4-SC-585

Lab Sample ID: 820-93191-95

Date Collected: 01/10/57 52:50

Matrix: Solid

Date Received: 01/15/57 56:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:42	XSO	TAE DNW

Client Sample ID: RC4-SC-585

Lab Sample ID: 820-93191-95

Date Collected: 01/10/57 52:50

Matrix: Solid

Date Received: 01/15/57 56:33

Percent Solids: 22.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	6rep	4074			4.2L g	4 mE	7L8582	03j04j51 57:53	TNO	TAE DNW
TotaljWA	AnalRsis	8054C		20	0.5 mE	4 mE	7L8477	03j08j51 01:41	MDM	TAE DNW
TotaljWA	6rep	743L			70.4 g	5 mE	7L8508	03j04j51 08:34	JDK	TAE DNW
TotaljWA	AnalRsis	8054C		50			7L8404	03j08j51 54:52	TNO	TAE DNW

Client Sample ID: RC4-SC-588

Lab Sample ID: 820-93191-98

Date Collected: 01/10/57 52:53

Matrix: Solid

Date Received: 01/15/57 56:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	AnalRsis	Ooisture		5			7L1L92	03j05j51 5L:3L	XSO	TAE DNW

Client Sample ID: RC4-SC-588

Lab Sample ID: 820-93191-98

Date Collected: 01/10/57 52:53

Matrix: Solid

Date Received: 01/15/57 56:33

Percent Solids: 29.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TotaljWA	6rep	4074			3.1L g	4 mE	7L8582	03j04j51 57:53	TNO	TAE DNW
TotaljWA	AnalRsis	8054C		20	0.5 mE	4 mE	7L8477	03j08j51 08:22	MDM	TAE DNW
TotaljWA	6rep	743L			70.3 g	5 mE	7L8508	03j04j51 08:34	JDK	TAE DNW
TotaljWA	AnalRsis	8054C		50			7L8404	03j08j51 54:71	TNO	TAE DNW

Laboratory References:

TAE DNW= TestAmerica Denvery3944 Yarrow StreetyArvadayC, 80002yTNE (707)17L-0500

Accreditation/Certification Summary

Client: Stantec Consulting Corp.

TestAmerica Job ID: 280-94696-4

Project Site: Stantec C/ V - Xangel R/C,

Laboratory: TestAmerica Denver

All accreditation/certifications of the laboratory are listed. Not all accreditation/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2NA	DoD ENA1		290L.07	70-67-7L
A2NA	IS, jIEC 7L024		290L.07	70-67-7L
Alabama	State 1 program	3	30L60	09-60-72 5
Alaska k STU	State 1 program	70	(ST-60	03-04-78
Arizona	State 1 program	9	Az 0L76	72-20-7L
Arkansas DEZ	State 1 program	Q	88-0Q8L	0Q07-7L
California	State 1 program	9	2476	07-08-78 5
Connecticut	State 1 program	7	1H-0Q8Q	09-60-78
Florida	h ENA1	3	E8LQQL	0Q60-7L
Georgia	State 1 program	3	hJA	07-08-78
Illinois	h ENA1	4	20007L	03-60-78
Iowa	State 1 program	L	6L0	72-07-78 5
Kansas	h ENA1	L	E-707QQ	03-60-7L 5
Louisiana	h ENA1	Q	0209Q	0Q60-7L
Maine	State 1 program	7	C, 0002	06-06-79
Minnesota	h ENA1	4	8-999-304	72-67-7L 5
Nebraska	State 1 program	9	C, 002Q	0L-67-7L
New Hampshire	h ENA1	7	204670	03-28-7L
New Jersey	h ENA1	2	C, 003	0Q60-7L
New York	h ENA1	2	779QB	03-07-78
North Carolina kWWjSWU	State 1 program	3	648	72-67-7L
North Dakota	State 1 program	8	X-063	07-09-78
Ohio	State 1 program	Q	8Q73	08-67-7L
Oregon	h ENA1	70	3024	07-08-78
Pennsylvania	h ENA1	6	QB-00QQB	0L-67-7L
South Carolina	State 1 program	3	L2002007	07-09-7L 5
Texas	h ENA1	Q	T703L03786-7Q-72	09-60-7L
(SDA	FeQeral		1660-7Q0069L	72-74-79
(taf	h ENA1	8	C, 0002Q	0L-67-7L
/ irginia	h ENA1	6	3Q262	0Q73-7L
Washington	State 1 program	70	C486	08-02-7L
West / irginia DE1	State 1 program	6	643	77-60-7L
Wisconsin	State 1 program	4	999Q74360	08-67-7L
Wyoming k STU	A2NA	8	290L.07	70-67-7L

5 Accreditation/Certification renewal pending - accreditation/certification considered valid

TestAmerica Denver

Arvada, CO 80002-4517
phone 303.736.0100 fax 303.431.7171

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Bethany Lucente Tel/Fax: (303) 250-4718		Site Contact: Bethany Lucente		Date: 3/31/2017	
Slantec				Lab Contact: Jamie Ide		Carrier: Courier	
2000 South Colorado Blvd., Suite 2-300		Analysis Turnaround Time		Perform MS / MSD (Y / N)		COC No: 1 of 5 Pages	
Denver, CO 80222		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS TAT if different from Below ASAP <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Filtered Sample (Y / N)		Sampler: Slauthamer/Jones	
(303) 758-4058 Phone		Sample Date		Sample Type (C=Comp, G=Grab)		For Lab Use Only:	
(303) 758-4828 FAX		Sample Time		# of Cont.		Walk-in Client:	
Project Name: CPL-Rangely C-4		Matrix				Lab Sampling:	
Site: CPL Rangely						Job / SDG No.:	
P O # 203720102						Sample Specific Notes:	

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Perform MS / MSD (Y / N)	Filtered Sample (Y / N)	RCRA	NPDES	DW	Other
RC4-SC-38	3/30/2017	1005	G	Soil	2	N	N	X	X		
RC4-SC-39	3/30/2017	1010	G	Soil	2	N	N	X	X		
RC4-SC-40	3/30/2017	1015	G	Soil	2	N	N	X	X		
RC4-SC-41	3/30/2017	1020	G	Soil	2	N	N	X	X		
RC4-SC-42	3/30/2017	1025	G	Soil	2	N	N	X	X		
RC4-SC-43	3/30/2017	1030	G	Soil	2	N	N	X	X		
RC4-SC-44	3/30/2017	1035	G	Soil	2	N	N	X	X		
RC4-SC-45	3/30/2017	1040	G	Soil	2	N	N	X	X		
RC4-SC-46	3/30/2017	1045	G	Soil	2	N	N	X	X		
RC4-SC-47	3/30/2017	1050	G	Soil	2	N	N	X	X		
RC4-SC-48	3/30/2017	1055	G	Soil	2	N	N	X	X		
RC4-SC-49	3/30/2017	1100	G	Soil	2	N	N	X	X		
RC4-SC-50	3/30/2017	1105	G	Soil	2	N	N	X	X		
RC4-SC-51	3/30/2017	1110	G	Soil	2	N	N	X	X		
RC4-SC-52	3/30/2017	1115	G	Soil	2	N	N	X	X		
RC4-SC-53	3/30/2017	1120	G	Soil	2	N	N	X	X		
RC4-SC-54	3/30/2017	1125	G	Soil	2	N	N	X	X		
RC4-SC-55	3/30/2017	1130	G	Soil	2	N	N	X	X		
RC4-SC-56	3/30/2017	1135	G	Soil	2	N	N	X	X		
RC4-SC-57	3/30/2017	1140	G	Soil	2	N	N	X	X		
RC4-SC-58	3/30/2017	1145	G	Soil	2	N	N	X	X		



Reed 3-31-17 1655 TAD

0.1% S.13.9. S.4 TAD 70.0 Trans Per RP 3-31-17

Chain of Custody Record

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Bethany Lucente		Site Contact: Bethany Lucente		Date: 3/31/2017		COC No: 3 of 5 Pages		
Tel/Fax: (303) 250-4718		Analysis Turnaround Time		Lab Contact: Jamie Ide		Carrier: Courier		Sampler: Stauthamer/Jones		
2000 South Colorado Blvd., Suite 2-300		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS						For Lab Use Only:		
Denver, CO 80222		TAT if different from Below						Walk-in Client:		
(303) 758-4058 Phone		ASAP						Lab Sampling:		
(303) 758-4828 FAX		2 weeks						Job / SDG No.:		
Project Name: CPL-Rangely C-4		1 week								
Site: CPL Rangely		2 days								
P O # 203720102		1 day								
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	GRO-TEPH 8015C	DRO-TEPH 8015C	Sample Specific Notes:
RC4-SC-78	3/30/2017	1325	G	Soil	2	N	N	X	X	
RC4-SC-79	3/30/2017	1330	G	Soil	2	N	N	X	X	
RC4-SC-80	3/30/2017	1335	G	Soil	2	N	N	X	X	
RC4-SC-DUP3	3/30/2017	1335	G	Soil	4	N	N	X	X	
RC4-SC-81	3/30/2017	1450	G	Soil	2	N	N	X	X	
RC4-SC-82	3/30/2017	1455	G	Soil	2	N	N	X	X	
RC4-SC-83	3/30/2017	1500	G	Soil	2	N	N	X	X	
RC4-SC-84	3/30/2017	1505	G	Soil	2	N	N	X	X	
RC4-SC-85	3/30/2017	1510	G	Soil	2	N	N	X	X	
RC4-SC-86	3/30/2017	1515	G	Soil	2	N	N	X	X	
RC4-SC-87	3/30/2017	1520	G	Soil	2	N	N	X	X	
RC4-SC-DUP4	3/30/2017	1520	G	Soil	4	N	N	X	X	
RC4-SC-88	3/30/2017	1525	G	Soil	2	N	N	X	X	
RC4-SC-89	3/30/2017	1530	G	Soil	2	N	N	X	X	
RC4-SC-90	3/30/2017	1535	G	Soil	2	N	N	X	X	
RC4-SC-91	3/30/2017	1540	G	Soil	2	N	N	X	X	
RC4-SC-92	3/30/2017	1545	G	Soil	6	N	Y	X	X	
RC4-SC-93	3/30/2017	1550	G	Soil	2	N	N	X	X	
RC4-SC-94	3/30/2017	1555	G	Soil	2	N	N	X	X	
RC4-SC-95	3/30/2017	1600	G	Soil	2	N	N	X	X	
RC4-SC-96	3/30/2017	1605	G	Soil	2	N	N	X	X	

Revised 3-31-17 1655 TAD

Chain of Custody Record

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Bethany Lucente		Site Contact: Bethany Lucente		Date: 3/31/2017		COC No: 14 of 5 Pages	
Tel/Fax: (303) 250-4718		Analysis Turnaround Time		Lab Contact: Jamie Ide		Carrier: Courier		Sampler: Stautthamer/Jones	
2000 South Colorado Blvd., Suite 2-300		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS		Perform MS / MSD (Y / N)				For Lab Use Only:	
Denver, CO 80222		TAT if different from Below		Filtered Sample (Y / N)				Walk-in Client:	
(303) 758-4058 Phone		ASAP		DRO-TEPH 8015C				Lab Sampling:	
(303) 758-4828 FAX		<input checked="" type="checkbox"/> 2 weeks		GRO-TEPH 8015C				Job / SDG No.:	
Project Name: CPL-Rangely C-4		<input type="checkbox"/> 1 week							
Site: CPL Rangely		<input type="checkbox"/> 2 days							
P O # 203720102		<input type="checkbox"/> 1 day							
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Sample Specific Notes:	
RC4-SC-DUP5	3/30/2017	1610	G	Soil	4	N	N		
RC4-SC-97	3/30/2017	1610	G	Soil	6	N	Y		
RC4-SC-98	3/30/2017	1615	G	Soil	2	N	N		
RC4-SC-99	3/30/2017	1620	G	Soil	2	N	N		
RC4-SC-100	3/30/2017	1625	G	Soil	2	N	N		
RC4-SC-101	3/30/2017	1630	G	Soil	2	N	N		
RC4-SC-102	3/30/2017	1635	G	Soil	2	N	N		
RC4-SC-103	3/30/2017	1640	G	Soil	2	N	N		
RC4-SC-104	3/30/2017	1645	G	Soil	2	N	N		
RC4-SC-105	3/30/2017	1650	G	Soil	2	N	N		
RC4-SC-DUP6	3/30/2017	1650	G	Soil	4	N	N		
RC4-SC-106	3/30/2017	1655	G	Soil	6	N	Y		
RC4-SC-107	3/30/2017	1700	G	Soil	2	N	N		
RC4-SC-108	3/30/2017	1705	G	Soil	2	N	N		
RC4-SC-109	3/30/2017	1710	G	Soil	2	N	N		
RC4-SC-110	3/30/2017	1715	G	Soil	2	N	N		
RC4-SC-111	3/30/2017	1720	G	Soil	2	N	N		
RC4-SC-112	3/30/2017	1725	G	Soil	2	N	N		
RC4-SC-113	3/30/2017	1730	G	Soil	2	N	N		
RC4-SC-114	3/30/2017	1735	G	Soil	2	N	N		
RC4-SC-115	3/30/2017	1740	G	Soil	2	N	N		

Reed PETA 3-31-17 1655 T40

Arvada, CO 80002-4517
phone 303.736.0100 fax 303.431.7171

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Bethany Lucente		Site Contact: Bethany Lucente		Date: 3/31/2017	
Stanlec		Tel/Fax: (303) 250-4718		Lab Contact: Jamie Ide		Carrier: Courier	
2000 South Colorado Blvd., Suite 2-300		Analysis Turnaround Time		Perform MS / MSD (Y / N)		COC No: 5 of 5 Pages	
Denver, CO 80222		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS		Filtered Sample (Y / N)		Sampler: Staulhamer/Jones	
(303) 758-4058 Phone		TAT if different from Below		GRO-TEPH 8015C		For Lab Use Only:	
(303) 758-4828 FAX		ASAP		DRO-TEPH 8015C		Walk-in Client:	
Project Name: CPL-Rangely C-4		<input checked="" type="checkbox"/> 2 weeks				Lab Sampling:	
Site: CPL Rangely		<input type="checkbox"/> 1 week				Job / SDG No.:	
P O # 203720102		<input type="checkbox"/> 2 days					
		<input type="checkbox"/> 1 day					

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sample Specific Notes:
RC4-SC-DUP7	3/30/2017	1745	G	Soil	4	
RC4-SC-116	3/30/2017	1745	G	Soil	6	
RC4-SC-117	3/30/2017	1750	G	Soil	2	
RC4-SC-118	3/30/2017	1755	G	Soil	2	
RC4-SC-119	3/30/2017	1800	G	Soil	2	
RC4-SC-120	3/30/2017	1805	G	Soil	2	
RC4-SC-121	3/30/2017	1810	G	Soil	2	
RC4-SC-122	3/30/2017	1815	G	Soil	2	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Special Instructions/QC Requirements & Comments: Metals Include Ba, B, Cd, Cr, Cu, Pb, Ni, Se, Ag, Zn

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temp. (°C): Obs'd: _____		Therm ID No.: _____	
Relinquished by: Mike Staulhamer/ide		Received by: [Signature]		Date/Time: 3/31/17 1655	
Relinquished by:		Received by:		Date/Time:	
Relinquished by:		Received in Laboratory by:		Date/Time:	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-95393-5

Login Number: 95393

List Source: TestAmerica Denver

List Number: 1

Creator: Pottruff, Reed W

Question	Answer	Comment
Activity was conducted in a background measurement by a survey meter.	No	
Is the container seal intact, present?	Yes	
Sample seals, present?	Yes	
Is the cooler or samples not appear to have been compromised or tampered with?	Yes	
Samples were received on ice.	Yes	
Cooler temperature is acceptable.	False	SAMPLE DLS=LAE/ DCL M = UN=UE/ D ALCYLE UI = Uf =LF M
Cooler temperature is recorded.	Yes	
CUC is present.	Yes	
CUC is, in an illegible.	Yes	
CUC is, in it all pertinent information.	Yes	
Is the sample name present on CUC?	Yes	
Are there no discrepancies between the containers received and the CUC.	False	FSSY? CUN=/ YLAS f UA EI MS/ F MPLS
Samples are received in the Ring time (during tests) immediately.	Yes	
Sample containers have legible labels.	Yes	
Containers are not broken or leaking.	Yes	
Sample collection times are recorded.	Yes	
Appropriate sample containers are used.	Yes	
Sample bottles are completely, in.	Yes	
Sample preservation, in.	No	
Is there sufficient dol., or all the test analyses include any test results?	Yes	
Containers are being zeroed, no space or bubble is visible.	No	
Multiple samples are not present.	Yes	
Samples are not being split or compositing.	Yes	
Is the C-13 or C-14?	No	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver

4955 Yarrow Street

Arvada, CO 80002

Tel: (303)736-0100

TestAmerica Job ID: 280-95486-1

Client Project/Site: Stantec CVX - Rangely, CO

For:

Stantec Consulting Corp.

2000 South Colorado Blvd

Suite 2-300

Denver, Colorado 80222

Attn: Ms. Bethany Lucente



Authorized for release by:

4/19/2017 4:08:12 PM

Jamie Ide, Project Manager I

(303)736-0126

jamie.ide@testamericainc.com

LINKS

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results through

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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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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95486-1

Qualifiers

GC SmV

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F2	MS/MSD RPD exceeds control limits
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

GC cep i SmV

Qualifier	Qualifier Description
X	Surrogate is outside control limits
F2	MS/MSD RPD exceeds control limits
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These are only used abbreviations that 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, 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)

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95486-1

Job ID: 280-95486-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Stantec Consulting Corp.
Project: Stantec CVX - Rangely, CO
Report Number: 280-95486-1

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 on 4/4/2017 9:05 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.1° C.

One of two pages of the chain of custody were not relinquished by the client. The laboratory will proceed with the requested analyses on all pages of the chain of custody unless instructed otherwise. The client was notified on 4/5/2017.

GASOLINE RANGE ORGANICS (GRO)

a,a,a-Trifluorotoluene failed the surrogate recovery criteria low for RC4-SC-123 (280-95486-1), RC4-SC-132 (280-95486-10), RC4-SC-133 (280-95486-11), RC4-SC-134 (280-95486-12), RC4-SC-135 (280-95486-13), RC4-SC-136 (280-95486-14), RC4-SC-124 (280-95486-2), RC4-SC-125 (280-95486-3), RC4-SC-127 (280-95486-5), RC4-SC-130 (280-95486-8), RC4-SC-131 (280-95486-9) and RC4-SC-129MSD (280-95486-7MSD). Evidence of matrix interference is present; therefore, corrective action was not performed.

GRO (C6-C10) failed the recovery criteria low for the MS/MSD of sample RC4-SC-129 (280-95486-7). GRO (C6-C10) exceeded the RPD limit. The associated LCS was in control; therefore, corrective action was not performed.

Sample RC4-SC-DUP8 (280-95486-15)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

DIESEL RANGE ORGANICS

These samples have standing water: RC4-SC-123 (280-95486-1), RC4-SC-124 (280-95486-2), RC4-SC-133 (280-95486-11) and RC4-SC-135 (280-95486-13)

The following samples could not be thoroughly homogenized before sub-sampling was performed due to sample matrix: RC4-SC-125 (280-95486-3), RC4-SC-126 (280-95486-4), RC4-SC-127 (280-95486-5), RC4-SC-128 (280-95486-6), RC4-SC-129 (280-95486-7), RC4-SC-129 (280-95486-7[MSJ]), RC4-SC-129 (280-95486-7[MSD]), RC4-SC-130 (280-95486-8), RC4-SC-131 (280-95486-9), RC4-SC-132 (280-95486-10), RC4-SC-136 (280-95486-14) and RC4-SC-DUP8 (280-95486-15). The sample were wet clay.

The initial aliquot and surrogate aliquot used for extraction of the following samples were split between two extraction vessels with the routine volume of solvent added to each vessel: RC4-SC-129 (280-95486-7), RC4-SC-129 (280-95486-7[MSJ]), RC4-SC-129 (280-95486-7[MSD]) and RC4-SC-DUP8 (280-95486-15). After the extraction, the extracts from both vessels were combined and concentrated. This was done due to sample matrix was especially wet.

o-Terphenyl failed the surrogate recovery criteria high for RC4-SC-125 (280-95486-3). Matrix interference was not obvious, and additional re-extraction would be performed outside of analytical holding time.

o-Terphenyl failed the surrogate recovery criteria high for MB 280-368299/1-A and LCS 280-368299/2-A. The associated analyte recoveries

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95486-1

Job ID: 280-95486-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

were in control for the MB and LCS. Additionally, all samples with the exception of sample RC4-SC-125 (280-95486-3) exhibited surrogate recoveries within control limits; therefore, corrective action was not performed.

DRO (C10-C28) failed the recovery criteria for the MS/MSD of sample RC4-SC-129 (280-95486-7). DRO (C10-C28) exceeded the RPD limit. The associated LCS was in control; therefore, corrective action was not performed.

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

PERCENT SOLIDS

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

Detection Summary

Instrument: uStec I oSgntiSp I or. P
 Project Write: uStec I XR - y aSpn Q (

TestAmerica Job ID: 280-95781-C

Client Sample ID: RC4-SC-30L

ba2 Sample ID: 089-57481-3

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil	Fac	D	Method	Prep Type
y (4 1-I COK	5P		CF	0F7C	mpVp	C	*		80C5I	TotalNA
Dy (4 C0-I 28K	12		7P	0P7	mpVp	C	*		80C5I	TotalNA

Client Sample ID: RC4-SC-304

ba2 Sample ID: 089-57481-0

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil	Fac	D	Method	Prep Type
y (4 1-I COK	CF		CF	0P8	mpVp	C	*		80C5I	TotalNA
Dy (4 C0-I 28K	8P		7P	0P3G	mpVp	C	*		80C5I	TotalNA

Client Sample ID: RC4-SC-307

ba2 Sample ID: 089-57481-L

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil	Fac	D	Method	Prep Type
y (4 1-I COK	C9		CF	0F70	mpVp	C	*		80C5I	TotalNA
Dy (4 C0-I 28K	76		5P	0P7	mpVp	C	*		80C5I	TotalNA

Client Sample ID: RC4-SC-301

ba2 Sample ID: 089-57481-4

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil	Fac	D	Method	Prep Type
y (4 1-I COK	66		CF	0F72	mpVp	C	*		80C5I	TotalNA
Dy (4 C0-I 28K	52		5P	0P8G	mpVp	C	*		80C5I	TotalNA

Client Sample ID: RC4-SC-306

ba2 Sample ID: 089-57481-7

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil	Fac	D	Method	Prep Type
y (4 1-I COK	8P		CF	0P9	mpVp	C	*		80C5I	TotalNA
Dy (4 C0-I 28K	1P7		7P	0P2	mpVp	C	*		80C5I	TotalNA

Client Sample ID: RC4-SC-308

ba2 Sample ID: 089-57481-1

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil	Fac	D	Method	Prep Type
y (4 1-I COK	5C		CF	0F72	mpVp	C	*		80C5I	TotalNA
Dy (4 C0-I 28K	600		5P	0P5	mpVp	C	*		80C5I	TotalNA

Client Sample ID: RC4-SC-305

ba2 Sample ID: 089-57481-6

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil	Fac	D	Method	Prep Type
y (4 1-I COK	10	F2	CF	0F75	mpVp	C	*		80C5I	TotalNA
Dy (4 C0-I 28K	6C0	F2	5P	0P7	mpVp	C	*		80C5I	TotalNA

Client Sample ID: RC4-SC-3L9

ba2 Sample ID: 089-57481-8

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil	Fac	D	Method	Prep Type
y (4 1-I COK	CF	J	CF	0F72	mpVp	C	*		80C5I	TotalNA
Dy (4 C0-I 28K	66		5P	0P5	mpVp	C	*		80C5I	TotalNA

Client Sample ID: RC4-SC-3L3

ba2 Sample ID: 089-57481-5

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil	Fac	D	Method	Prep Type
y (4 1-I COK	CF	J	CF	0F7C	mpVp	C	*		80C5I	TotalNA
Dy (4 C0-I 28K	C10		5P	0P8	mpVp	C	*		80C5I	TotalNA

This Detection Summary, does not include radiochemical test results

TestAmerica DeSver

Detection Summary

Instrument: uStec I oSgntiSp I or. P
 Project Write: uStec I XR - y aSpn Q (

TestAmerica Job ID: 280-95781-C

Client Sample ID: RC4-SC-3L0

ba2 Sample ID: 089-57481-39

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil	Fac	D	Method	Prep Type
y (4 1-I COK	0F0	J	CF	0F8	mpVp	C	*	80C5I	TotalNA	
Dy (4 C0-I 28K	C90		5F0	0F7	mpVp	C	*	80C5I	TotalNA	

Client Sample ID: RC4-SC-3LL

ba2 Sample ID: 089-57481-33

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil	Fac	D	Method	Prep Type
y (4 1-I COK	8F0		CF	0F2	mpVp	C	*	80C5I	TotalNA	
Dy (4 C0-I 28K	1C		5F0	0F0	mpVp	C	*	80C5I	TotalNA	

Client Sample ID: RC4-SC-3L4

ba2 Sample ID: 089-57481-30

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil	Fac	D	Method	Prep Type
y (4 1-I COK	5F1		CF	0F8	mpVp	C	*	80C5I	TotalNA	
Dy (4 C0-I 28K	650		7F1	0F3	mpVp	C	*	80C5I	TotalNA	

Client Sample ID: RC4-SC-3L7

ba2 Sample ID: 089-57481-3L

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil	Fac	D	Method	Prep Type
y (4 1-I COK	7F0		CF	0F9	mpVp	C	*	80C5I	TotalNA	
Dy (4 C0-I 28K	22		7F1	0F3	mpVp	C	*	80C5I	TotalNA	

Client Sample ID: RC4-SC-3L1

ba2 Sample ID: 089-57481-34

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil	Fac	D	Method	Prep Type
Dy (4 C0-I 28K	C7		7F0	0FC	mpVp	C	*	80C5I	TotalNA	

Client Sample ID: RC4-SC-DUP8

ba2 Sample ID: 089-57481-37

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil	Fac	D	Method	Prep Type
y (4 1-I COK	96		6F0	CF	mpVp	2	*	80C5I	TotalNA	
Dy (4 C0-I 28K	7C0		1F0	CF	mpVp	C	*	80C5I	TotalNA	

Method Summary

LineSt: u taStec l oSsgntiSp l or. P
j ro/ectWrite: u taStec l XR - y aSpeñ Q W

TestAmerica Job ID: 280-94681-C

Method	Method Description	Protocol	Laboratory
80C4I	NoShampeSated WrpaSics gsiSp Gl VFID -Modified (GasoniSe y aSpe WrpaSics)	u5 861	TAL DEN
80C4I	NoShampeSated WrpaSics gsiSp Gl VFID -Modified (Dieseny aSpe WrpaSics)	u5 861	TAL DEN
Moistgre	j erceSt Moistgre	Ej A	TAL DEN

Protocol References:

Ej A = " u ESviroSmeStanj rotectionS ApeSc,

u5 861 = UTest Methods For EvangatiSp uorid 5 asteQ h, sicanW hemicanMethodsUThird EditioSCNovember C981 ASd Its " . datesP

Laboratory References:

TAL DEN = TestAmerica DeSverC6944 Yarrow utreetQArvadaQ W80002OTEL (303)731-0000

Sample Summary

Seut: gtautec n ousp\$u. n orPj
/ roectgite: gtautec n Ry - , au. e\$In 4

TestAmerica Job ID: 280-9538C-I

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-9538C-I	, n3-gn-l 2d	go\$7	03X03X6 | 0:03	03X03X6 2l :05
280-9538C-2	, n3-gn-l 23	go\$7	03X03X6 | 0:1 5	03X03X6 2l :05
280-9538C-d	, n3-gn-l 25	go\$7	03X03X6 | 0:2d	03X03X6 2l :05
280-9538C-3	, n3-gn-l 2C	go\$7	03X03X6 | 0:d0	03X03X6 2l :05
280-9538C-5	, n3-gn-l 26	go\$7	03X03X6 | 0:32	03X03X6 2l :05
280-9538C-C	, n3-gn-l 28	go\$7	03X03X6 | 0:50	03X03X6 2l :05
280-9538C-6	, n3-gn-l 29	go\$7	03X03X6 | 1 :0d	03X03X6 2l :05
280-9538C-8	, n3-gn-l d0	go\$7	03X03X6 | 1 :1 l	03X03X6 2l :05
280-9538C-9	, n3-gn-l dl	go\$7	03X03X6 | 1 :2l	03X03X6 2l :05
280-9538C-I 0	, n3-gn-l d2	go\$7	03X03X6 | 1 :dd	03X03X6 2l :05
280-9538C-I l	, n3-gn-l dd	go\$7	03X03X6 | 1 :35	03X03X6 2l :05
280-9538C-I 2	, n3-gn-l d3	go\$7	03X03X6 | 2:32	03X03X6 2l :05
280-9538C-I d	, n3-gn-l d5	go\$7	03X03X6 | 2:dC	03X03X6 2l :05
280-9538C-I 3	, n3-gn-l dC	go\$7	03X03X6 | 2:d0	03X03X6 2l :05
280-9538C-I 5	, n3-gn-DU/ 8	go\$7	03X03X6 | 1 :00	03X03X6 2l :05

Client Sample Results

Instrument: utastec | oSsgntiSp | or. P
 Project: utastec | XR - y aSpn Q 3

TestAmerica Job ID: 280-95184-C

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-SC-123
 Date Collected: 04/04/16 10:04
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-1
 Matri7: Solid
 Percent Solids: 6x.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (Cx-C10)	5.5		05	0.01	mp/Kp	☆	01/07/06 07:05	01/08/06 00:01	C
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	84	7	88 - 123				01/03/08 13:04	01/06/08 00:07	1

Client Sample ID: RC4-SC-124
 Date Collected: 04/04/16 10:15
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-2
 Matri7: Solid
 Percent Solids: 83.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (Cx-C10)	1.8		01	0.07	mp/Kp	☆	01/07/06 07:05	01/08/06 00:28	C
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	87	7	88 - 123				01/03/08 13:04	01/06/08 00:26	1

Client Sample ID: RC4-SC-125
 Date Collected: 04/04/16 10:23
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-3
 Matri7: Solid
 Percent Solids: 66.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (Cx-C10)	19		05	0.01	mp/Kp	☆	01/07/06 07:05	01/08/06 00:57	C
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	84	7	88 - 123				01/03/08 13:04	01/06/08 00:43	1

Client Sample ID: RC4-SC-12x
 Date Collected: 04/04/16 10:30
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-4
 Matri7: Solid
 Percent Solids: 65.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (Cx-C10)	33		05	0.01	mp/Kp	☆	01/07/06 07:05	01/08/06 00:08	C
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	93	7	88 - 123				01/03/08 13:04	01/06/08 01:16	1

Client Sample ID: RC4-SC-126
 Date Collected: 04/04/16 10:42
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-5
 Matri7: Solid
 Percent Solids: 80.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (Cx-C10)	8.2		05	0.07	mp/Kp	☆	01/07/06 07:05	01/08/06 00:17	C
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	87	7	88 - 123				01/03/08 13:04	01/06/08 01:13	1

Client Sample ID: RC4-SC-128
 Date Collected: 04/04/16 10:50
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-x
 Matri7: Solid
 Percent Solids: 63.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (Cx-C10)	51		05	0.01	mp/Kp	☆	01/07/06 07:05	01/08/06 02:06	C
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	104	7	88 - 123				01/03/08 13:04	01/06/08 02:08	1

TestAmerica DeSver

Client Sample Results

Instrument: uStec I oSsgniSp I or. P
 Project: uStec I XR - y aSpn Q 3

TestAmerica Job ID: 280-95184-C

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-SC-129
 Date Collected: 04/04/16 11:03
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-6
 Matrix: Solid
 Percent Solids: 60.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (Cx-C10)	x0	F2	CF	0.15	mp/Kp	☆	01/07/06 07:05	01/08/06 02:72	C
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	103		88 - 123				01/03/08 13:04	01/06/08 02:32	1

Client Sample ID: RC4-SC-130
 Date Collected: 04/04/16 11:11
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-8
 Matrix: Solid
 Percent Solids: 6x.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (Cx-C10)	1.3	J	CF	0.12	mp/Kp	☆	01/07/06 07:05	01/08/06 07:14	C
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	p2	7	88 - 123				01/03/08 13:04	01/06/08 03:10	1

Client Sample ID: RC4-SC-131
 Date Collected: 04/04/16 11:21
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-9
 Matrix: Solid
 Percent Solids: 66.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (Cx-C10)	1.2	J	CF	0.12	mp/Kp	☆	01/07/06 07:05	01/08/06 01:00	C
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	p8	7	88 - 123				01/03/08 13:04	01/06/08 01:10	1

Client Sample ID: RC4-SC-132
 Date Collected: 04/04/16 11:33
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-10
 Matrix: Solid
 Percent Solids: 80.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (Cx-C10)	0.40	J	CF	0.18	mp/Kp	☆	01/07/06 07:05	01/08/06 01:75	C
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	p8	7	88 - 123				01/03/08 13:04	01/06/08 01:34	1

Client Sample ID: RC4-SC-133
 Date Collected: 04/04/16 11:45
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-11
 Matrix: Solid
 Percent Solids: 65.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (Cx-C10)	8.9		CF	0.12	mp/Kp	☆	01/07/06 07:05	01/08/06 05:25	C
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	49	7	88 - 123				01/03/08 13:04	01/06/08 04:24	1

Client Sample ID: RC4-SC-134
 Date Collected: 04/04/16 12:42
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-12
 Matrix: Solid
 Percent Solids: 83.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (Cx-C10)	5.x		CF	0.18	mp/Kp	☆	01/07/06 07:05	01/08/06 05:19	C
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	p8	7	88 - 123				01/03/08 13:04	01/06/08 04:19	1

TestAmerica DeSver

Client Sample Results

Instrument: utastec | oSsgntiSp | or. P
 Project: utastec | XR - y aSpn Q 3

TestAmerica Job ID: 280-95184-C

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-SC-135

Date Collected: 04/04/16 12:3x

Date Received: 04/04/16 21:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (Cx-C10)	4.1		CP	0.79	mp/Kp	☆	01/07/06 07:05	01/08/06 04:01	C

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	88	7	88 - 123	01/03/08 13:04	01/06/08 0p:17	1

Lab Sample ID: 280-9548x-13

Matri7: Solid

Percent Solids: 80.5

Client Sample ID: RC4-SC-13x

Date Collected: 04/04/16 12:30

Date Received: 04/04/16 21:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gy 3 (I 4-I 00)	ND		CP	0.78	mp/Kp	☆	01/07/06 07:05	01/08/06 04:79	C

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	82	7	88 - 123	01/03/08 13:04	01/06/08 0p:39	1

Lab Sample ID: 280-9548x-14

Matri7: Solid

Percent Solids: 83.0

Client Sample ID: RC4-SC-DUP8

Date Collected: 04/04/16 11:00

Date Received: 04/04/16 21:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (Cx-C10)	93		7B	0.70	mp/Kp	☆	01/07/06 07:05	01/08/06 06:01	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	122		88 - 123	01/03/08 13:04	01/06/08 08:07	2

Lab Sample ID: 280-9548x-15

Matri7: Solid

Percent Solids: x2.5

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-SC-123

Date Collected: 04/04/16 10:04

Date Received: 04/04/16 21:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	x2		1B	0.81	mp/Kp	☆	01/04/06 07:00	01/08/06 04:28	C

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terhyen(I 5 urrX	113		79 - 114	01/0p08 13:00	01/01/08 0p:26	1

Lab Sample ID: 280-9548x-1

Matri7: Solid

Percent Solids: 6x.8

Client Sample ID: RC4-SC-124

Date Collected: 04/04/16 10:15

Date Received: 04/04/16 21:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	8.0		1B	0.86	mp/Kp	☆	01/04/06 07:00	01/08/06 04:57	C

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terhyen(I 5 urrX	9p		79 - 114	01/0p08 13:00	01/01/08 0p:43	1

Lab Sample ID: 280-9548x-2

Matri7: Solid

Percent Solids: 83.3

Client Sample ID: RC4-SC-125

Date Collected: 04/04/16 10:23

Date Received: 04/04/16 21:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	43		5B	0.81	mp/Kp	☆	01/04/06 07:00	01/08/06 06:06	C

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terhyen(I 5 urrX	13/	7	79 - 114	01/0p08 13:00	01/01/08 08:18	1

Lab Sample ID: 280-9548x-3

Matri7: Solid

Percent Solids: 66.6

TestAmerica DeSver

Client Sample Results

Instrument: utaStec I oSsgntiSp I or. P
 Project: ute: utaStec I XR - y aSpn Q 3

TestAmerica Job ID: 280-95184-C

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-SC-12x
 Date Collected: 04/04/16 10:30
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-4
 Matrix: Solid
 Percent Solids: 65.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	52		52	0.86	mp/Kp	☆	01/04/06 07:00	01/04/06 08:51	C
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terhyen(I § urrX	11/		/ 9 - 114				0/ 5p518 13:00	0/ 511518 06:4/	1

Client Sample ID: RC4-SC-126
 Date Collected: 04/04/16 10:42
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-5
 Matrix: Solid
 Percent Solids: 80.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	x.4		18	0.82	mp/Kp	☆	01/04/06 07:00	01/04/06 09:09	C
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terhyen(I § urrX	106		/ 9 - 114				0/ 5p518 13:00	0/ 511518 09:19	1

Client Sample ID: RC4-SC-128
 Date Collected: 04/04/16 10:50
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-x
 Matrix: Solid
 Percent Solids: 63.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	300		52	0.85	mp/Kp	☆	01/04/06 07:00	01/04/06 09:17	C
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terhyen(I § urrX	8p		/ 9 - 114				0/ 5p518 13:00	0/ 511518 09:/ 3	1

Client Sample ID: RC4-SC-129
 Date Collected: 04/04/16 11:03
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-6
 Matrix: Solid
 Percent Solids: 60.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	360	F2	52	0.81	mp/Kp	☆	01/04/06 07:00	01/04/06 06:10	C
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terhyen(I § urrX	66		/ 9 - 114				0/ 5p518 13:00	0/ 511518 08:/ 1	1

Client Sample ID: RC4-SC-130
 Date Collected: 04/04/16 11:11
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-8
 Matrix: Solid
 Percent Solids: 6x.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	33		52	0.85	mp/Kp	☆	01/04/06 07:00	01/04/06 22:09	C
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terhyen(I § urrX	93		/ 9 - 114				0/ 5p518 13:00	0/ 511518 22:19	1

Client Sample ID: RC4-SC-131
 Date Collected: 04/04/16 11:21
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-9
 Matrix: Solid
 Percent Solids: 66.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	1x0		52	0.88	mp/Kp	☆	01/04/06 07:00	01/04/06 22:17	C
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terhyen(I § urrX	10/		/ 9 - 114				0/ 5p518 13:00	0/ 511518 22:/ 3	1

TestAmerica DeSver

Client Sample Results

Instrument: utaStec I oSsgntiSp I or. P
 Project: ute: utaStec I XR - y aSpn Q 3

TestAmerica Job ID: 280-95184-C

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-SC-132

Date Collected: 04/04/16 11:33

Date Received: 04/04/16 21:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	190		500	0081	mp/Kp	☼	01/04/06 07:00	01/04/06 27:08	C

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terhyen(I § urrX	88		/ 9 - 114	0/ 50p518 13:00	0/ 511518 23:06	1

Lab Sample ID: 280-9548x-10

Matri7: Solid

Percent Solids: 80.2

Client Sample ID: RC4-SC-133

Date Collected: 04/04/16 11:45

Date Received: 04/04/16 21:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	x1		507	0090	mp/Kp	☼	01/04/06 07:00	01/04/06 27:72	C

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terhyen(I § urrX	68		/ 9 - 114	0/ 50p518 13:00	0/ 511518 23:32	1

Lab Sample ID: 280-9548x-11

Matri7: Solid

Percent Solids: 65.1

Client Sample ID: RC4-SC-134

Date Collected: 04/04/16 12:42

Date Received: 04/04/16 21:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	350		104	0066	mp/Kp	☼	01/04/06 07:00	01/04/06 27:56	C

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terhyen(I § urrX	81		/ 9 - 114	0/ 50p518 13:00	0/ 511518 23:48	1

Lab Sample ID: 280-9548x-12

Matri7: Solid

Percent Solids: 83.1

Client Sample ID: RC4-SC-135

Date Collected: 04/04/16 12:3x

Date Received: 04/04/16 21:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	22		104	0068	mp/Kp	☼	01/04/06 07:00	01/02/06 00:00	C

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terhyen(I § urrX	112		/ 9 - 114	0/ 50p518 13:00	0/ 512518 01:10	1

Lab Sample ID: 280-9548x-13

Matri7: Solid

Percent Solids: 80.5

Client Sample ID: RC4-SC-13x

Date Collected: 04/04/16 12:30

Date Received: 04/04/16 21:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	14		108	0080	mp/Kp	☼	01/04/06 07:00	01/02/06 00:75	C

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terhyen(I § urrX	60		/ 9 - 114	0/ 50p518 13:00	0/ 512518 01:34	1

Lab Sample ID: 280-9548x-14

Matri7: Solid

Percent Solids: 83.0

Client Sample ID: RC4-SC-DUP8

Date Collected: 04/04/16 11:00

Date Received: 04/04/16 21:05

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	460		400	000	mp/Kp	☼	01/04/06 07:00	01/02/06 02:00	C

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terhyen(I § urrX	62		/ 9 - 114	0/ 50p518 13:00	0/ 512518 02:00	1

Lab Sample ID: 280-9548x-15

Matri7: Solid

Percent Solids: x2.5

TestAmerica DeSver

Client Sample Results

Instrument: utaStec | oSsgntiSp | or. P
 Project: White: utaStec | XR - y aSpn Q 3

TestAmerica Job ID: 280-95184-C

General Chemistry

Client Sample ID: RC4-SC-123
 Date Collected: 04/04/16 10:04
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-1
 Matrix: Solid
 Percent Solids: 6x.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23.2		0.0	0.0	%			01/05/06 08:08	C
Percent Solids	6x.8		0.0	0.0	%			01/05/06 08:08	C

Client Sample ID: RC4-SC-124
 Date Collected: 04/04/16 10:15
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-2
 Matrix: Solid
 Percent Solids: 83.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	1x.6		0.0	0.0	%			01/05/06 08:08	C
Percent Solids	83.3		0.0	0.0	%			01/05/06 08:08	C

Client Sample ID: RC4-SC-125
 Date Collected: 04/04/16 10:23
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-3
 Matrix: Solid
 Percent Solids: 66.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22.3		0.0	0.0	%			01/05/06 08:08	C
Percent Solids	66.6		0.0	0.0	%			01/05/06 08:08	C

Client Sample ID: RC4-SC-12x
 Date Collected: 04/04/16 10:30
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-4
 Matrix: Solid
 Percent Solids: 65.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24.1		0.0	0.0	%			01/05/06 08:08	C
Percent Solids	65.9		0.0	0.0	%			01/05/06 08:08	C

Client Sample ID: RC4-SC-126
 Date Collected: 04/04/16 10:42
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-5
 Matrix: Solid
 Percent Solids: 80.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.9		0.0	0.0	%			01/05/06 08:08	C
Percent Solids	80.1		0.0	0.0	%			01/05/06 08:08	C

Client Sample ID: RC4-SC-128
 Date Collected: 04/04/16 10:50
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-x
 Matrix: Solid
 Percent Solids: 63.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	2x.1		0.0	0.0	%			01/05/06 08:08	C
Percent Solids	63.9		0.0	0.0	%			01/05/06 08:08	C

Client Sample ID: RC4-SC-129
 Date Collected: 04/04/16 11:03
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-6
 Matrix: Solid
 Percent Solids: 60.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	29.8		0.0	0.0	%			01/05/06 08:08	C
Percent Solids	60.2		0.0	0.0	%			01/05/06 08:08	C

Client Sample ID: RC4-SC-130
 Date Collected: 04/04/16 11:11
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-8
 Matrix: Solid
 Percent Solids: 6x.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23.6		0.0	0.0	%			01/05/06 08:08	C
Percent Solids	6x.3		0.0	0.0	%			01/05/06 08:08	C

TestAmerica DeSver

Client Sample Results

Instrument: uStec I oSgntiSp I or. P
 Project: uStec I XR - y aSpn Q 3

TestAmerica Job ID: 280-95184-C

General Chemistry

Client Sample ID: RC4-SC-131
 Date Collected: 04/04/16 11:21
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-9
 Matrix: Solid
 Percent Solids: 66.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22.6		0.0	0.0	%			01/05/06 08:08	C
Percent Solids	66.3		0.0	0.0	%			01/05/06 08:08	C

Client Sample ID: RC4-SC-132
 Date Collected: 04/04/16 11:33
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-10
 Matrix: Solid
 Percent Solids: 80.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.8		0.0	0.0	%			01/05/06 08:08	C
Percent Solids	80.2		0.0	0.0	%			01/05/06 08:08	C

Client Sample ID: RC4-SC-133
 Date Collected: 04/04/16 11:45
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-11
 Matrix: Solid
 Percent Solids: 65.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24.9		0.0	0.0	%			01/05/06 08:08	C
Percent Solids	65.1		0.0	0.0	%			01/05/06 08:08	C

Client Sample ID: RC4-SC-134
 Date Collected: 04/04/16 12:42
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-12
 Matrix: Solid
 Percent Solids: 83.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.9		0.0	0.0	%			01/05/06 08:08	C
Percent Solids	83.1		0.0	0.0	%			01/05/06 08:08	C

Client Sample ID: RC4-SC-135
 Date Collected: 04/04/16 12:30
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-13
 Matrix: Solid
 Percent Solids: 80.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.5		0.0	0.0	%			01/05/06 08:08	C
Percent Solids	80.5		0.0	0.0	%			01/05/06 08:08	C

Client Sample ID: RC4-SC-13x
 Date Collected: 04/04/16 12:30
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-14
 Matrix: Solid
 Percent Solids: 83.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.0		0.0	0.0	%			01/05/06 08:08	C
Percent Solids	83.0		0.0	0.0	%			01/05/06 08:08	C

Client Sample ID: RC4-SC-DUP8
 Date Collected: 04/04/16 11:00
 Date Received: 04/04/16 21:05

Lab Sample ID: 280-9548x-15
 Matrix: Solid
 Percent Solids: x2.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	36.5		0.0	0.0	%			01/05/06 08:08	C
Percent Solids	x2.5		0.0	0.0	%			01/05/06 08:08	C

TestAmerica DeSver

Surrogate Summary

Seut: g taute n ousp\$u. n orPj
/ roVctXite: g taute n Ry - , au. e\$In 4

TestAmerica Job ID: 280-9538C-I

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	TFT1 (77-123)
280-9538C-I	, n 3-gn-I 26	75 y
280-9538C-2	, n 3-gn-I 23	73 y
280-9538C-6	, n 3-gn-I 25	75 y
280-9538C-3	, n 3-gn-I 2C	96
280-9538C-5	, n 3-gn-I 27	73 y
280-9538C-C	, n 3-gn-I 28	105
280-9538C-7	, n 3-gn-I 29	106
280-9538C-7 Mg	, n 3-gn-I 29	108
280-9538C-7 MgD	, n 3-gn-I 29	169 y
280-9538C-8	, n 3-gn-I 60	72 y
280-9538C-9	, n 3-gn-I 61	77 y
280-9538C-I 0	, n 3-gn-I 62	77 y
280-9538C-I 1	, n 3-gn-I 66	59 y
280-9538C-I 2	, n 3-gn-I 63	77 y
280-9538C-I 6	, n 3-gn-I 65	77 y
280-9538C-I 3	, n 3-gn-I 6C	72 y
280-9538C-I 5	, n 3-gn-DU/ 8	122
Ln g 280-6C928C2-A	Lab n outroSgamP\$	93
MB 280-6C928CX-A	Method B\$uk	99

Surrogate Legend

TFT = a a a-Trif\$oroto\$eue

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	OTPH1 (49-115)
280-9538C-I	, n 3-gn-I 26	116
280-9538C-2	, n 3-gn-I 23	9C
280-9538C-6	, n 3-gn-I 25	163 y
280-9538C-3	, n 3-gn-I 2C	113
280-9538C-5	, n 3-gn-I 27	108
280-9538C-C	, n 3-gn-I 28	7C
280-9538C-7	, n 3-gn-I 29	88
280-9538C-7 Mg	, n 3-gn-I 29	92
280-9538C-7 MgD	, n 3-gn-I 29	83
280-9538C-8	, n 3-gn-I 60	96
280-9538C-9	, n 3-gn-I 61	103
280-9538C-I 0	, n 3-gn-I 62	77
280-9538C-I 1	, n 3-gn-I 66	87
280-9538C-I 2	, n 3-gn-I 63	71
280-9538C-I 6	, n 3-gn-I 65	112
280-9538C-I 3	, n 3-gn-I 6C	80
280-9538C-I 5	, n 3-gn-DU/ 8	82
Ln g 280-6C82992-A	Lab n outroSgamP\$	126 y
MB 280-6C8299X-A	Method B\$uk	120 y

Surrogate Legend

TestAmerica Deuver

Surrogate Summary

TestAmerica Job ID: 280-9538C-I

Seut: g taute n ousp\$u. n orPj
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4 T/ H = o-TerPheuO(gpr)

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- 14
- 15

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95486-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Lab Sample ID: MB 280-364286/1-A

Matrix: Solid

Analysis Batch: 364637

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 364286

Analyte	MB Result	MB Qualifier	RL	MDL	z nit	D	Prepared	Analy9ed	Dil Fac
GRO (C6-C10)	ND		1.2	0.33	mg/Kg		04/13/17 13:05	04/17/17 23:14	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	88		44 - 712				30/72/745/2 3:	30/74/745/2 70	7

Lab Sample ID: LCS 280-364286/2-A

Matrix: Solid

Analysis Batch: 364637

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 364286

Analyte	Spike Added	LCS Result	LCS Qualifier	z nit	D	U Rec	Limits		
GRO (C6-C10)	5.50	7.07		mg/Kg		129	85 - 153		
Surrogate	%Recovery	LCS Qualifier	Limits						
a,a,a-Trifluorotoluene	80		44 - 712						

Lab Sample ID: 280-45786-. MS

Matrix: Solid

Analysis Batch: 364637

Client Sample ID: RC7-SC-124

Prep Type: Total/NA

Prep Batch: 364286

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	z nit	D	U Rec	Limits		
GRO (C6-C10)	60	F2	7.46	62.8	4	mg/Kg	✱	43	85 - 153		
Surrogate	%Recovery	MS Qualifier	Limits								
a,a,a-Trifluorotoluene	736		44 - 712								

Lab Sample ID: 280-45786-. MSD

Matrix: Solid

Analysis Batch: 364637

Client Sample ID: RC7-SC-124

Prep Type: Total/NA

Prep Batch: 364286

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	z nit	D	U Rec	Limits	RPD	Limit
GRO (C6-C10)	60	F2	7.76	104	E 4 F2	mg/Kg	✱	574	85 - 153	50	30
Surrogate	%Recovery	MSD Qualifier	Limits								
a,a,a-Trifluorotoluene	728	9	44 - 712								

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 280-368244/1-A

Matrix: Solid

Analysis Batch: 368413

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 368244

Analyte	MB Result	MB Qualifier	RL	MDL	z nit	D	Prepared	Analy9ed	Dil Fac
DRO (C10-C28)	ND		4.0	0.68	mg/Kg		04/06/17 13:00	04/11/17 20:16	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(Surr)	713	9	08 - 77:				30/3X/745/2 33	30/77/745/3 7X	7

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95486-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: LCS 280-368244/2-A

Matrix: Solid

Analysis Batch: 368413

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 368244

U Rec%

Analyte	Spike Added	LCS Result	LCS Qualifier	z nit	D	U Rec	Limits
DRO (C10-C28)	66.7	71.2		mg/Kg		107	53 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl(Surr)	712	9	08 - 77:

Lab Sample ID: 280-45786-. MS

Matrix: Solid

Analysis Batch: 368632

Client Sample ID: RC7-SC-124

Prep Type: Total/NA

Prep Batch: 368244

U Rec%

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	z nit	D	U Rec	Limits
DRO (C10-C28)	370	F2	92.2	361	4	mg/Kg	✱	-11	56 - 115

Surrogate	MS %Recovery	MS Qualifier	Limits
o-Terphenyl(Surr)	81		08 - 77:

Lab Sample ID: 280-45786-. MSD

Matrix: Solid

Analysis Batch: 368632

Client Sample ID: RC7-SC-124

Prep Type: Total/NA

Prep Batch: 368244

U Rec%

RPD

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	z nit	D	U Rec	Limits	RPD	Limit
DRO (C10-C28)	370	F2	90.7	506	4 F2	mg/Kg	✱	148	56 - 115	33	23

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o-Terphenyl(Surr)	60		08 - 77:

Method: Moisture - Percent Moisture

Lab Sample ID: 280-45786-1 Dz

Matrix: Solid

Analysis Batch: 368104

Client Sample ID: RC7-SC-123

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Dz Result	Dz Qualifier	z nit	D	RPD	Limit
Percent Moisture	23.2		25.1		%		8	20
Percent Solids	76.8		74.9		%		3	20

TestAmerica Denver

QC Association Summary

Line: 1 of 25
 Job: 280-95781-C

TestAmerica Job ID: 280-95781-C

GC VOA

Prep Batch: 369286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95781-C	7-11 -C24	Total	uri3	5040A	
280-95781-2	7-11 -C27	Total	uri3	5040A	
280-95781-4	7-11 -C25	Total	uri3	5040A	
280-95781-7	7-11 -C21	Total	uri3	5040A	
280-95781-5	7-11 -C26	Total	uri3	5040A	
280-95781-1	7-11 -C28	Total	uri3	5040A	
280-95781-6	7-11 -C29	Total	uri3	5040A	
280-95781-8	7-11 -C40	Total	uri3	5040A	
280-95781-9	7-11 -C4C	Total	uri3	5040A	
280-95781-C0	7-11 -C42	Total	uri3	5040A	
280-95781-CC	7-11 -C44	Total	uri3	5040A	
280-95781-C2	7-11 -C47	Total	uri3	5040A	
280-95781-C4	7-11 -C45	Total	uri3	5040A	
280-95781-C7	7-11 -C41	Total	uri3	5040A	
280-95781-C5	7-11 -DMJ 8	Total	uri3	5040A	
Bh 280-419281V-A	Betko3 hrSL	Total	uri3	5040A	
vi u 280-419281V-A	vab l oStronuam. re	Total	uri3	5040A	
280-95781-6 Bu	7-11 -C29	Total	uri3	5040A	
280-95781-6 BuD	7-11 -C29	Total	uri3	5040A	

Analysis Batch: 369634

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95781-C	7-11 -C24	Total	uri3	80C5I	419281
280-95781-2	7-11 -C27	Total	uri3	80C5I	419281
280-95781-4	7-11 -C25	Total	uri3	80C5I	419281
280-95781-7	7-11 -C21	Total	uri3	80C5I	419281
280-95781-5	7-11 -C26	Total	uri3	80C5I	419281
280-95781-1	7-11 -C28	Total	uri3	80C5I	419281
280-95781-6	7-11 -C29	Total	uri3	80C5I	419281
280-95781-8	7-11 -C40	Total	uri3	80C5I	419281
280-95781-9	7-11 -C4C	Total	uri3	80C5I	419281
280-95781-C0	7-11 -C42	Total	uri3	80C5I	419281
280-95781-CC	7-11 -C44	Total	uri3	80C5I	419281
280-95781-C2	7-11 -C47	Total	uri3	80C5I	419281
280-95781-C4	7-11 -C45	Total	uri3	80C5I	419281
280-95781-C7	7-11 -C41	Total	uri3	80C5I	419281
280-95781-C5	7-11 -DMJ 8	Total	uri3	80C5I	419281
Bh 280-419281V-A	Betko3 hrSL	Total	uri3	80C5I	419281
vi u 280-419281V-A	vab l oStronuam. re	Total	uri3	80C5I	419281
280-95781-6 Bu	7-11 -C29	Total	uri3	80C5I	419281
280-95781-6 BuD	7-11 -C29	Total	uri3	80C5I	419281

GC Semi VOA

Prep Batch: 368299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95781-C	7-11 -C24	Total	uri3	4571	
280-95781-2	7-11 -C27	Total	uri3	4571	
280-95781-4	7-11 -C25	Total	uri3	4571	
280-95781-7	7-11 -C21	Total	uri3	4571	

TestAmerica DeSLer

QC Association Summary

Project: 280-95781-C
 Site: 280-95781-C
 Date: 4/19/2017

TestAmerica Job ID: 280-95781-C

GC Semi VOA (Continued)

Prep Batch: 368299 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95781-5	7-UL -C26	TotalNA	uon3	4571	
280-95781-1	7-UL -C28	TotalNA	uon3	4571	
280-95781-6	7-UL -C29	TotalNA	uon3	4571	
280-95781-8	7-UL -C40	TotalNA	uon3	4571	
280-95781-9	7-UL -C4C	TotalNA	uon3	4571	
280-95781-C0	7-UL -C42	TotalNA	uon3	4571	
280-95781-CC	7-UL -C44	TotalNA	uon3	4571	
280-95781-C2	7-UL -C47	TotalNA	uon3	4571	
280-95781-C4	7-UL -C45	TotalNA	uon3	4571	
280-95781-C7	7-UL -C41	TotalNA	uon3	4571	
280-95781-C5	7-UL -DMJ 8	TotalNA	uon3	4571	
B h 280-418299V-A	Betko3 hrSL	TotalNA	uon3	4571	
vl u 280-418299V-A	vab l oStronuam. re	TotalNA	uon3	4571	
280-95781-6 Bu	7-UL -C29	TotalNA	uon3	4571	
280-95781-6 BuD	7-UL -C29	TotalNA	uon3	4571	

Analysis Batch: 368632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95781-C	7-UL -C24	TotalNA	uon3	80C5I	418299
280-95781-2	7-UL -C27	TotalNA	uon3	80C5I	418299
280-95781-4	7-UL -C25	TotalNA	uon3	80C5I	418299
280-95781-7	7-UL -C21	TotalNA	uon3	80C5I	418299
280-95781-5	7-UL -C26	TotalNA	uon3	80C5I	418299
280-95781-1	7-UL -C28	TotalNA	uon3	80C5I	418299
280-95781-6	7-UL -C29	TotalNA	uon3	80C5I	418299
280-95781-6 Bu	7-UL -C29	TotalNA	uon3	80C5I	418299
280-95781-6 BuD	7-UL -C29	TotalNA	uon3	80C5I	418299

Analysis Batch: 368913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95781-8	7-UL -C40	TotalNA	uon3	80C5I	418299
280-95781-9	7-UL -C4C	TotalNA	uon3	80C5I	418299
280-95781-C0	7-UL -C42	TotalNA	uon3	80C5I	418299
280-95781-CC	7-UL -C44	TotalNA	uon3	80C5I	418299
280-95781-C2	7-UL -C47	TotalNA	uon3	80C5I	418299
280-95781-C4	7-UL -C45	TotalNA	uon3	80C5I	418299
280-95781-C7	7-UL -C41	TotalNA	uon3	80C5I	418299
280-95781-C5	7-UL -DMJ 8	TotalNA	uon3	80C5I	418299
B h 280-418299V-A	Betko3 hrSL	TotalNA	uon3	80C5I	418299
vl u 280-418299V-A	vab l oStronuam. re	TotalNA	uon3	80C5I	418299

General Chemistry

Analysis Batch: 368109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95781-C	7-UL -C24	TotalNA	uon3	B oistgre	
280-95781-2	7-UL -C27	TotalNA	uon3	B oistgre	
280-95781-4	7-UL -C25	TotalNA	uon3	B oistgre	
280-95781-7	7-UL -C21	TotalNA	uon3	B oistgre	
280-95781-5	7-UL -C26	TotalNA	uon3	B oistgre	

TestAmerica DeSLer

QC Association Summary

LineSt: utaStec I oSsgntiSp I or. P
j ro/ectWrite: utaStec I XR - y aSpn Q d

TestAmerica Job ID: 280-95781-C

General Chemistry (Continued)

Analysis Batch: 368109 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95781-1	y l 7-ul -C28	TotalNA	u ori3	Boistgre	
280-95781-6	y l 7-ul -C29	TotalNA	u ori3	Boistgre	
280-95781-8	y l 7-ul -C40	TotalNA	u ori3	Boistgre	
280-95781-9	y l 7-ul -C4C	TotalNA	u ori3	Boistgre	
280-95781-C0	y l 7-ul -C42	TotalNA	u ori3	Boistgre	
280-95781-C0C	y l 7-ul -C44	TotalNA	u ori3	Boistgre	
280-95781-C2	y l 7-ul -C47	TotalNA	u ori3	Boistgre	
280-95781-C4	y l 7-ul -C45	TotalNA	u ori3	Boistgre	
280-95781-C7	y l 7-ul -C41	TotalNA	u ori3	Boistgre	
280-95781-C5	y l 7-ul -DMj 8	TotalNA	u ori3	Boistgre	
280-95781-CDM	y l 7-ul -C24	TotalNA	u ori3	Boistgre	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95486-1

Client Sample ID: RC4-SC-582

Date Collecte/ : 947947v 59:94

Date Recei6e/ : 947947v 85:91

Lab Sample ID: 809-3140M5

x atrid: Soli/

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Analysis	Moisture		1			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-582

Date Collecte/ : 947947v 59:94

Date Recei6e/ : 947947v 85:91

Lab Sample ID: 809-3140M5

x atrid: Soli/

Percent Soli/ s: vM0

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Prep	5030A			5.17 g	5 mL	369286	04/13/17 13:05	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	369634	04/18/17 00:04	TEM	TAL DEN
Total/NA	Prep	3546			31.6 g	1 mL	368299	04/06/17 13:00	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			368632	04/11/17 06:28	TEM	TAL DEN

Client Sample ID: RC4-SC-584

Date Collecte/ : 947947v 59:51

Date Recei6e/ : 947947v 85:91

Lab Sample ID: 809-3140M8

x atrid: Soli/

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Analysis	Moisture		1			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-584

Date Collecte/ : 947947v 59:51

Date Recei6e/ : 947947v 85:91

Lab Sample ID: 809-3140M8

x atrid: Soli/

Percent Soli/ s: 02.2

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Prep	5030A			5.17 g	5 mL	369286	04/13/17 13:05	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	369634	04/18/17 00:28	TEM	TAL DEN
Total/NA	Prep	3546			31.8 g	1 mL	368299	04/06/17 13:00	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			368632	04/11/17 06:53	TEM	TAL DEN

Client Sample ID: RC4-SC-581

Date Collecte/ : 947947v 59:82

Date Recei6e/ : 947947v 85:91

Lab Sample ID: 809-3140M2

x atrid: Soli/

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Analysis	Moisture		1			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-581

Date Collecte/ : 947947v 59:82

Date Recei6e/ : 947947v 85:91

Lab Sample ID: 809-3140M2

x atrid: Soli/

Percent Soli/ s: vv.v

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Prep	5030A			5.23 g	5 mL	369286	04/13/17 13:05	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95486-1

Client Sample ID: RC4-SC-581

Lab Sample ID: 809-3140M2

Date Collecte/ : 947947v 59:82

x atrid: Soli/

Date Recei6e/ : 947947v 85:91

Percent Soli/ s: vv.v

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	369634	04/18/17 00:53	TEM	TAL DEN
Total/NA	Prep	3546			31.1 g	1 mL	368299	04/06/17 13:00	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			368632	04/11/17 07:17	TEM	TAL DEN

Client Sample ID: RC4-SC-58M

Lab Sample ID: 809-3140M4

Date Collecte/ : 947947v 59:29

x atrid: Soli/

Date Recei6e/ : 947947v 85:91

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Analysis	Moisture		1			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-58M

Lab Sample ID: 809-3140M4

Date Collecte/ : 947947v 59:29

x atrid: Soli/

Date Recei6e/ : 947947v 85:91

Percent Soli/ s: v1.3

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Prep	5030A			5.14 g	5 mL	369286	04/13/17 13:05	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	369634	04/18/17 01:18	TEM	TAL DEN
Total/NA	Prep	3546			30.7 g	1 mL	368299	04/06/17 13:00	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			368632	04/11/17 08:54	TEM	TAL DEN

Client Sample ID: RC4-SC-58v

Lab Sample ID: 809-3140M1

Date Collecte/ : 947947v 59:48

x atrid: Soli/

Date Recei6e/ : 947947v 85:91

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Analysis	Moisture		1			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-58v

Lab Sample ID: 809-3140M1

Date Collecte/ : 947947v 59:48

x atrid: Soli/

Date Recei6e/ : 947947v 85:91

Percent Soli/ s: 09.5

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Prep	5030A			5.16 g	5 mL	369286	04/13/17 13:05	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	369634	04/18/17 01:43	TEM	TAL DEN
Total/NA	Prep	3546			30.9 g	1 mL	368299	04/06/17 13:00	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			368632	04/11/17 09:19	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95486-1

Client Sample ID: RC4-SC-580

Lab Sample ID: 809-3140MM

Date Collecte/ : 947947v 59:19

x atrid: Soli/

Date Recei6e/ : 947947v 85:91

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Analysis	Moisture		1			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-580

Lab Sample ID: 809-3140MM

Date Collecte/ : 947947v 59:19

x atrid: Soli/

Date Recei6e/ : 947947v 85:91

Percent Soli/ s: v2.3

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Prep	5030A			5.26 g	5 mL	369286	04/13/17 13:05	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	369634	04/18/17 02:07	TEM	TAL DEN
Total/NA	Prep	3546			32.4 g	1 mL	368299	04/06/17 13:00	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			368632	04/11/17 09:43	TEM	TAL DEN

Client Sample ID: RC4-SC-583

Lab Sample ID: 809-3140Mv

Date Collecte/ : 947947v 55:92

x atrid: Soli/

Date Recei6e/ : 947947v 85:91

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Analysis	Moisture		1			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-583

Lab Sample ID: 809-3140Mv

Date Collecte/ : 947947v 55:92

x atrid: Soli/

Date Recei6e/ : 947947v 85:91

Percent Soli/ s: v9.8

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Prep	5030A			5.17 g	5 mL	369286	04/13/17 13:05	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	369634	04/18/17 02:32	TEM	TAL DEN
Total/NA	Prep	3546			30.9 g	1 mL	368299	04/06/17 13:00	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			368632	04/11/17 07:41	TEM	TAL DEN

Client Sample ID: RC4-SC-529

Lab Sample ID: 809-3140M0

Date Collecte/ : 947947v 55:55

x atrid: Soli/

Date Recei6e/ : 947947v 85:91

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Analysis	Moisture		1			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-529

Lab Sample ID: 809-3140M0

Date Collecte/ : 947947v 55:55

x atrid: Soli/

Date Recei6e/ : 947947v 85:91

Percent Soli/ s: vM2

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Prep	5030A			5.05 g	5 mL	369286	04/13/17 13:05	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95486-1

Client Sample ID: RC4-SC-529

Lab Sample ID: 809-3140M0

Date Collecte/ : 947945v 55:55

x atrid: Soli/

Date Recei6e/ : 947945v 85:91

Percent Soli/ s: vM2

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	369634	04/18/17 03:46	TEM	TAL DEN
Total/NA	Prep	3546			31.2 g	1 mL	368299	04/06/17 13:00	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			368913	04/11/17 22:19	TEM	TAL DEN

Client Sample ID: RC4-SC-525

Lab Sample ID: 809-3140M3

Date Collecte/ : 947945v 55:85

x atrid: Soli/

Date Recei6e/ : 947945v 85:91

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Analysis	Moisture		1			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-525

Lab Sample ID: 809-3140M3

Date Collecte/ : 947945v 55:85

x atrid: Soli/

Date Recei6e/ : 947945v 85:91

Percent Soli/ s: vv.2

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Prep	5030A			5.14 g	5 mL	369286	04/13/17 13:05	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	369634	04/18/17 04:10	TEM	TAL DEN
Total/NA	Prep	3546			30.0 g	1 mL	368299	04/06/17 13:00	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			368913	04/11/17 22:43	TEM	TAL DEN

Client Sample ID: RC4-SC-528

Lab Sample ID: 809-3140M59

Date Collecte/ : 947945v 55:22

x atrid: Soli/

Date Recei6e/ : 947945v 85:91

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Analysis	Moisture		1			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-528

Lab Sample ID: 809-3140M59

Date Collecte/ : 947945v 55:22

x atrid: Soli/

Date Recei6e/ : 947945v 85:91

Percent Soli/ s: 09.8

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Prep	5030A			5.28 g	5 mL	369286	04/13/17 13:05	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	369634	04/18/17 04:35	TEM	TAL DEN
Total/NA	Prep	3546			30.2 g	1 mL	368299	04/06/17 13:00	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			368913	04/11/17 23:08	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95486-1

Client Sample ID: RC4-SC-522

Lab Sample ID: 809-3140M55

Date Collecte/ : 947945v 55:41

x atrid: Soli/

Date Recei6e/ : 947945v 85:91

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Analysis	Moisture		1			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-522

Lab Sample ID: 809-3140M55

Date Collecte/ : 947945v 55:41

x atrid: Soli/

Date Recei6e/ : 947945v 85:91

Percent Soli/ s: v1.5

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Prep	5030A			5.21 g	5 mL	369286	04/13/17 13:05	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	369634	04/18/17 05:25	TEM	TAL DEN
Total/NA	Prep	3546			30.2 g	1 mL	368299	04/06/17 13:00	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			368913	04/11/17 23:32	TEM	TAL DEN

Client Sample ID: RC4-SC-524

Lab Sample ID: 809-3140M58

Date Collecte/ : 947945v 58:48

x atrid: Soli/

Date Recei6e/ : 947945v 85:91

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Analysis	Moisture		1			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-524

Lab Sample ID: 809-3140M58

Date Collecte/ : 947945v 58:48

x atrid: Soli/

Date Recei6e/ : 947945v 85:91

Percent Soli/ s: 02.5

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Prep	5030A			5.15 g	5 mL	369286	04/13/17 13:05	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	369634	04/18/17 05:49	TEM	TAL DEN
Total/NA	Prep	3546			31.6 g	1 mL	368299	04/06/17 13:00	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			368913	04/11/17 23:57	TEM	TAL DEN

Client Sample ID: RC4-SC-521

Lab Sample ID: 809-3140M52

Date Collecte/ : 947945v 58:2M

x atrid: Soli/

Date Recei6e/ : 947945v 85:91

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Analysis	Moisture		1			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-521

Lab Sample ID: 809-3140M52

Date Collecte/ : 947945v 58:2M

x atrid: Soli/

Date Recei6e/ : 947945v 85:91

Percent Soli/ s: 09.1

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Prep	5030A			5.15 g	5 mL	369286	04/13/17 13:05	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95486-1

Client Sample ID: RC4-SC-521

Lab Sample ID: 809-3140M52

Date Collecte/ : 947947v 58:2M

x atrid: Soli/

Date Recei6e/ : 947947v 85:91

Percent Soli/ s: 09.1

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	369634	04/18/17 06:14	TEM	TAL DEN
Total/NA	Prep	3546			32.5 g	1 mL	368299	04/06/17 13:00	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			368913	04/12/17 01:10	TEM	TAL DEN

Client Sample ID: RC4-SC-52M

Lab Sample ID: 809-3140M54

Date Collecte/ : 947947v 58:29

x atrid: Soli/

Date Recei6e/ : 947947v 85:91

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Analysis	Moisture		1			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-52M

Lab Sample ID: 809-3140M54

Date Collecte/ : 947947v 58:29

x atrid: Soli/

Date Recei6e/ : 947947v 85:91

Percent Soli/ s: 02.9

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Prep	5030A			5.18 g	5 mL	369286	04/13/17 13:05	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	369634	04/18/17 06:39	TEM	TAL DEN
Total/NA	Prep	3546			30.2 g	1 mL	368299	04/06/17 13:00	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			368913	04/12/17 01:35	TEM	TAL DEN

Client Sample ID: RC4-SC-DUP0

Lab Sample ID: 809-3140M51

Date Collecte/ : 947947v 55:99

x atrid: Soli/

Date Recei6e/ : 947947v 85:91

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Analysis	Moisture		1			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-DUP0

Lab Sample ID: 809-3140M51

Date Collecte/ : 947947v 55:99

x atrid: Soli/

Date Recei6e/ : 947947v 85:91

Percent Soli/ s: M8.1

Prep Type	Batch Type	Batch x etho/	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepare/ or Analyze/	Analyst	Lab
Total/NA	Prep	5030A			5.04 g	5 mL	369286	04/13/17 13:05	TEM	TAL DEN
Total/NA	Analysis	8015C		2	0.1 mL	5 mL	369634	04/18/17 07:04	TEM	TAL DEN
Total/NA	Prep	3546			32.1 g	1 mL	368299	04/06/17 13:00	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			368913	04/12/17 02:00	TEM	TAL DEN

Laboratory References:

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

TestAmerica Denver

Accreditation/Certification Summary

Client: Stantec Consulting Corp.

TestAmerica Job ID: 280-94681-P

Site: Stantec CXR - y angel, OCd

Laboratory: TestAmerica Denver

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

Authority	Program	EPA Region	Identification Number	Expiration Date
A27A	DoD 37A		290E.0P	P0-5P-PE
A27A	ISd V3C PE024		290E.0P	P0-5P-PE
Alabama	State program	6	60E50	09-50-P2 *
Alaska (UST)	State program	P0	UST-50	06-04-P8
Arizona	State program	9	AZ0EP5	P2-20-PE
Arkansas D3Q	State program	1	88-018E	01-0P-PE
California	State program	9	24P5	0P-08-P8 *
Connecticut	State program	P	j H-0181	09-50-P8
Florida	L 37A	6	38E11E	01-50-PE
Georgia	State program	6	L VA	0P-08-P8
Illinois	L 37A	4	2000PE	06-50-P8
Iowa	State program	E	5E0	P2-0P-P8 *
Kansas	L 37A	E	3-P0P11	06-50-PE *
Louisiana	L 37A	1	02091	01-50-PE
Maine	State program	P	Cd 0002	05-05-P9
Minnesota	L 37A	4	8-999-604	P2-5P-PE *
Nebraska	State program	9	Cd 0021	0E-5P-PE
New Hampshire	L 37A	P	2045P0	06-28-PE
New Jersey	L 37A	2	Cd 006	01-50-PE
New York	L 37A	2	PP916	06-0P-P8
North Carolina (WW&SW)	State program	6	548	P2-5P-PE
North Dakota	State program	8	y -056	0P-09-P8
Ohio	State program	1	81P6	08-5P-PE
Oregon	L 37A	P0	6024	0P-08-P8
Pennsylvania	L 37A	5	18-00116	0E-5P-PE
South Carolina	State program	6	E200200P	0P-09-PE *
Texas	L 37A	1	TP06E06P85-P1-P2	09-50-PE
USDA	Federal		j 550-P1-0059E	P2-P4-P9
Utah	L 37A	8	Cd 00021	0E-5P-PE
Virginia	L 37A	5	610252	01-P6-PE
Washington	State program	P0	C485	08-02-PE
West Virginia D3j	State program	5	546	PP-50-PE
Wisconsin	State program	4	9991P4650	08-5P-PE
Wyoming (UST)	A27A	8	290E.0P	P0-5P-PE

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

TestAmerica Denver

Chain of Custody Record

140338

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: <u>Bethany Lucette</u>		Site Contact: <u>Bethany Lucette</u>		Date: <u>4/4/17</u>		COC No: <u>1</u> of <u>5</u> COCs	
Company Name: <u>Starter</u>		Tel/Fax: <u>303 250-4118</u>		Lab Contact: <u>Samie Wie</u>		Carrier: <u>Courier</u>		Sampler:	
Address: <u>2000 South Colorado Blvd., #2-300</u>		City/State/Zip: <u>Denver CO 80222</u>		Analysis Turnaround Time				For Lab Use Only:	
Phone: <u>303-758-4058</u>		City/State/Zip: <u>Denver CO 80222</u>		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS				Walk-in Client:	
Fax: <u>303-758-4828</u>		City/State/Zip: <u>Denver CO 80222</u>		TAT if different from Below				Lab Sampling:	
Project Name: <u>CPK-Rangely - C-4</u>		City/State/Zip: <u>Denver CO 80222</u>		<input checked="" type="checkbox"/> 2 weeks				Job / SDG No.:	
Site: <u>CPK-Rangely</u>		City/State/Zip: <u>Denver CO 80222</u>		<input type="checkbox"/> 1 week					
PO # <u>2037201021</u>		City/State/Zip: <u>Denver CO 80222</u>		<input type="checkbox"/> 2 days					
		City/State/Zip: <u>Denver CO 80222</u>		<input type="checkbox"/> 1 day					
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Sample Specific Notes:	
RC4-SC-123	4/4/17	1004	G	Soil	2	N	N	X	
RC4-SC-124		1015			2	N	N	X	
RC4-SC-125		1023			2	N	N	X	
RC4-SC-126		1030			2	N	N	X	
RC4-SC-127		1042			2	N	N	X	
RC4-SC-128		1050			2	N	N	X	
RC4-SC-129		1103			6	N	N	X	
RC4-SC-130		1111			2	N	N	X	
RC4-SC-131		1121			2	N	N	X	
RC4-SC-132		1133			2	N	N	X	
RC4-SC-133		1145			2	N	N	X	
RC4-SC-134		1242			2	N	N	X	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample. <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown									
Special Instructions/QC Requirements & Comments:									
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: <u>4.1</u> Corr'd: <u>4.1</u>		Therm ID No.: <u>7</u>			
Relinquished by:		Company:		Received by: <u>Lead PCA</u>		Company: <u>TAD</u>		Date/Time: <u>4-4-17 2105</u>	
Relinquished by:		Company:		Received by:		Company:		Date/Time:	
Relinquished by:		Company:		Received in Laboratory by:		Company:		Date/Time:	

4.1 IR # 7 0.0 RP 4-4-17

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact Company Name: <u>Stantec</u> Address: <u>2000 South Colorado Blvd., #2-300</u> City/State/Zip: <u>Denver, CO 80222</u> Phone: <u>303-758-4058</u> Fax: <u>303-758-4028</u> Project Name: <u>CPL-Rangel - C-4</u> Site: <u>CPL-Rangel</u> PO # <u>203720162</u>		Project Manager: Bethany Lucante Tel/Fax: <u>303-250-4718</u> Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Site Contact: Bethany Lucante Date: <u>4/4/17</u> Lab Contact: <u>Jan. Yick</u> Carrier: <u>Covis</u> CQC No: <u>2</u> of <u>2</u> CQCs Sampler: For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.: Sample Specific Notes:	
Sample Identification <u>RC4-SC-135</u> <u>RC4-SC-136</u> <u>RC4-SC-DUPB</u>		Sample Date: <u>4/4/17</u> Time: <u>1236</u> Type: <u>G</u> Matrix: <u>Sol</u> # of Cont.: <u>2</u>		Filtered Sample (Y/N) <u>Y</u> <u>N</u> <u>N</u> Perform MS/MSD (Y/N) <u>Y</u> <u>N</u> <u>N</u>	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other _____ Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months			
Special Instructions/QC Requirements & Comments:					
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Relinquished by: <u>Mike Stathamer / JTA</u> Relinquished by: _____ Relinquished by: _____		Company: <u>Stantec</u> Company: _____ Company: _____		Date/Time: <u>1345/4/17</u> Date/Time: _____ Date/Time: _____	
Cooler Temp. (°C): _____ Obs'd: _____ Corr'd: _____		Therm ID No.: _____ Date/Time: <u>4-4-17</u> Date/Time: _____ Date/Time: _____			

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-95184-/

Login Number: 95486

List Source: TestAmerica Denver

List Number: 1

Creator: Pottruff, Reed W

Question	Answer	Comment
Is the sample receipted?	N/A	
Is the cooler is custome self is intact.	, rue	
Sample custome self are intact.	, rue	
Is the cooler or samples do not appear to have been compromised or tampered with.	, rue	
Samples were received on ice.	, rue	
Cooler temperature is acceptable.	, rue	
Cooler temperature is recorded.	, rue	
CF C is present.	, rue	
CF C is level out in in any legible.	, rue	
CF C is level out with all pertinent information.	I also	dear to Job Narrative or details.
Is the label sampler name present on CF CH	, rue	
Are there are no discrepancies between the containers received and the CF C.	, rue	
Samples are received within (including time) testing tests immediately (SP)	, rue	
Sample containers have legible labels.	, rue	
Containers are not broken or leaking.	, rue	
Sample collection vials are provided.	, rue	
Appropriate sample containers are used.	, rue	
Sample bottles are completely level.	, rue	
Sample Preservation required.	N/A	
Is there is sufficient volume for all required analyses including environmental	, rue	
Containers remaining zero headspace and no headspace or bubble is 4mm x 1/4" P.	N/A	
Duplicate samples are not present.	, rue	
Samples do not require splitting or compositing.	, rue	
Desired Chlorine Check.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver

4955 Yarrow Street

Arvada, CO 80002

Tel: (303)736-0100

TestAmerica Job ID: 280-95794-1

Client Project/Site: Chevron Rangely, CO

For:

Stantec Consulting Corp.

2000 South Colorado Blvd

Suite 2-300

Denver, Colorado 80222

Attn: Ms. Bethany Lucente



Authorized for release by:

4/21/2017 12:18:17 PM

Jamie Ide, Project Manager I

(303)736-0126

jamie.ide@testamericainc.com

LINKS

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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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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO

TestAmerica Job ID: 280-95794-1

Qualifiers

GC SmV

Qualifier	Qualifier Description
X	Surrogate is outside control limits

GC cep i SmV

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance 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

Glossary

Abbreviation	These are the only abbreviations that 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, 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)

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO

TestAmerica Job ID: 280-95794-1

Job ID: 280-95794-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Stantec Consulting Corp.

Project: Chevron Rangely, CO

Report Number: 280-95794-1

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 on 4/12/2017 8:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 2.0° C, 3.1° C and 4.1° C.

The collection date for each sample was logged per the revised chain of custody submitted by the client via email on 4/12/2017. The original and revised chains of custody are included in the final report.

GASOLINE RANGE ORGANICS (GRO)

a,a,a-Trifluorotoluene failed the surrogate recovery criteria low for RC4-SC-137 (280-95794-1), RC4-SC-146 (280-95794-10), RC4-SC-147 (280-95794-11), RC4-SC-141 (280-95794-5), RC4-SC-142 (280-95794-6), RC4-SC-144 (280-95794-8), RC4-SC-145 (280-95794-9), RC4-SC-146MS (280-95794-10MS) and RC4-SC-146MSD (280-95794-10MSD). Matrix is highly suspected; however, the data has been reported without re-extraction to provide data to the client.

a,a,a-Trifluorotoluene failed the surrogate recovery criteria low for RC4-SC-138 (280-95794-2), RC4-SC-139 (280-95794-3), RC4-SC-140 (280-95794-4). Evidence of matrix interference is present; therefore, corrective action was not performed.

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

DIESEL RANGE ORGANICS

The following samples could not be thoroughly homogenized before sub-sampling was performed due to sample matrix: RC4-SC-147 (280-95794-11) and (280-95794-A-1 MS). The sample was a clay.

The initial aliquot and surrogate aliquot used for extraction of the following sample was split between two extraction vessels with the routine volume of solvent added to each vessel: RC4-SC-147 (280-95794-11) and (280-95794-A-1 MS). After the extraction, the extracts from both vessels were combined and concentrated. This was done due to sample matrix was a clay. The sample was a clay.

o-Terphenyl failed the surrogate recovery criteria high for LCS 280-369208/2-A. The associated spike recoveries and field sample surrogate recoveries were in control; therefore, corrective action was not performed.

DRO (C10-C28) failed the recovery criteria low for the MS of sample RC4-SC-137 (280-95794-1). The associated LCS was in control; therefore, corrective action was not performed.

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

PERCENT SOLIDS

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

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO

TestAmerica Job ID: 280-95794-1

Client Sample ID: RC4-SC-30L

ba2 Sample ID: 895-71L74-3

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil Fac	D	Method	Prep Type
DRO (C10-C28)	13	F1	4.7	0.80	mg/Kg	1	☒	8015C	Total/NA

Client Sample ID: RC4-SC-309

ba2 Sample ID: 895-71L74-8

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil Fac	D	Method	Prep Type
DRO (C10-C28)	11		5.1	0.87	mg/Kg	1	☒	8015C	Total/NA

Client Sample ID: RC4-SC-307

ba2 Sample ID: 895-71L74-0

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	2.3		1.8	0.49	mg/Kg	1	☒	8015C	Total/NA
DRO (C10-C28)	5.8		5.6	0.94	mg/Kg	1	☒	8015C	Total/NA

Client Sample ID: RC4-SC-345

ba2 Sample ID: 895-71L74-4

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	3.3		1.8	0.48	mg/Kg	1	☒	8015C	Total/NA
DRO (C10-C28)	9.2		5.8	0.98	mg/Kg	1	☒	8015C	Total/NA

Client Sample ID: RC4-SC-343

ba2 Sample ID: 895-71L74-1

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil Fac	D	Method	Prep Type
DRO (C10-C28)	33		4.6	0.79	mg/Kg	1	☒	8015C	Total/NA

Client Sample ID: RC4-SC-348

ba2 Sample ID: 895-71L74-6

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil Fac	D	Method	Prep Type
DRO (C10-C28)	27		4.6	0.78	mg/Kg	1	☒	8015C	Total/NA

Client Sample ID: RC4-SC-340

ba2 Sample ID: 895-71L74-L

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	51		1.4	0.39	mg/Kg	1	☒	8015C	Total/NA
DRO (C10-C28)	320		4.5	0.77	mg/Kg	1	☒	8015C	Total/NA

Client Sample ID: RC4-SC-344

ba2 Sample ID: 895-71L74-9

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil Fac	D	Method	Prep Type
DRO (C10-C28)	110		4.6	0.79	mg/Kg	1	☒	8015C	Total/NA

Client Sample ID: RC4-SC-341

ba2 Sample ID: 895-71L74-7

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil Fac	D	Method	Prep Type
DRO (C10-C28)	100		4.3	0.73	mg/Kg	1	☒	8015C	Total/NA

Client Sample ID: RC4-SC-346

ba2 Sample ID: 895-71L74-35

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil Fac	D	Method	Prep Type
DRO (C10-C28)	70		4.6	0.78	mg/Kg	1	☒	8015C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO

TestAmerica Job ID: 280-95794-1

Client Sample ID: RC4-SC-34L

ba2 Sample ID: 895-71L74-33

Analyte	Result	Qualifier	Rb	MDb	Unit	Dil Fac	D	Method	Prep Type
DRO (C10-C28)	3.2	J	4.7	0.79	mg/Kg	1	☼	8015C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO

TestAmerica Job ID: 280-95794-1

Method	Method Description	Protocol	Laboratory
8015C	Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	SW846	TAL DEN
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	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: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO

TestAmerica Job ID: 280-95794-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-95794-1	RC4-SC-137	Solid	04/11/17 14:40	04/12/17 08:45
280-95794-2	RC4-SC-138	Solid	04/11/17 14:45	04/12/17 08:45
280-95794-3	RC4-SC-139	Solid	04/11/17 14:50	04/12/17 08:45
280-95794-4	RC4-SC-140	Solid	04/11/17 14:55	04/12/17 08:45
280-95794-5	RC4-SC-141	Solid	04/11/17 15:00	04/12/17 08:45
280-95794-6	RC4-SC-142	Solid	04/11/17 15:05	04/12/17 08:45
280-95794-7	RC4-SC-143	Solid	04/11/17 15:10	04/12/17 08:45
280-95794-8	RC4-SC-144	Solid	04/11/17 15:15	04/12/17 08:45
280-95794-9	RC4-SC-145	Solid	04/11/17 15:20	04/12/17 08:45
280-95794-10	RC4-SC-146	Solid	04/11/17 15:25	04/12/17 08:45
280-95794-11	RC4-SC-147	Solid	04/11/17 15:30	04/12/17 08:45

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO

TestAmerica Job ID: 280-95794-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-SC-137
Date Collected: 04/11/17 14:40
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-1
Matrix: Solid
Percent Solids: 82.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.4	0.38	mg/Kg	☼	04/18/17 16:54	04/19/17 17:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	84	7	44 - 123				0/ 5/ 5/ 4:18 6/	0/ 5/ 5/ 4:14 6/	1

Client Sample ID: RC4-SC-138
Date Collected: 04/11/17 14:45
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-2
Matrix: Solid
Percent Solids: 76.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.5	0.40	mg/Kg	☼	04/18/17 16:54	04/19/17 17:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	40	7	44 - 123				0/ 5/ 5/ 4:18 6/	0/ 5/ 5/ 4:14 6/ 3	1

Client Sample ID: RC4-SC-139
Date Collected: 04/11/17 14:50
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-3
Matrix: Solid
Percent Solids: 69.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	2.3		1.8	0.49	mg/Kg	☼	04/18/17 16:54	04/19/17 18:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	40	7	44 - 123				0/ 5/ 5/ 4:18 6/	0/ 5/ 5/ 4:1 6/	1

Client Sample ID: RC4-SC-140
Date Collected: 04/11/17 14:55
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-4
Matrix: Solid
Percent Solids: 69.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	3.3		1.8	0.48	mg/Kg	☼	04/18/17 16:54	04/19/17 18:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	8/	7	44 - 123				0/ 5/ 5/ 4:18 6/	0/ 5/ 5/ 4:1 6/ 3	1

Client Sample ID: RC4-SC-141
Date Collected: 04/11/17 15:00
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-5
Matrix: Solid
Percent Solids: 82.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.5	0.41	mg/Kg	☼	04/18/17 16:54	04/19/17 18:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	82	7	44 - 123				0/ 5/ 5/ 4:18 6/	0/ 5/ 5/ 4:1 6/	1

Client Sample ID: RC4-SC-142
Date Collected: 04/11/17 15:05
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-6
Matrix: Solid
Percent Solids: 82.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.4	0.38	mg/Kg	☼	04/18/17 16:54	04/19/17 19:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	43	7	44 - 123				0/ 5/ 5/ 4:18 6/	0/ 5/ 5/ 4:1p 6/ 3	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO

TestAmerica Job ID: 280-95794-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Sample ID: RC4-SC-143

Date Collected: 04/11/17 15:10

Date Received: 04/12/17 08:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	51		1.4	0.39	mg/Kg	☼	04/18/17 16:54	04/19/17 16:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	p4		44 - 123				0/ 5/ 5/ 4:1809/	0/ 5/ 5/ 4:1802	1

Lab Sample ID: 280-95794-7

Matrix: Solid

Percent Solids: 83.9

Client Sample ID: RC4-SC-144

Date Collected: 04/11/17 15:15

Date Received: 04/12/17 08:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.4	0.37	mg/Kg	☼	04/18/17 16:54	04/19/17 19:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	41	7	44 - 123				0/ 5/ 5/ 4:1809/	0/ 5/ 5/ 4:1802	1

Lab Sample ID: 280-95794-8

Matrix: Solid

Percent Solids: 85.3

Client Sample ID: RC4-SC-145

Date Collected: 04/11/17 15:20

Date Received: 04/12/17 08:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.5	0.39	mg/Kg	☼	04/18/17 16:54	04/19/17 20:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	83	7	44 - 123				0/ 5/ 5/ 4:1809/	0/ 5/ 5/ 4:2002	1

Lab Sample ID: 280-95794-9

Matrix: Solid

Percent Solids: 86.8

Client Sample ID: RC4-SC-146

Date Collected: 04/11/17 15:25

Date Received: 04/12/17 08:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.3	0.36	mg/Kg	☼	04/18/17 16:54	04/19/17 21:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	8p	7	44 - 123				0/ 5/ 5/ 4:1809/	0/ 5/ 5/ 4:2102	1

Lab Sample ID: 280-95794-10

Matrix: Solid

Percent Solids: 85.8

Client Sample ID: RC4-SC-147

Date Collected: 04/11/17 15:30

Date Received: 04/12/17 08:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.4	0.38	mg/Kg	☼	04/18/17 16:54	04/19/17 22:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	40	7	44 - 123				0/ 5/ 5/ 4:1809/	0/ 5/ 5/ 4:2208	1

Lab Sample ID: 280-95794-11

Matrix: Solid

Percent Solids: 85.2

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-SC-137

Date Collected: 04/11/17 14:40

Date Received: 04/12/17 08:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	13	F1	4.7	0.80	mg/Kg	☼	04/13/17 11:07	04/17/17 18:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl(I:9 urrX	98		/ p - 119				0/ 5/ 35/ 4:1104	0/ 5/ 45/ 4:1 6	1

Lab Sample ID: 280-95794-1

Matrix: Solid

Percent Solids: 82.1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO

TestAmerica Job ID: 280-95794-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-SC-138

Date Collected: 04/11/17 14:45

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-2

Matrix: Solid

Percent Solids: 76.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	11		5.1	0.87	mg/Kg	☼	04/13/17 11:07	04/17/17 19:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terhyen(I:§ urrX	90		/p - 119				0/ 513514:1104	0/ 514514:1p03	1

Client Sample ID: RC4-SC-139

Date Collected: 04/11/17 14:50

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-3

Matrix: Solid

Percent Solids: 69.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	5.8		5.6	0.94	mg/Kg	☼	04/13/17 11:07	04/17/17 19:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terhyen(I:§ urrX	p1		/p - 119				0/ 513514:1104	0/ 514514:1p04	1

Client Sample ID: RC4-SC-140

Date Collected: 04/11/17 14:55

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-4

Matrix: Solid

Percent Solids: 69.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	9.2		5.8	0.98	mg/Kg	☼	04/13/17 11:07	04/17/17 20:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terhyen(I:§ urrX	9/		/p - 119				0/ 513514:1104	0/ 514514:2002	1

Client Sample ID: RC4-SC-141

Date Collected: 04/11/17 15:00

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-5

Matrix: Solid

Percent Solids: 82.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	33		4.6	0.79	mg/Kg	☼	04/13/17 11:07	04/17/17 20:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terhyen(I:§ urrX	81		/p - 119				0/ 513514:1104	0/ 514514:2004	1

Client Sample ID: RC4-SC-142

Date Collected: 04/11/17 15:05

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-6

Matrix: Solid

Percent Solids: 82.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	27		4.6	0.78	mg/Kg	☼	04/13/17 11:07	04/17/17 22:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terhyen(I:§ urrX	92		/p - 119				0/ 513514:1104	0/ 514514:2201	1

Client Sample ID: RC4-SC-143

Date Collected: 04/11/17 15:10

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-7

Matrix: Solid

Percent Solids: 83.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	320		4.5	0.77	mg/Kg	☼	04/13/17 11:07	04/17/17 22:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terhyen(I:§ urrX	41		/p - 119				0/ 513514:1104	0/ 514514:2208	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO

TestAmerica Job ID: 280-95794-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Sample ID: RC4-SC-144

Date Collected: 04/11/17 15:15

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-8

Matrix: Solid

Percent Solids: 85.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	110		4.6	0.79	mg/Kg	☼	04/13/17 11:07	04/17/17 22:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terhyen(<i>l</i> : <i>g</i> urrX	11/		/p - 119	0/ 513514:1104	0/ 514514:2201	1

Client Sample ID: RC4-SC-145

Date Collected: 04/11/17 15:20

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-9

Matrix: Solid

Percent Solids: 86.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	100		4.3	0.73	mg/Kg	☼	04/13/17 11:07	04/17/17 23:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terhyen(<i>l</i> : <i>g</i> urrX	p		/p - 119	0/ 513514:1104	0/ 514514:2309	1

Client Sample ID: RC4-SC-146

Date Collected: 04/11/17 15:25

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-10

Matrix: Solid

Percent Solids: 85.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	70		4.6	0.78	mg/Kg	☼	04/13/17 11:07	04/17/17 23:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terhyen(<i>l</i> : <i>g</i> urrX	p2		/p - 119	0/ 513514:1104	0/ 514514:2300	1

Client Sample ID: RC4-SC-147

Date Collected: 04/11/17 15:30

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-11

Matrix: Solid

Percent Solids: 85.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	3.2	J	4.7	0.79	mg/Kg	☼	04/13/17 11:07	04/18/17 00:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terhyen(<i>l</i> : <i>g</i> urrX	8		/p - 119	0/ 513514:1104	0/ 514514:0000/	1

General Chemistry

Client Sample ID: RC4-SC-137

Date Collected: 04/11/17 14:40

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-1

Matrix: Solid

Percent Solids: 82.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.9		0.1	0.1	%			04/19/17 18:44	1
Percent Solids	82.1		0.1	0.1	%			04/19/17 18:44	1

Client Sample ID: RC4-SC-138

Date Collected: 04/11/17 14:45

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-2

Matrix: Solid

Percent Solids: 76.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23.2		0.1	0.1	%			04/19/17 18:44	1
Percent Solids	76.8		0.1	0.1	%			04/19/17 18:44	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO

TestAmerica Job ID: 280-95794-1

General Chemistry

Client Sample ID: RC4-SC-139
Date Collected: 04/11/17 14:50
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-3
Matrix: Solid
Percent Solids: 69.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	30.2		0.1	0.1	%			04/19/17 18:44	1
Percent Solids	69.8		0.1	0.1	%			04/19/17 18:44	1

Client Sample ID: RC4-SC-140
Date Collected: 04/11/17 14:55
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-4
Matrix: Solid
Percent Solids: 69.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	31.0		0.1	0.1	%			04/19/17 18:44	1
Percent Solids	69.0		0.1	0.1	%			04/19/17 18:44	1

Client Sample ID: RC4-SC-141
Date Collected: 04/11/17 15:00
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-5
Matrix: Solid
Percent Solids: 82.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.4		0.1	0.1	%			04/19/17 18:44	1
Percent Solids	82.6		0.1	0.1	%			04/19/17 18:44	1

Client Sample ID: RC4-SC-142
Date Collected: 04/11/17 15:05
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-6
Matrix: Solid
Percent Solids: 82.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.3		0.1	0.1	%			04/19/17 18:44	1
Percent Solids	82.7		0.1	0.1	%			04/19/17 18:44	1

Client Sample ID: RC4-SC-143
Date Collected: 04/11/17 15:10
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-7
Matrix: Solid
Percent Solids: 83.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.1		0.1	0.1	%			04/20/17 13:39	1
Percent Solids	83.9		0.1	0.1	%			04/20/17 13:39	1

Client Sample ID: RC4-SC-144
Date Collected: 04/11/17 15:15
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-8
Matrix: Solid
Percent Solids: 85.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.7		0.1	0.1	%			04/19/17 18:44	1
Percent Solids	85.3		0.1	0.1	%			04/19/17 18:44	1

Client Sample ID: RC4-SC-145
Date Collected: 04/11/17 15:20
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-9
Matrix: Solid
Percent Solids: 86.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.2		0.1	0.1	%			04/19/17 18:44	1
Percent Solids	86.8		0.1	0.1	%			04/19/17 18:44	1

Client Sample ID: RC4-SC-146
Date Collected: 04/11/17 15:25
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-10
Matrix: Solid
Percent Solids: 85.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.2		0.1	0.1	%			04/19/17 18:44	1
Percent Solids	85.8		0.1	0.1	%			04/19/17 18:44	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO

TestAmerica Job ID: 280-95794-1

General Chemistry

Client Sample ID: RC4-SC-147

Date Collected: 04/11/17 15:30

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-11

Matrix: Solid

Percent Solids: 85.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.8		0.1	0.1	%			04/19/17 18:44	1
Percent Solids	85.2		0.1	0.1	%			04/19/17 18:44	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO

TestAmerica Job ID: 280-95794-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	TFT1 (77-123)
280-95794-1	RC4-SC-137	67 X
280-95794-2	RC4-SC-138	70 X
280-95794-3	RC4-SC-139	70 X
280-95794-4	RC4-SC-140	64 X
280-95794-5	RC4-SC-141	62 X
280-95794-6	RC4-SC-142	73 X
280-95794-7	RC4-SC-143	97
280-95794-8	RC4-SC-144	71 X
280-95794-9	RC4-SC-145	63 X
280-95794-10	RC4-SC-146	69 X
280-95794-10 MSD	RC4-SC-146	60 X
280-95794-11	RC4-SC-147	70 X
LCS 280-369883/2-A	Lab Control Sample	86
MB 280-369883/1-A	Method Blank	84
Surrogate Legend		
TFT = a,a,a-Trifluorotoluene		

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	OTPH1 (49-115)
280-95794-1	RC4-SC-137	56
280-95794-1 MS	RC4-SC-137	59
280-95794-1 MSD	RC4-SC-137	73
280-95794-2	RC4-SC-138	50
280-95794-3	RC4-SC-139	91
280-95794-4	RC4-SC-140	54
280-95794-5	RC4-SC-141	61
280-95794-6	RC4-SC-142	52
280-95794-7	RC4-SC-143	71
280-95794-8	RC4-SC-144	114
280-95794-9	RC4-SC-145	89
280-95794-10	RC4-SC-146	92
280-95794-11	RC4-SC-147	86
LCS 280-369208/2-A	Lab Control Sample	117 X
MB 280-369208/1-A	Method Blank	114
Surrogate Legend		
OTPH = o-Terphenyl (Surr)		

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO

TestAmerica Job ID: 280-95794-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Lab Sample ID: MB 280-364883/1-A

Matrix: Solid

Analysis Batch: 370064

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 364883

Analyte	MB Result	MB Qualifier	RL	MDL	z nit	D	Prepared	Analy9ed	Dil Fac
GRO (C6-C10)	ND		1.2	0.33	mg/Kg		04/18/17 16:54	04/19/17 16:02	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	84		77 - 123				04/18/17 1: 04	04/15/17 1: 02	1

Lab Sample ID: LCS 280-364883/2-A

Matrix: Solid

Analysis Batch: 370064

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 364883

Analyte	Spike Added	LCS Result	LCS Qualifier	z nit	D	U Rec	Limits		
GRO (C6-C10)	5.50	6.63		mg/Kg		121	85 - 153		
Surrogate	%Recovery	LCS Qualifier	Limits						
a,a,a-Trifluorotoluene	8:		77 - 123						

Lab Sample ID: 280-4574. -10 MSD

Matrix: Solid

Analysis Batch: 370064

Client Sample ID: RC. -SC-1. 6

Prep Type: Total/NA

Prep Batch: 364883

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	z nit	D	U Rec	U Rec%	RPD	Limit
GRO (C6-C10)	ND		6.62	5.75		mg/Kg	✱	87	85 - 153	12	30
Surrogate	%Recovery	MSD Qualifier	Limits								
a,a,a-Trifluorotoluene	: 0	p	77 - 123								

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 280-364208/1-A

Matrix: Solid

Analysis Batch: 364644

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 364208

Analyte	MB Result	MB Qualifier	RL	MDL	z nit	D	Prepared	Analy9ed	Dil Fac
DRO (C10-C28)	ND		4.0	0.68	mg/Kg		04/13/17 11:07	04/17/17 17:29	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terhyen(I § urrX	114		45 - 119				04/13/17 11:07	04/17/17 17:25	1

Lab Sample ID: LCS 280-364208/2-A

Matrix: Solid

Analysis Batch: 364644

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 364208

Analyte	Spike Added	LCS Result	LCS Qualifier	z nit	D	U Rec	Limits		
DRO (C10-C28)	66.7	66.4		mg/Kg		100	53 - 115		
Surrogate	%Recovery	LCS Qualifier	Limits						
o-Terhyen(I § urrX	117	p	45 - 119						

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO

TestAmerica Job ID: 280-95794-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: 280-4574. -1 MS

Matrix: Solid

Analysis Batch: 364644

Client Sample ID: RC. -SC-137

Prep Type: Total/NA

Prep Batch: 364208

U Rec%

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	z nit	D	U Rec	Limits
DRO (C10-C28)	13	F1	74.2	51.8	F1	mg/Kg	☼	52	56 - 115

Surrogate	MS %Recovery	MS Qualifier	Limits
o-Terhyen(I § urrX	95		45 - 119

Lab Sample ID: 280-4574. -1 MSD

Matrix: Solid

Analysis Batch: 364644

Client Sample ID: RC. -SC-137

Prep Type: Total/NA

Prep Batch: 364208

U Rec%

RPD

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	z nit	D	U Rec	Limits	RPD	Limit
DRO (C10-C28)	13	F1	77.8	64.1		mg/Kg	☼	66	56 - 115	21	23

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o-Terhyen(I § urrX	73		45 - 119

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO

TestAmerica Job ID: 280-95794-1

GC VOA

Prep Batch: 369883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95794-1	RC4-SC-137	Total/NA	Solid	5030A	
280-95794-2	RC4-SC-138	Total/NA	Solid	5030A	
280-95794-3	RC4-SC-139	Total/NA	Solid	5030A	
280-95794-4	RC4-SC-140	Total/NA	Solid	5030A	
280-95794-5	RC4-SC-141	Total/NA	Solid	5030A	
280-95794-6	RC4-SC-142	Total/NA	Solid	5030A	
280-95794-7	RC4-SC-143	Total/NA	Solid	5030A	
280-95794-8	RC4-SC-144	Total/NA	Solid	5030A	
280-95794-9	RC4-SC-145	Total/NA	Solid	5030A	
280-95794-10	RC4-SC-146	Total/NA	Solid	5030A	
280-95794-11	RC4-SC-147	Total/NA	Solid	5030A	
MB 280-369883/1-A	Method Blank	Total/NA	Solid	5030A	
LCS 280-369883/2-A	Lab Control Sample	Total/NA	Solid	5030A	
280-95794-10 MSD	RC4-SC-146	Total/NA	Solid	5030A	

Analysis Batch: 370069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95794-1	RC4-SC-137	Total/NA	Solid	8015C	369883
280-95794-2	RC4-SC-138	Total/NA	Solid	8015C	369883
280-95794-3	RC4-SC-139	Total/NA	Solid	8015C	369883
280-95794-4	RC4-SC-140	Total/NA	Solid	8015C	369883
280-95794-5	RC4-SC-141	Total/NA	Solid	8015C	369883
280-95794-6	RC4-SC-142	Total/NA	Solid	8015C	369883
280-95794-7	RC4-SC-143	Total/NA	Solid	8015C	369883
280-95794-8	RC4-SC-144	Total/NA	Solid	8015C	369883
280-95794-9	RC4-SC-145	Total/NA	Solid	8015C	369883
280-95794-10	RC4-SC-146	Total/NA	Solid	8015C	369883
280-95794-11	RC4-SC-147	Total/NA	Solid	8015C	369883
MB 280-369883/1-A	Method Blank	Total/NA	Solid	8015C	369883
LCS 280-369883/2-A	Lab Control Sample	Total/NA	Solid	8015C	369883
280-95794-10 MSD	RC4-SC-146	Total/NA	Solid	8015C	369883

GC Semi VOA

Prep Batch: 369208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95794-1	RC4-SC-137	Total/NA	Solid	3546	
280-95794-2	RC4-SC-138	Total/NA	Solid	3546	
280-95794-3	RC4-SC-139	Total/NA	Solid	3546	
280-95794-4	RC4-SC-140	Total/NA	Solid	3546	
280-95794-5	RC4-SC-141	Total/NA	Solid	3546	
280-95794-6	RC4-SC-142	Total/NA	Solid	3546	
280-95794-7	RC4-SC-143	Total/NA	Solid	3546	
280-95794-8	RC4-SC-144	Total/NA	Solid	3546	
280-95794-9	RC4-SC-145	Total/NA	Solid	3546	
280-95794-10	RC4-SC-146	Total/NA	Solid	3546	
280-95794-11	RC4-SC-147	Total/NA	Solid	3546	
MB 280-369208/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-369208/2-A	Lab Control Sample	Total/NA	Solid	3546	
280-95794-1 MS	RC4-SC-137	Total/NA	Solid	3546	

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO

TestAmerica Job ID: 280-95794-1

GC Semi VOA (Continued)

Prep Batch: 369208 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95794-1 MSD	RC4-SC-137	Total/NA	Solid	3546	

Analysis Batch: 369699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95794-1	RC4-SC-137	Total/NA	Solid	8015C	369208
280-95794-2	RC4-SC-138	Total/NA	Solid	8015C	369208
280-95794-3	RC4-SC-139	Total/NA	Solid	8015C	369208
280-95794-4	RC4-SC-140	Total/NA	Solid	8015C	369208
280-95794-5	RC4-SC-141	Total/NA	Solid	8015C	369208
280-95794-6	RC4-SC-142	Total/NA	Solid	8015C	369208
280-95794-7	RC4-SC-143	Total/NA	Solid	8015C	369208
280-95794-8	RC4-SC-144	Total/NA	Solid	8015C	369208
280-95794-9	RC4-SC-145	Total/NA	Solid	8015C	369208
280-95794-10	RC4-SC-146	Total/NA	Solid	8015C	369208
280-95794-11	RC4-SC-147	Total/NA	Solid	8015C	369208
MB 280-369208/1-A	Method Blank	Total/NA	Solid	8015C	369208
LCS 280-369208/2-A	Lab Control Sample	Total/NA	Solid	8015C	369208
280-95794-1 MS	RC4-SC-137	Total/NA	Solid	8015C	369208
280-95794-1 MSD	RC4-SC-137	Total/NA	Solid	8015C	369208

General Chemistry

Analysis Batch: 370090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95794-1	RC4-SC-137	Total/NA	Solid	Moisture	
280-95794-2	RC4-SC-138	Total/NA	Solid	Moisture	
280-95794-3	RC4-SC-139	Total/NA	Solid	Moisture	
280-95794-4	RC4-SC-140	Total/NA	Solid	Moisture	
280-95794-5	RC4-SC-141	Total/NA	Solid	Moisture	
280-95794-6	RC4-SC-142	Total/NA	Solid	Moisture	
280-95794-8	RC4-SC-144	Total/NA	Solid	Moisture	
280-95794-9	RC4-SC-145	Total/NA	Solid	Moisture	
280-95794-10	RC4-SC-146	Total/NA	Solid	Moisture	
280-95794-11	RC4-SC-147	Total/NA	Solid	Moisture	

Analysis Batch: 370230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95794-7	RC4-SC-143	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO

TestAmerica Job ID: 280-95794-1

Client Sample ID: RC4-SC-182

Date Collecte/ : 5471712 14:45

Date Recei6e/ : 54710712 59:4x

Lab Sample ID: 095-Mk2M4-1

d atri3: Soli/

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			370090	04/19/17 18:44	SVC	TAL DEN

Client Sample ID: RC4-SC-182

Date Collecte/ : 5471712 14:45

Date Recei6e/ : 54710712 59:4x

Lab Sample ID: 095-Mk2M4-1

d atri3: Soli/

Bercent Soli/ A: 90M

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5030A			5.19 g	5 mL	369883	04/18/17 16:54	AMB1	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	370069	04/19/17 17:18	TEM	TAL DEN
Total/NA	Prep	3546			31.1 g	1 mL	369208	04/13/17 11:07	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			369699	04/17/17 18:18	TEM	TAL DEN

Client Sample ID: RC4-SC-189

Date Collecte/ : 5471712 14:4x

Date Recei6e/ : 54710712 59:4x

Lab Sample ID: 095-Mk2M4-0

d atri3: Soli/

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			370090	04/19/17 18:44	SVC	TAL DEN

Client Sample ID: RC4-SC-189

Date Collecte/ : 5471712 14:4x

Date Recei6e/ : 54710712 59:4x

Lab Sample ID: 095-Mk2M4-0

d atri3: Soli/

Bercent Soli/ A: 2. M

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5030A			5.27 g	5 mL	369883	04/18/17 16:54	AMB1	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	370069	04/19/17 17:43	TEM	TAL DEN
Total/NA	Prep	3546			30.6 g	1 mL	369208	04/13/17 11:07	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			369699	04/17/17 19:33	TEM	TAL DEN

Client Sample ID: RC4-SC-18M

Date Collecte/ : 5471712 14:x5

Date Recei6e/ : 54710712 59:4x

Lab Sample ID: 095-Mk2M4-8

d atri3: Soli/

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			370090	04/19/17 18:44	SVC	TAL DEN

Client Sample ID: RC4-SC-18M

Date Collecte/ : 5471712 14:x5

Date Recei6e/ : 54710712 59:4x

Lab Sample ID: 095-Mk2M4-8

d atri3: Soli/

Bercent Soli/ A: M

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5030A			4.74 g	5 mL	369883	04/18/17 16:54	AMB1	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO

TestAmerica Job ID: 280-95794-1

Client Sample ID: RC4-SC-18M

Date Collecte/ : 5471712 14:x5

Date Recei6e/ : 54710712 59:4x

Lab Sample ID: 095-Mk2M4-8

d atri3: Soli/

Bercent Soli/ A : M9

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	370069	04/19/17 18:08	TEM	TAL DEN
Total/NA	Prep	3546			30.9 g	1 mL	369208	04/13/17 11:07	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			369699	04/17/17 19:57	TEM	TAL DEN

Client Sample ID: RC4-SC-145

Date Collecte/ : 5471712 14:xx

Date Recei6e/ : 54710712 59:4x

Lab Sample ID: 095-Mk2M4-4

d atri3: Soli/

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			370090	04/19/17 18:44	SVC	TAL DEN

Client Sample ID: RC4-SC-145

Date Collecte/ : 5471712 14:xx

Date Recei6e/ : 54710712 59:4x

Lab Sample ID: 095-Mk2M4-4

d atri3: Soli/

Bercent Soli/ A : M5

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5030A			4.88 g	5 mL	369883	04/18/17 16:54	AMB1	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	370069	04/19/17 18:33	TEM	TAL DEN
Total/NA	Prep	3546			30.1 g	1 mL	369208	04/13/17 11:07	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			369699	04/17/17 20:22	TEM	TAL DEN

Client Sample ID: RC4-SC-141

Date Collecte/ : 5471712 1x:55

Date Recei6e/ : 54710712 59:4x

Lab Sample ID: 095-Mk2M4-x

d atri3: Soli/

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			370090	04/19/17 18:44	SVC	TAL DEN

Client Sample ID: RC4-SC-141

Date Collecte/ : 5471712 1x:55

Date Recei6e/ : 54710712 59:4x

Lab Sample ID: 095-Mk2M4-x

d atri3: Soli/

Bercent Soli/ A: 90N

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5030A			4.75 g	5 mL	369883	04/18/17 16:54	AMB1	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	370069	04/19/17 18:58	TEM	TAL DEN
Total/NA	Prep	3546			31.3 g	1 mL	369208	04/13/17 11:07	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			369699	04/17/17 20:47	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO

TestAmerica Job ID: 280-95794-1

Client Sample ID: RC4-SC-140

Date Collecte/ : 5471712 1x:5x

Date Recei6e/ : 5471072 59:4x

Lab Sample ID: 095-Mx2M4-

d atri3: Soli/

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			370090	04/19/17 18:44	SVC	TAL DEN

Client Sample ID: RC4-SC-140

Date Collecte/ : 5471712 1x:5x

Date Recei6e/ : 5471072 59:4x

Lab Sample ID: 095-Mx2M4-

d atri3: Soli/

Bercent Soli/ A: 90M

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5030A			5.17 g	5 mL	369883	04/18/17 16:54	AMB1	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	370069	04/19/17 19:23	TEM	TAL DEN
Total/NA	Prep	3546			31.4 g	1 mL	369208	04/13/17 11:07	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			369699	04/17/17 22:01	TEM	TAL DEN

Client Sample ID: RC4-SC-148

Date Collecte/ : 5471712 1x:15

Date Recei6e/ : 5471072 59:4x

Lab Sample ID: 095-Mx2M4-2

d atri3: Soli/

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			370230	04/20/17 13:39	PAH	TAL DEN

Client Sample ID: RC4-SC-148

Date Collecte/ : 5471712 1x:15

Date Recei6e/ : 5471072 59:4x

Lab Sample ID: 095-Mx2M4-2

d atri3: Soli/

Bercent Soli/ A: 98M

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5030A			4.99 g	5 mL	369883	04/18/17 16:54	AMB1	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	370069	04/19/17 16:52	TEM	TAL DEN
Total/NA	Prep	3546			31.6 g	1 mL	369208	04/13/17 11:07	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			369699	04/17/17 22:26	TEM	TAL DEN

Client Sample ID: RC4-SC-144

Date Collecte/ : 5471712 1x:1x

Date Recei6e/ : 5471072 59:4x

Lab Sample ID: 095-Mx2M4-9

d atri3: Soli/

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			370090	04/19/17 18:44	SVC	TAL DEN

Client Sample ID: RC4-SC-144

Date Collecte/ : 5471712 1x:1x

Date Recei6e/ : 5471072 59:4x

Lab Sample ID: 095-Mx2M4-9

d atri3: Soli/

Bercent Soli/ A: 9xM

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5030A			5.11 g	5 mL	369883	04/18/17 16:54	AMB1	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO

TestAmerica Job ID: 280-95794-1

Client Sample ID: RC4-SC-144

Lab Sample ID: 095-Mk2M4-9

Date Collecte/ : 5471712 1x:1x

d atri3: Soli/

Date Recei6e/ : 54710712 59:4x

Bercent Soli/ A: 9x18

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	370069	04/19/17 19:48	TEM	TAL DEN
Total/NA	Prep	3546			30.3 g	1 mL	369208	04/13/17 11:07	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			369699	04/17/17 22:51	TEM	TAL DEN

Client Sample ID: RC4-SC-14x

Lab Sample ID: 095-Mk2M4-M

Date Collecte/ : 5471712 1x:05

d atri3: Soli/

Date Recei6e/ : 54710712 59:4x

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			370090	04/19/17 18:44	SVC	TAL DEN

Client Sample ID: RC4-SC-14x

Lab Sample ID: 095-Mk2M4-M

Date Collecte/ : 5471712 1x:05

d atri3: Soli/

Date Recei6e/ : 54710712 59:4x

Bercent Soli/ A: 9. 9

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5030A			4.76 g	5 mL	369883	04/18/17 16:54	AMB1	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	370069	04/19/17 20:12	TEM	TAL DEN
Total/NA	Prep	3546			32.2 g	1 mL	369208	04/13/17 11:07	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			369699	04/17/17 23:15	TEM	TAL DEN

Client Sample ID: RC4-SC-14.

Lab Sample ID: 095-Mk2M4-15

Date Collecte/ : 5471712 1x:0x

d atri3: Soli/

Date Recei6e/ : 54710712 59:4x

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			370090	04/19/17 18:44	SVC	TAL DEN

Client Sample ID: RC4-SC-14.

Lab Sample ID: 095-Mk2M4-15

Date Collecte/ : 5471712 1x:0x

d atri3: Soli/

Date Recei6e/ : 54710712 59:4x

Bercent Soli/ A: 9x18

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5030A			5.20 g	5 mL	369883	04/18/17 16:54	AMB1	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	370069	04/19/17 21:02	TEM	TAL DEN
Total/NA	Prep	3546			30.3 g	1 mL	369208	04/13/17 11:07	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			369699	04/17/17 23:40	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO

TestAmerica Job ID: 280-95794-1

Client Sample ID: RC4-SC-142

Lab Sample ID: 095-Mk2M4-11

Date Collecte/ : 5471712 1x:85

d atri3: Soli/

Date Recei6e/ : 54710712 59:4x

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Analysis	Moisture		1			370090	04/19/17 18:44	SVC	TAL DEN

Client Sample ID: RC4-SC-142

Lab Sample ID: 095-Mk2M4-11

Date Collecte/ : 5471712 1x:85

d atri3: Soli/

Date Recei6e/ : 54710712 59:4x

Bercent Soli/ A: 9xN

Brep vTpe	yatch vTpe	yatch d etho/	Rsn	Dil zactor	Initial Pmosnt	zinal Pmosnt	yatch Fsmber	Bprepare/ or PnalTue/	PnalTA	Lab
Total/NA	Prep	5030A			5.00 g	5 mL	369883	04/18/17 16:54	AMB1	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	370069	04/19/17 22:16	TEM	TAL DEN
Total/NA	Prep	3546			30.1 g	1 mL	369208	04/13/17 11:07	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			369699	04/18/17 00:04	TEM	TAL DEN

LaboratorT ReferenceA:

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

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO

TestAmerica Job ID: 280-95794-1

Laboratory: TestAmerica Denver

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
A2LA	DoD ELAP		2907.01	10-31-17
A2LA	ISO/IEC 17025		2907.01	10-31-17
Alabama	State Program	4	40730	09-30-12 *
Alaska (UST)	State Program	10	UST-30	04-05-18
Arizona	State Program	9	AZ0713	12-20-17
Arkansas DEQ	State Program	6	88-0687	06-01-17
California	State Program	9	2513	01-08-18 *
Connecticut	State Program	1	PH-0686	09-30-18
Florida	NELAP	4	E87667	06-30-17
Georgia	State Program	4	N/A	01-08-18
Illinois	NELAP	5	200017	04-30-18
Iowa	State Program	7	370	12-01-18 *
Kansas	NELAP	7	E-10166	04-30-17 *
Louisiana	NELAP	6	02096	06-30-17
Maine	State Program	1	CO0002	03-03-19
Minnesota	NELAP	5	8-999-405	12-31-17 *
Nevada	State Program	9	CO0026	07-31-17
New Hampshire	NELAP	1	205310	04-28-17
New Jersey	NELAP	2	CO004	06-30-17
New York	NELAP	2	11964	04-01-18
North Carolina (WW/SW)	State Program	4	358	12-31-17
North Dakota	State Program	8	R-034	01-09-18
Oklahoma	State Program	6	8614	08-31-17
Oregon	NELAP	10	4025	01-08-18
Pennsylvania	NELAP	3	68-00664	07-31-17
South Carolina	State Program	4	72002001	01-09-17 *
Texas	NELAP	6	T104704183-16-12	09-30-17
USDA	Federal		P330-16-00397	12-15-19
Utah	NELAP	8	CO00026	07-31-17
Virginia	NELAP	3	460232	06-14-17
Washington	State Program	10	C583	08-02-17
West Virginia DEP	State Program	3	354	11-30-17
Wisconsin	State Program	5	999615430	08-31-17
Wyoming (UST)	A2LA	8	2907.01	10-31-17

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

TestAmerica Denver

Chain of Custody Record

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002-4517
phone 303.736.0100 fax 303.431.7171

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: ☐ **TestAmerica Laboratories, Inc.**

Client Contact		Project Manager: Bethany Lucente		Site Contact: Bethany Lucente		Date: 4/11/2017		COC No:	
Stantec		Tel/Fax: (303) 250-4718		Lab Contact: Jamie Ide		Carrier: Courier		1 of 1 Pages	
2000 South Colorado Blvd., Suite 2-300								Sampler: Slaughter/Jones	
Denver, CO 80222								For Lab Use Only:	
								Walk-in Client:	
								Lab Sampling:	
								Job / SDG No.:	
								Sample Specific Notes:	

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Analysis Turnaround Time		Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	DRO-TEPH 8015C	DRO-TEPH 8015C	Sample Specific Notes:
						CALENDAR DAYS	WORKING DAYS					
RC4-SC-137	4/11/2017	1440	G	Soil	2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	N	X	X	
RC4-SC-138	3/30/2017	1445	G	Soil	2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	N	X	X	
RC4-SC-139	3/30/2017	1450	G	Soil	2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	N	X	X	
RC4-SC-140	3/30/2017	1455	G	Soil	2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	N	X	X	
RC4-SC-141	3/30/2017	1500	G	Soil	2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	N	X	X	
RC4-SC-142	3/30/2017	1505	G	Soil	2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	N	X	X	
RC4-SC-143	3/30/2017	1510	G	Soil	2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	N	X	X	
RC4-SC-144	3/30/2017	1515	G	Soil	2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	N	X	X	
RC4-SC-145	3/30/2017	1520	G	Soil	2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	N	X	X	
RC4-SC-146	3/30/2017	1525	G	Soil	2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	N	X	X	
RC4-SC-147	3/30/2017	1530	G	Soil	2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	N	X	X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification: Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Special Instructions/QC Requirements & Comments:

Metals include Ba, B, Cd, Cr, Cu, Pb, Ni, Se, Ag, Zn

3, 4, 1, 2, 0 to 0 IR #7 JT 411717

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Custody Seal No.:		Cooler Temp. (°C):		Obs'd:		Corr'd:		Therm ID No.:	
Company: Stantec		Date/Time: 4/11/17 16:20		Received by: [Signature]		Company: 4-11-17 420		Date/Time:	
Company: [Signature]		Date/Time: 4/12/17 8:45		Received by: [Signature]		Company: [Signature]		Date/Time: 4-12-17 8:45	
Company: [Signature]		Date/Time:		Received in Laboratory by:		Company:		Date/Time:	

Production Order

Chain of Custody Record

123456789101112131415

Sample Information		Sample Location		Sample Date		Sample Time		Sample ID		Sample Description		Sample Status		Sample Notes	
Sample ID	Sample Name	Sample Location	Sample Date	Sample Time	Sample ID	Sample Name	Sample Location	Sample Date	Sample Time	Sample ID	Sample Name	Sample Location	Sample Date	Sample Time	Sample ID
1	Sample 1	Sample 1	Sample 1	Sample 1	1	Sample 1	Sample 1	Sample 1	Sample 1	1	Sample 1	Sample 1	Sample 1	Sample 1	1
2	Sample 2	Sample 2	Sample 2	Sample 2	2	Sample 2	Sample 2	Sample 2	Sample 2	2	Sample 2	Sample 2	Sample 2	Sample 2	2
3	Sample 3	Sample 3	Sample 3	Sample 3	3	Sample 3	Sample 3	Sample 3	Sample 3	3	Sample 3	Sample 3	Sample 3	Sample 3	3
4	Sample 4	Sample 4	Sample 4	Sample 4	4	Sample 4	Sample 4	Sample 4	Sample 4	4	Sample 4	Sample 4	Sample 4	Sample 4	4
5	Sample 5	Sample 5	Sample 5	Sample 5	5	Sample 5	Sample 5	Sample 5	Sample 5	5	Sample 5	Sample 5	Sample 5	Sample 5	5
6	Sample 6	Sample 6	Sample 6	Sample 6	6	Sample 6	Sample 6	Sample 6	Sample 6	6	Sample 6	Sample 6	Sample 6	Sample 6	6
7	Sample 7	Sample 7	Sample 7	Sample 7	7	Sample 7	Sample 7	Sample 7	Sample 7	7	Sample 7	Sample 7	Sample 7	Sample 7	7
8	Sample 8	Sample 8	Sample 8	Sample 8	8	Sample 8	Sample 8	Sample 8	Sample 8	8	Sample 8	Sample 8	Sample 8	Sample 8	8
9	Sample 9	Sample 9	Sample 9	Sample 9	9	Sample 9	Sample 9	Sample 9	Sample 9	9	Sample 9	Sample 9	Sample 9	Sample 9	9
10	Sample 10	Sample 10	Sample 10	Sample 10	10	Sample 10	Sample 10	Sample 10	Sample 10	10	Sample 10	Sample 10	Sample 10	Sample 10	10
11	Sample 11	Sample 11	Sample 11	Sample 11	11	Sample 11	Sample 11	Sample 11	Sample 11	11	Sample 11	Sample 11	Sample 11	Sample 11	11
12	Sample 12	Sample 12	Sample 12	Sample 12	12	Sample 12	Sample 12	Sample 12	Sample 12	12	Sample 12	Sample 12	Sample 12	Sample 12	12
13	Sample 13	Sample 13	Sample 13	Sample 13	13	Sample 13	Sample 13	Sample 13	Sample 13	13	Sample 13	Sample 13	Sample 13	Sample 13	13
14	Sample 14	Sample 14	Sample 14	Sample 14	14	Sample 14	Sample 14	Sample 14	Sample 14	14	Sample 14	Sample 14	Sample 14	Sample 14	14
15	Sample 15	Sample 15	Sample 15	Sample 15	15	Sample 15	Sample 15	Sample 15	Sample 15	15	Sample 15	Sample 15	Sample 15	Sample 15	15

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-95791-/

Login Number: 95794

List Source: TestAmerica Denver

List Number: 1

Creator: True, Joshua A

Question	Answer	Comment
Is the sample receipt form filled out correctly?	N/A	
Is the cooler temperature is intact.	, rue	
Sample containers are intact.	, rue	
Is the cooler or samples appear to have been compromised or tampered with?	, rue	
Samples were received on ice.	, rue	
Cooler temperature is acceptable.	, rue	
Cooler temperature is recorded.	, rue	
CI C is present.	, rue	
CI C is labeled out in an legible.	, rue	
CI C is labeled out with all pertinent information.	, rue	
Is the Sample name present on CI CH	, rue	
Are there no discrepancies between the containers received and the CI C.	, rue	
Samples are received within (including) tests immediately (SP)	, rue	
Sample containers have legible labels.	, rue	
Containers are not broken or leaking.	, rue	
Sample collection vials are provided.	, rue	
Appropriate sample containers are used.	, rue	
Sample bottles are completely labeled.	, rue	
Sample Preservation required.	N/A	
Is there sufficient volume for all required analyses including anwers?	, rue	
Containers remaining free of headspace or bubble is 4mm x 1/4" P.	N/A	
Duplicate samples are not present.	, rue	
Samples do not require splitting or compositing.	, rue	
Desired Chlorine Check.	N/A	