

Phase I Response Sampling and Analysis Report

Rangely C-4 Incident
Rangely, Colorado



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Sign-off Sheet


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PHASE I RESPONSE SAMPLING AND ANALYSIS REPORT

Table of Contents

1.0	INTRODUCTION	1
2.0	PHASE I RESPONSE SAMPLE COLLECTION	2
2.1	INITIAL SITE SAMPLING TO VALIDATE SAMPLING AND ANALYTICAL METHODOLOGY	2
2.2	SOURCE AREA SOIL EXCAVATION SAMPLES	2
2.3	PERIODIC SCREENING SAMPLES	3
2.4	BACKGROUND SAMPLES	3
2.5	CRUDE OIL SAMPLE ANALYSES	3
3.0	PHASE I SOIL SAMPLING ANALYTICAL RESULTS	4
4.0	PHASE I SOIL SAMPLING AND ANALYSIS PROCEDURES	6
4.1	SAMPLING AND ANALYSIS PROCEDURES	6
4.2	QUALITY ASSURANCE	6
5.0	ADDITIONAL SAMPLING AND REPORTING	8
6.0	REFERENCES.....	9

PHASE I RESPONSE SAMPLING AND ANALYSIS REPORT

LIST OF TABLES

Table 1	Summary of Soil Analytical Results
Table 2	Summary of TPH Analytical Results in Soil
Table 3	Summary of Background Sample Soil Analytical Results

LIST OF FIGURES

Figure 1	Rangely C4, Site Layout
Figures 2-1 through 2-8	Rangely C4, TPH Soil Sample Results – Division 1 through Division 5
Figure 3	Rangely C4, TPH Soil Sample Results – Background Samples

LIST OF APPENDICES

Appendix A	Soil Sample Laboratory Analytical Reports
Appendix B	Background Soil Sample Laboratory Analytical Report
Appendix C	Crude Oil Sample Laboratory Analytical Results

Note: Tables, Figures and Appendices appear at the end of the report.

PHASE I RESPONSE SAMPLING AND ANALYSIS REPORT

INTRODUCTION

May 17, 2017

1.0 INTRODUCTION

On March 5, 2017, Chevron Pipe Line Company (CPL) was notified of a release of crude oil near Rangely, Colorado, approximately 7.1 miles west-northwest of Rangely, Colorado in Rio Blanco County from the Rangely C-4 pad (Site). Product flowed overland approximately 1.8 miles from Rangely C-4 through a dry drainage feature from coordinates 40° 7' 51.86" N, -108° 55' 11.05" W to the Siphon V dam at coordinates 40° 7' 48.76" N, -108° 53' 30.87" W, where it was contained by a permanent siphon dam. The general location of the Site is presented in **Figure 1**.

To assist with focusing response and remediation efforts during this event, the Site was divided into operational units (i.e., Divisions), as presented in **Figure 1**. Of note, the site map was updated in mid-March to sub-divide Division 3 to include Division 4 and Division 5. **Figure 1** is the updated site map.

Three phases of activity are being implemented in response to this release event, which the has been assigned Remediation Project #10149 by the Colorado Oil and Gas Conservation Commission (COGCC). The three phases are defined below.

- Phase I (Emergency Response Phase) – This phase was initiated when the release was detected on March 5, 2017, was concluded on April 30, 2017, and focused on removal of recoverable oil.
- Phase II (Site Remediation Phase) – This phase began May 1, 2017, and is focused on remediation of areas exceeding Colorado Oil and Gas Conservation Commission (COGCC) Table 910-1 analyte limits, as determined primarily based on sampling and laboratory analysis s. Phase II will conclude when Table 910-1 remediation limits are achieved in concurrence with COGCC.
- Phase III (Site Restoration) – This activity is expected to begin in July 2017 following Bureau of Land Management (BLM) approval of a site restoration plan. Some early restoration activities may occur before July 2017 with BLM approval. Completion of the Site Restoration scope will be based on approved criteria established in the site restoration plan for meeting restoration goals.

Activities conducted at the site during Phase I of the response are outlined in detail in the submittal to the COGCC of *Form 27: Remediation Workplan, Rangely C-4 Incident, Rangely, Colorado* dated April 14, 2017 (Remediation Workplan).

This *Phase I Response Sampling and Analysis Report* details all samples collected during the initial phase I of the response (March 5 through April 30, 2017) for the Rangely C-4 Incident. Sampling during Phase I included a crude oil sample, initial samples near the source of the release, screening samples for total petroleum hydrocarbons (TPH) only, and background samples.

PHASE I RESPONSE SAMPLING AND ANALYSIS REPORT

PHASE I RESPONSE SAMPLE COLLECTION
May 17, 2017

2.0 PHASE I RESPONSE SAMPLE COLLECTION

2.1 INITIAL SITE SAMPLING TO VALIDATE SAMPLING AND ANALYTICAL METHODOLOGY

CPL performed preliminary sampling of environmental media (dry drainage feature and associated soils) on March 9 to 12, 2017 to validate the sampling and analyses procedures.

Analytical results from samples collected during the response phase from March 9 to 12, 2017, have been previously presented in the April 14, 2017, Remediation Workplan, and are also presented in **Table 1** and **Table 2**. Sampling locations are shown on **Figure 2-1** through **Figure 2-8**. Laboratory reports and chain of custody documentation are included in **Appendix A**.

As previously described in the April 14, 2017, Remediation Workplan, CPL outlined the following conditions for samples collected between March 9 and March 12:

- Sampling locations designated as HER (Horizontal Extent, Right Bank Descending) and HEL (Horizontal Extent, Left Bank Descending) should serve as surrogate background samples for determining background levels as to Table 910-1 constituents based on lack of hydrocarbon impacts as these samples were located outside the zone of incident exposure to oil. CUL (centerline) samples were collected from the centerline of the dry drainage feature and represent hydrocarbon impacted areas.
- Arsenic concentrations in surrogate background samples were detected at concentrations which exceed the Table 910-1 limits which is expected due to natural geological conditions at the site. Arsenic concentrations ranged from 5.7 to 7.8 milligrams per kilogram (mg/kg) in all samples with no apparent increase for samples with hydrocarbon impacts.
- Benzo(a)pyrene and Dibenzo(a,h)anthracene are not likely to be a driver for site remediation, rather TPH thresholds will be the key constituent determining additional remediation. Reporting limits for these two polycyclic aromatic hydrocarbons (PAH) will be targeted for improvement by the analytical laboratory for future confirmation sampling; however, due to the lack of J-flagged data, these constituents are not expected to exceed Table 910-1 limits once final remediation activities are completed.

2.2 SOURCE AREA SOIL EXCAVATION SAMPLES

Oil impacted soils at the release location were excavated at three isolated excavation areas (immediately under release pipeline, adjacent to the release pipeline, and one area approximately 200 feet from the release area). Post-excavation soil samples were collected on March 18 and 19, 2017, and submitted for analysis for COGCC Table 910-1 analytes. The excavation areas were then backfilled with clean fill material before results were available to ensure safe site conditions. One sample was collected from each excavation area as RC4-EX-15, RC4-EX-16, and RC4-EX-17. Sampling locations are shown on **Figure 2-1**. Results of the post-

PHASE I RESPONSE SAMPLING AND ANALYSIS REPORT

PHASE I RESPONSE SAMPLE COLLECTION
May 17, 2017

excavation soil samples are presented in **Table 1** and **Table 2**, and laboratory reports and chain of custody documentation are included as **Appendix A**.

2.3 PERIODIC SCREENING SAMPLES

Screening samples were collected between March 20 and April 30, 2017 to evaluate the extent of impacts from the Rangely C-4 release, and progress of the response activities. Qualitative visual oiling observations consistent with Shoreline Assessment and Cleanup Training (SCAT, NOAA 2013) principles were used to evaluate the site and support the sample location selection to characterize areas most likely to be impacted above the COGCC Table 910-1 allowable limits. Sampling locations are shown on **Figure 2-1** through **Figure 2-8**, and in **Table 2**.

2.4 BACKGROUND SAMPLES

To understand site background conditions, CPL collected soil samples from 10 non-contaminated locations near the release. The locations were selected to represent non-release affected background locations. Background samples were collected on April 11, 2017, at the locations shown on **Figure 3**. The samples were collected from approximately 0 to 3 inches below ground surface and followed the sampling guidelines as outlined in the *Response Sampling Plan*.

Samples were submitted to TestAmerica Laboratories, Inc. (Denver, Colorado) for analysis of Table 910 parameters. Results are summarized on **Table 3**. Laboratory reports and chain of custody documentation are included in **Appendix B**.

2.5 CRUDE OIL SAMPLE ANALYSES

One source sample was collected by CPL Operations personnel following pigging of the compromised pipeline for forensic fingerprint analysis. A sample of the crude oil was submitted to Pace Analytical Energy Services (Pittsburgh, Pennsylvania) on March 27, 2017, for characterization. Volatile hydrocarbon (C3-C12) and polyaromatic hydrocarbon (PAH) results are included in **Appendix C**. Of note, Benz(a)anthracene and Benzo(a)pyrene were not detected in the Rangely C4 crude oil (i.e. less than 7.5 mg/kg in crude oil).

PHASE I RESPONSE SAMPLING AND ANALYSIS REPORT

PHASE I SOIL SAMPLING ANALYTICAL RESULTS
May 17, 2017

3.0 PHASE I SOIL SAMPLING ANALYTICAL RESULTS

The Phase I Response sampling activities were conducted in accordance with the *Response Sampling Plan*, which was included in the April 14, 2017 Remediation Workplan, and as outlined in the methodologies in Section 4.0. Sample naming convention is further defined in the *Response Sampling Plan*. A summary of the response sampling schedule is provided below:

Initial Sampling and Excavation Sampling

- Week of March 6th:
 - Collected initial soil samples based on oiling observations (SCAT) – RC4-HEL02-0.25, RC4-HEL03-0.25, RC4-HEL06-0.25, RC4-HEL08-0.25, RC4-HEL10-0.25, RC4-HER04-0.25, RC4-HER05-0.25, RC4-HER12-0.25, RC4-HER13-0.25, RC4-HER14-0.25, RC4-CLU07-0.25, RC4-CLU09-0.25, RC4-CLU11-0.25.
 - Results for initial sampling between March 9 and March 12, 2017, were previously discussed in the April 14, 2017, Remediation Workplan, and are summarized above in Section 2.1 and **Table 1**.
- Week of March 13th
 - Collected soil samples from source area excavation – RC4-EX-15-0.25, RC4-EX-16-0.25, RC4-EX-17-0.25
 - Analytical results for excavation sampling between March 18 and March 19, 2017, were previously discussed in the April 14, 2017, Remediation Workplan, and are summarized in **Table 1**.

Screening and Background Sampling

- Week of March 20th:
 - Collected Screening samples RC4-SC-18 through RC4-SC-37
- Week of March 27th:
 - Collected Screening samples RC4-SC-38 through RC4-SC-122
 - A source sample for forensic fingerprint analysis was collected by CPL Operations personnel following pigging of the compromised pipeline.
- Week of April 3rd
 - Collected Screening samples RC4-SC-123 through RC4-SC-136
- Week of April 10th:
 - Collected Screening samples RC4-SC-137 through RC4-SC-147
 - Collected Background soil samples RC4-BA-01 through RC4-BA-10
- Week of May 1st:
 - Collected Screening soil samples RC4-SC-148 through RC4-SC-177 and collect Screening soil samples for the second time at locations RC4-SC-93, 110, 111, 121, and 122
 - Collected Screening soil samples for the second time from locations RC4-SC-40, 41 and 44
 - These sampling results will be presented in the next progress status report.

PHASE I RESPONSE SAMPLING AND ANALYSIS REPORT

PHASE I SOIL SAMPLING ANALYTICAL RESULTS

May 17, 2017

Analytical results for the screening samples collected beginning on March 20, 2017, and located along the spill pathway are presented in **Table 2**, shown on **Figure 2-1** through **Figure 2-8**, and can be summarized as follows:

- 17 samples were collected adjacent to the three excavation sites (RC4-SC38 through RC4-SC-54) and will aid in the development of a remediation plan for Division 1 around the leak site. TPH concentrations exceeded the Table 910-1 limit of 500 mg/kg in 16 of the 17 samples located in this area. Additionally, 8 soils samples were greater than 5,000 mg/kg for TPH.
- 26 samples were collected within the drainage and along the spill pathway within Division 1. TPH concentrations exceeded the Table 910-1 limit of 500 mg/kg in 13 samples with 1 soil sample greater than 5,000 mg/kg for TPH.
- 21 samples were collected within the drainage and along the spill pathway within Division 2. TPH concentrations exceeded the Table 910-1 limit of 500 mg/kg in 20 samples with 6 soil sample greater than 5,000 mg/kg for TPH.
- 26 samples were collected within the drainage and along the spill pathway within Division 3. TPH concentrations exceeded the Table 910-1 limit of 500 mg/kg in 17 samples with 6 soil sample greater than 5,000 mg/kg for TPH.
- 32 samples were collected within the drainage and along the spill pathway within Division 4. TPH concentrations exceeded the Table 910-1 limit of 500 mg/kg in 8 samples with 2 soil sample greater than 5,000 mg/kg for TPH.
- 11 samples were collected within and around Siphon 5 within Division 5. TPH values did not exceed the Table 910-1 limit of 500 mg/kg in the 11 soil samples collected in this division.

Analytical results for the background samples collected April 11, 2017, are presented in **Table 3**, and shown on **Figure 3**. A total of 10 samples were collected from non-contaminated dry drainage features. TPH values did not exceed the Table 910-1 limit of 500 mg/kg in the 10 soil samples collected in these areas, and ranged from less than the reporting limit to 440 mg/kg. Arsenic was detected in all 10 samples at concentrations ranging from 6.0 to 9.2 mg/kg. All other results were below reporting limits or Table 910-1 limits, except for a minor exceedance of benzo(a)pyrene (0.028 mg/kg) in sample RC4-BA-05.

PHASE I RESPONSE SAMPLING AND ANALYSIS REPORT

PHASE I SOIL SAMPLING AND ANALYSIS PROCEDURES
May 17, 2017

4.0 PHASE I SOIL SAMPLING AND ANALYSIS PROCEDURES

4.1 SAMPLING AND ANALYSIS PROCEDURES

Phase I soil sampling was conducted in accordance with the *Response Sampling Plan* included in the April 14, 2017, Remediation Workplan. Generally, samples were collected by hand approximately 0 to 3 inches below ground surface using clean nitrile gloves that were replaced between each sample location. However, for samples RC4-SC-36 and RC4-SC-37, a composite sample was collected at 12 inches below ground surface, by placing the soil in a clean stainless bowl and fully mixing the soils so they were homogeneous.

Soil was placed in laboratory supplied sample containers appropriate for the intended analysis (40 milliliter volatile organic analysis (VOA) vials using a Terracore sampler or 4 oz. clear glass jars), labeled with sample identification number, sample depth, sampler name, sample date, analysis and methodology requested, and time of sample collection. Sample containers were immediately placed in a cooler with ice. Prior to being transported to the laboratory, the samples were packaged, labeled, and retained on ice. Custody seals were placed on each containing cooler, and chain-of-custody procedures were maintained from the time of sample collection until they arrived at the laboratory. Samples were transported via courier to TestAmerica Laboratories in Denver, Colorado.

The crude oil source sample was placed in two 40 mL VOA vials, placed in a cooler under chain-of-custody procedures and shipped via Fed Ex to Pace Analytical Energy Services in Pittsburgh, Pennsylvania. The results are included in Appendix C.

4.2 QUALITY ASSURANCE

Sampling was carried out in accordance with the *Response Sampling Plan*, which included quality assurance (QA) procedures. The goal of the field QA is to document that samples are collected without the effects of accidental cross- or systematic contamination and refers to the sampling, analysis, and data validation procedures for generating valid and defensible data. The following QA sampling was conducted for this incident:

- Field Duplicates – Duplicates samples were collected at a rate of approximately 1 for every 10 analytical samples collected. Each duplicate set was collected for each analysis to be run at that sampling location.
- MS/MSD – Matrix spike/matrix spike duplicate (MS/MSD) samples were collected at a rate of approximately 1 for every 20 samples collected per analysis.

In addition, for the background sampling results (RC4-BA-1 through RC4-BA-10), Data Validation Reports/Checklists summarize compounds that were qualified, and are included in **Appendix B**. Data was validated based on Regional EPA and U.S. EPA National Functional Guidelines. Level II Data validation was performed in accordance with the Scope of Work. Data validation was performed to ensure the quality of project data. One analytical report and associated addenda were validated. The data were validated and reviewed for the following:

- Completeness of data deliverables (chain of custody records, laboratory data, laboratory quality assurance and quality control (QA/QC) data);
- Sample holding time;
- Sample preservation;
- Blank data (method, trip, and equipment);

PHASE I RESPONSE SAMPLING AND ANALYSIS REPORT

PHASE I SOIL SAMPLING AND ANALYSIS PROCEDURES

May 17, 2017

- Surrogate recovery;
- Laboratory control sample (LCS) recovery;
- Laboratory duplicate sample precision;
- MS/MSD recovery; and
- Overall data assessment.

PHASE I RESPONSE SAMPLING AND ANALYSIS REPORT

ADDITIONAL SAMPLING AND REPORTING

May 17, 2017

5.0 ADDITIONAL SAMPLING AND REPORTING

Response phase sampling has been completed and was conducted to assist operations staff in determining additional excavation areas. Sample results outlined within this report are no longer representative of current site conditions as additional stained or impacted soil was removed and is no longer located at the incident site. Further sampling and reporting under Phase II of the response (remediation phase) will be conducted in accordance with the April 14, 2017, Remediation Workplan. The next full site soil sampling event is planned for May 30 through June 1, 2017, to characterize TPH concentrations and evaluate further remediation activities which may be required.

PHASE I RESPONSE SAMPLING AND ANALYSIS REPORT

References
May 17, 2017

6.0 References

Form 27: Remediation Workplan, Rangely C-4 Incident, Rangely, Colorado, April 14, 2017

Colorado Oil and Gas Conservation Commission. 900 Series rules, January 30, 2015

Colorado Department of Public Health and Environment. Emergency Petroleum Spill Waste Management Guidance, First Edition, January 2014

National Oceanic and Atmospheric Administration, 2013 Shoreline Assessment Manual, April

Stantec Standard Operating Procedure for Soil Sampling, ESPA-001, Most Recent Version

Stantec Standard Operating Procedure for Field Notebook, ESPA-011, Most Recent Version

Tables

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
RANGELY C-4 INCIDENT
RANGELY, COLORADO

Sample Location			RC4-SOURCE-TRUCK	RC4-HEL02-0.25	RC4-HEL03-0.25	RC4-HEL06-0.25	RC4-HEL08-0.25	RC4-HEL10-0.25	RC4-HER04-0.25	RC4-HER05-0.25	RC4-HER12-0.25	RC4-HER13-0.25	RC4-HER14-0.25	RC4-CLU07-0.25	RC4-CLU09-0.25	RC4-CLU09-0.25	RC4-CLU11-0.25	RC4-EX-15-0.25	RC4-EX-16-0.25	RC4-EX-17-0.25
Sample Date			6-Mar-17	9-Mar-17	9-Mar-17	10-Mar-17	10-Mar-17	11-Mar-17	9-Mar-17	9-Mar-17	12-Mar-17	12-Mar-17	12-Mar-17	10-Mar-17	10-Mar-17	10-Mar-17	11-Mar-17	18-Mar-17	18-Mar-17	19-Mar-17
Sample ID			RC4-SOURCE-TRUCK	RC4-HEL02-0.25	RC4-HEL03-0.25	RC4-HEL06-0.25	RC4-HEL08-0.25	RC4-HEL10-0.25	RC4-HER04-0.25	RC4-HER05-0.25	RC4-HER12-0.25	RC4-HER13-0.25	RC4-HER14-0.25	RC4-CLU07-0.25	RC4-CLU09-0.25	RC4-CLU09-0.25	RC4-CLU11-0.25	RC4-EX-15-0.25	RC4-EX-16-0.25	RC4-EX-17-0.25
Sample Depth				0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Relative Organic Vapor, with PID (ppmv-as-iso-b)				1.8	0.3	0.0	2.5	1.9	0.4	0.0	0.5	0.4	1.0	2317	635.9	--	1217	--	--	--
Electrical Conductivity, Field (ms/cm)				0.090	0.074	0.163	0.078	0.068	0.078	0.128	0.097	0.119	0.093	0.080	0.120	--	0.057	--	--	--
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			TALDEN	TALDEN	TALDEN	TALDEN	TALDEN	TALDEN	TALDEN	TALDEN	TALDEN	TALDEN	TALDEN	TALDEN	TALDEN	TALDEN	TALDEN	TALDEN	TALDEN	TALDEN
Laboratory Sample ID			280-94601-1	280-94682-1	280-94682-2	280-94768-1	280-94768-3	280-94768-5	280-94682-3	280-94682-4	280-94790-1	280-94790-2	280-94790-3	280-94768-2	280-94768-4	280-94768-7	280-94768-6	280-95013-1	280-95013-2	280-95013-3
	Units	Table 910-1 Limit ¹																		
General Chemistry																				
Electrical Conductivity, Lab	mmhos/cm	< 4 or 2x BG	7.7	0.42	0.55	0.38	0.84	0.48	0.29	0.51	0.39	0.29	0.23	0.38	0.53	0.47	0.32	7.0	4.0	4.9
Percent Moisture	%	--	10.6	12.1	14.9	19.2	14.2	7.2	15.0	21.0	20.0	24.0	16.8	18.7	23.6	22.7	17.7	4.5	13.7	9.6
Percent Solids	%	--	89.4	87.9	85.1	80.8	85.8	79.0	80.0	79.0	80.0	76.0	83.2	81.3	76.4	77.3	82.3	95.5	86.3	90.4
pH adj. to 25 deg C	S.U.	--	7.9 HF	8.5 HF	8.3 HF	8.4 HF	9.1 HF	9.5 HF	8.4 HF	8.1 HF	8.3 HF	8.5 HF	8.6 HF	8.5 HF	8.0 HF	8.2 HF	8.5 HF	8.0 HF	7.9 HF	8.0 HF
Sodium Adsorption Ratio (SAR)	none	< 12	0.80	2.8	4.2	3.1	9.1	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	1.2	1.5	6.8	1.5	5.1	2.0	7.0
Sodium	mg/kg	--	110	86	130	91	380	36	32	<10	39	12	29	87	130	250	130	680	210	660
Calcium	mg/kg	--	96	53	59	52	97	260	64	110	87	89	66	310	430	75	390	870	610	520
Magnesium	mg/kg	--	29	11	7.6	8.6	20	50	12	11	13	13	9.7	57	89	16	78	290	120	84
Temperature, Lab	deg C	--	20.8 HF	21.5 HF	21.2 HF	21.5 HF	21.3 HF	21.3 HF	21.9 HF	21.7 HF	24.3 HF	24.1 HF	24.1 HF	21.9 HF	22.1 HF	22.5 HF	22.2 HF	19.5 HF	19.7 HF	19.8 HF
Petroleum Hydrocarbons																				
GRO - Gasoline Range Organics (C6-C10)	mg/kg	500	2,700	<0.59	<0.47	<1.1	<1.4	<1.2	<0.56	<0.42	<1.3	0.45 J	<1.3	7,800	5,000	8,300	280	860	220	340
DRO - Diesel Range Organics (C10-C28)	mg/kg		9,200	4.2	2.5 J	1.5 J	2.9 J F2	7.6	5.5	2.5 J	1.6 J	3.7 J	1.8 J	20,000	24,000	18,000	7,100	22,000	7,900	12,000
DRO - Oil Range Organics (C20-C38)	mg/kg		4,100	6.5 J	5.6 J	<15	6.1 J	13	10 J	< 14	<15	<16	7.1 J	8,500	9,900	7,600	3,200	7,600 E	3,600 E	4,700 E
Metals																				
Arsenic ²	mg/kg	0.39	7.8	6.9	7.2	7.1	7.2	6.3	7.6	7.0	7.0 F2	6.7	6.4	5.7	5.9	6.8	6.4	7.6	7.2	7.6
Barium	mg/kg	15,000	240 B	310	120	130 B	120 B	120 B	<1.1	150	100	110	110	100 B	91 B	89 B	110 B	290 F1	970	150
Boron ¹	mg/kg	15	15	12.8 F2	14.8	13.8	11.8	10.8	19.1 B	17.8	12	10	8.4 J	10.8	10.8	9.4 B	9.0 B	14	14	12
Cadmium	mg/kg	70	0.51	0.38 J F2	0.39 J	0.22 J F2	0.21 J	0.17 J	<0.53	0.43 J	0.31 J	0.29 J	0.25 J	0.20 J	0.17 J	0.17 J	0.19 J	0.57	0.60	0.46
Calcium	mg/kg	--	28,000 B	22,000 B	22,000 B	23,000 B	17,000 B	<53	26,000 B	22,000 B	19,000 B	17,000 B	19,000 B	19,000 B	19,000 B	21,000 B	17,000 B	30,000 B	27,000 B	29,000 B
Chromium	mg/kg	--	-	14 B	17 B	15	12	0.063 J.B	19 B	13 B	11 B	9.3 B	12	12	13	11	18	18	16	16
Chromium, hex	mg/kg	23	7.3 J	3.8 J	3.2 J	5.8 J	7.3 F1	5.5	<5.8	3.0 J	6.7	6.0 J	6.1	5.8 J	6.2 J	5.8 J	4.6 J	2.2 J	3.4 J	2.6 J
Chromium, trivalent	mg/kg	120,000	11	10	14	9.2	6.7	6.5	<5.9	16	6.3	5.0 J	3.2 J	6.2	5.8 J	7.2	6.4	16	15	13
Copper	mg/kg	3,100	17 B	13 F2	14	13	13	10	<2.1	16	13	12	9.9	11	12	9.8	18	18	17	17
Lead	mg/kg	400	18	14 F2	15	15	14	12	<0.96	18	14 F2	13	12	12	12	13	12	20 F1	27	19
Magnesium	mg/kg	--	11,000 B	11,000 B	9,500 B	10,000 B	7,500 B	<21	12,000 B	9,300 B	8,000 B	7,000 B	8,600 B	8,500 B	9,600 B	7,700 B	12,000 F1.B	11,000 B	12,000 B	
Mercury	mg/kg	23	0.018 J	0.020 J F2.F1	0.018 J	0.024	0.013 J	0.018 J	0.013 J	0.028	0.025	0.023 J	0.018 J	0.017 J	0.012 J	0.017 J	0.0078 J	0.029	0.039	0.035
Nickel	mg/kg	1,600	18 B	13 F2	15	15	13	12	<4.3	17	15	14	12	11	13	12	19 F1	19	18	18
Selenium	mg/kg	390	1.7	0.86 J F2	1.1 J	<1.3 F2	<1.5	<1.5	<1.6	<1.7	<1.6 F2	<1.4	<1.3	<1.3	<1.5	<1.4	<1.3	1.6 F1	1.5 J	0.97 J
Silver	mg/kg	390	< 0.82	<1.0 F2	<0.85	<0.84 F2	<0.97	<0.98	<1.1	<1.1	<1.0 F2	<0.91 *	<0.86 *	<0.89	<1.0	<0.91	<0.87	<0.96	<1.0	<0.83
Sodium	mg/kg	--	840	250 J F2	290 J	250 J.B.F2	550 B	400 J.B	<530	140 J	180 J F2	130 J	130 J	200 J.B	250 J.B	270 J.B	130 J.B	960	330 J	570
Zinc	mg/kg	23,000	80	62	67	62	57	49	<3.2	77	66	60	57	51	49	54	50	77 F1	73	74
Semi - Volatile Organic Compounds																				
Acenaphthene	mg/kg	1,000	<0.22 F1	<0.0055	<0.0059	<0.0059	<0.0056	<0.0053	<0.0057	<0.0060	<0.0057	<0.0063	0.0066	<0.24	<0.26	<0.25	<0.12	<0.42	<0.23	<0.22
Acenaphthylene	mg/kg	1,000	<0.22 F1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	--	--
Anthracene	mg/kg	1,000	<0.22 F1	<0.0055	<0.0059	<0.0059	<0.0056	<0.0053	<0.0057	<0.0060	<0.0057	<0.0063	0.0017 J	<0.24	<0.26	<0.25	<0.12	<0.42	<0.23	<0.22
Benzo(a)anthracene	mg/kg	0.22	<0.22	0.0012 J	<0.0059	<0.0059	<0.0056	0.00096 J	<0.0057	0.0029 J	<0.0057	<0.0063	0.027 B	<0.24	<0.26	<0.25	<0.12	<0.42	<0.23	<0.22
Benzo(a)pyrene	mg/kg	0.022	<0.22 F1.F2	<0.0055	<0.0059	<0.0059	<0.0056	0.0014 J	<0.0057	<0.0060	<0.0057	<0.0063	0.048 B	<0.24	<0.26	<0.25	<0.12	<0.42	<0.23	<0.22
Benzo(b)fluoranthene	mg/kg	0.22	0.063 J F1.F2	<0.0055	<0.0059	<0.0059	<0.0056	0.0029 J	<0.0057	<0.0060	<0.0057	<0.0063	0.071 B	0.13 J	0.074 J	0.098 J	<0.12	<0.42	<0.23	0.053 J
Benzo(g,h)perylene	mg/kg	--	<0.22 F2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	--	--
Benzo(k)fluoranthene	mg/kg	2.2	<0.22	<0.0055	<0.0059	<0.0059	<0.0056	0.0014 J	<0.0057	<0.0060	<0.0057	<0.0063	0.026	<0.24	<0.26	<0.25	<0.12	<0.42	<0.23	<0.22
Chrysene	mg/kg	22	0.81	0.0012 J	<0.0059	<0.0059	<0.0056	0.0032 J	0.0011 J	0.0012 J	<0.0057	0.0018 J.B	0.072 B	1.5	1.0	1.2	0.23	1.5	0.45	0.73
Dibenz (a,h)anthracene	mg/kg	0.022	<0.22	<0.0055	<0.0059	<0.0059	<0.0056	<0.0053	<0.0057	<0.0060	<0.0057	<0.0063	0.0086	<0.24	<0.26	<0.25	<0.12	<0.42	<0.23	<0.22
Fluoranthene	mg/kg	1,000	<0.22	<0.0055	<0.0059	<0.0059	<0.0056	0.0021 J.B	<0.0057	<0.0060	<0.0057	<0.0063	0.14 B	<0.24	<0.26	<0.25	<0.12	<0.42	<0.23	<0.22
Fluorene	mg/kg	1,000	1.3	<0.0055	<0.0059	<0.0059	<0.0056	0.0013 J	<0.0057	<0.0060	<0.0057	<0.0063	0.0050 J	1.9	1.3	1.5	0.31	1.6	0.67	0.93
Indeno(1,2,3-cd)pyrene	mg/kg	0.22	<0.22	<0.0055	<0.0059	<0.0059	<0.0056	0.0023 J	<0.0057	<0.0060	<0.0057	<0.0063	0.037	<0.24	<0.26	<0.25	<0.12	<0.42	<0.23	<0.22
Methylnaphthalene, 1-	mg/kg	--	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	--	--
Methylnaphthalene, 2-	mg/kg	--	12																	

TABLE 2
SUMMARY OF TPH ANALYTICAL RESULTS IN SOIL
RANGELY C-4 INCIDENT
RANGELY, COLORADO

Sample ID	Sampled By	Description	Division/Area (per 4/14/17 Remediation Plan)	Date Collected	Latitude	Longitude	Visible Product in Sample	Visible Product in Vicinity of Sample	Headspace Screening (ppm)	Analytical Sample Results (GRO, mg/kg)	Analytical Sample Results (DRO, mg/kg)	Total TPH (mg/kg)
RC4-CLU-7	Stantec	centerline of drainage	2	3/10/2017	40.132968	-108.915992	Yes	Yes	2317	7800	20000	27800
RC4-CLU-9	Stantec	centerline of drainage	2	3/11/2017	40.13295	-108.915416	Yes	Yes	654	5000	24000	29000
RC4-CLU-11	Stantec	centerline of drainage	2	3/11/2017	40.133269	-108.913718	Yes	Yes	1217	280	7100	7380
RC4-EX-15	Eggert/CTEH	confirmation samples from excavation	1	3/18/2017	40.131031	-108.920174	No	No	NM	860	19000	19860
RC4-EX-16	Eggert/CTEH	confirmation samples from excavation	1	3/18/2017	40.131143	-108.920229	No	No	NM	270	7800	8070
RC4-EX-17	Eggert/CTEH	confirmation samples from excavation	1	3/19/2017	40.131358	-108.91973	No	No	NM	400	11000	11400
RC4-SC-18	Eggert/CTEH	screening samples	4	3/20/2017	40.131209	-108.899186	No	Yes	122	230	15000	15230
RC4-SC-19	Eggert/CTEH	screening samples	4	3/20/2017	40.131267	-108.899535	Yes	Yes	165	590	44000	44590
RC4-SC-20	Eggert/CTEH	screening samples	4	3/20/2017	40.131291	-108.899656	No	No	125	140	2600	2740
RC4-SC-21	Eggert/CTEH	screening samples	4	3/20/2017	40.131202	-108.900491	No	No	53	ND (77)	670	670
RC4-SC-22	Eggert/CTEH	screening samples	4	3/20/2017	40.131158	-108.901228	No	No	46	34	940	974
RC4-SC-23	Eggert/CTEH	screening samples	4	3/20/2017	40.131556	-108.901654	No	No	11	ND (74)	160	160
RC4-SC-24	Eggert/CTEH	screening samples	4	3/20/2017	40.1317	-108.9022	No	No	1	ND (75)	5.3	5
RC4-SC-25	Eggert/CTEH	screening samples	4	3/20/2017	40.131394	-108.902627	No	No	36	27	770	797
RC4-SC-26	Eggert/CTEH	screening samples	4	3/20/2017	40.1317	-108.9031	No	No	1	ND (69)	7	7
RC4-SC-27	Eggert/CTEH	screening samples	4	3/20/2017	40.131938	-108.903647	No	Yes	56	ND (77)	18	18
RC4-SC-28	Eggert/CTEH	screening samples	4	3/20/2017	40.132286	-108.904163	Yes	Yes	192	46	2500	2546
RC4-SC-29	Eggert/CTEH	screening samples	4	3/20/2017	40.1327	-108.9045	No	Yes	27	ND (170)	600	600
RC4-SC-30	Eggert/CTEH	screening samples	4	3/21/2017	40.132863	-108.905567	No	No	2	ND (1.5)	6.6	7
RC4-SC-31	Eggert/CTEH	screening samples	4	3/21/2017	40.133111	-108.906415	No	No	2	4.4	44	48
RC4-SC-32	Eggert/CTEH	screening samples	3	3/21/2017	40.133573	-108.912806	Yes	Yes	270	1300	23000	24300
RC4-SC-33	Eggert/CTEH	screening samples	3	3/21/2017	40.134135	-108.911534	Yes (light staining)	Yes	26	5.9	260	266
RC4-SC-34	Eggert/CTEH	screening samples	4	3/21/2017	40.133674	-108.90899	No	Yes	36	11	400	411
RC4-SC-35	Eggert/CTEH	screening samples	4	3/21/2017	40.133056	-108.907741	No	No	4	2.6	160	163
RC4-SC-36	M.Stauthamer	homogenized screening samples 12"	4	3/22/2017	40.131249	-108.89961	No	Yes	NM	4.3	170	174
RC4-SC-37	M.Stauthamer	homogenized screening samples 12"	4	3/22/2017	40.131065	-108.898729	No	Yes	NM	27	220	247
RC4-SC-38	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13115772	-108.920198	NA	NA	NM	11	750*	761
RC4-SC-39	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13119642	-108.920201	NA	NA	NM	5.8	1600*	1606
RC4-SC-40	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13119185	-108.9201603	NA	NA	NM	550	6000*	6550
RC4-SC-41	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13115395	-108.9201093	NA	NA	NM	2000	42000	44000
RC4-SC-42	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13110326	-108.9201203	NA	NA	NM	420	2100*	2520
RC4-SC-43	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13117843	-108.9200643	NA	NA	NM	22	1300*	1322
RC4-SC-44	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13116205	-108.9199962	NA	NA	NM	140	7000*	7140
RC4-SC-45	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13119765	-108.9199251	NA	NA	NM	130	2300*	2430
RC4-SC-46	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13123407	-108.9199522	NA	NA	NM	51	2100*	2151

TABLE 2
SUMMARY OF TPH ANALYTICAL RESULTS IN SOIL
RANGELY C-4 INCIDENT
RANGELY, COLORADO

Sample ID	Sampled By	Description	Division/Area (per 4/14/17 Remediation Plan)	Date Collected	Latitude	Longitude	Visible Product in Sample	Visible Product in Vicinity of Sample	Headspace Screening (ppm)	Analytical Sample Results (GRO, mg/kg)	Analytical Sample Results (DRO, mg/kg)	Total TPH (mg/kg)
RC4-SC-47	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13121829	-108.9199033	NA	NA	NM	1500	5500*	7000
RC4-SC-48	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13123025	-108.9198561	NA	NA	NM	44	2700*	2744
RC4-SC-49	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13126301	-108.9198197	NA	NA	NM	170	7000*	7170
RC4-SC-50	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13127099	-108.9197584	NA	NA	NM	680	14000	14680
RC4-SC-51	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13127100	-108.9197402	NA	NA	NM	980	16000	16980
RC4-SC-52	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13125562	-108.9196955	NA	NA	NM	ND (1.4)	160	160
RC4-SC-53	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13128704	-108.9196888	NA	NA	NM	160	4600	4760
RC4-SC-54	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13128814	-108.9197029	NA	NA	NM	9.7	5700	5710
RC4-SC-55	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13141971	-108.9195732	NA	NA	NM	140	40000	40140
RC4-SC-56	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13144994	-108.9194756	NA	NA	NM	18	530	548
RC4-SC-57	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13149225	-108.9193363	NA	NA	NM	370	1400	1770
RC4-SC-58	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13155788	-108.9191833	NA	NA	NM	15	110	125
RC4-SC-59	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13155893	-108.9190016	NA	NA	NM	19	350	369
RC4-SC-60	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13160684	-108.9187985	NA	NA	NM	98	2800	2898
RC4-SC-61	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13168676	-108.9186352	NA	NA	NM	460	4500	4960
RC4-SC-62	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13166933	-108.9184531	NA	NA	NM	33	780	813
RC4-SC-63	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13171842	-108.9182517	NA	NA	NM	14	3600	3614
RC4-SC-64	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13178792	-108.9179793	NA	NA	NM	2.2	320	322
RC4-SC-65	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13198951	-108.9176244	NA	NA	NM	ND (1.5)	20	20
RC4-SC-66	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13212917	-108.9174771	NA	NA	NM	2.5	1100	1103
RC4-SC-67	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13220735	-108.9171491	NA	NA	NM	27	390	417
RC4-SC-68	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13233440	-108.9169834	NA	NA	NM	ND (1.4)	100	100
RC4-SC-69	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13242075	-108.9168435	NA	NA	NM	0.86 J	59 F1	60
RC4-SC-70	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13257064	-108.9167371	NA	NA	NM	0.45 J	12	12
RC4-SC-DUP1	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017			NA	NA	NM	ND (1.5)	6.9	7
RC4-SC-71	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13270029	-108.9166054	NA	NA	NM	280	1100	1380
RC4-SC-72	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13280229	-108.9164232	NA	NA	NM	14	140	154
RC4-SC-73	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13280795	-108.9168653	NA	NA	NM	36	1000	1036
RC4-SC-74	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13280354	-108.9167925	NA	NA	NM	270	3200	3470
RC4-SC-75	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13285152	-108.9167263	NA	NA	NM	36	330 F2	366
RC4-SC-76	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13289166	-108.9166932	NA	NA	NM	70	720	790
RC4-SC-DUP2	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017			NA	NA	NM	97	780	877
RC4-SC-77	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13292371	-108.9166645	NA	NA	NM	20	94	114
RC4-SC-78	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13293668	-108.9165731	NA	NA	NM	6.3	80	86
RC4-SC-79	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13290222	-108.9165763	NA	NA	NM	490	800	1290

TABLE 2
SUMMARY OF TPH ANALYTICAL RESULTS IN SOIL
RANGELY C-4 INCIDENT
RANGELY, COLORADO

Sample ID	Sampled By	Description	Division/Area (per 4/14/17 Remediation Plan)	Date Collected	Latitude	Longitude	Visible Product in Sample	Visible Product in Vicinity of Sample	Headspace Screening (ppm)	Analytical Sample Results (GRO, mg/kg)	Analytical Sample Results (DRO, mg/kg)	Total TPH (mg/kg)
RC4-SC-80	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017	40.13294899	-108.9164299	NA	NA	NM	0.92 J	45	46
RC4-SC-DUP3	Stantec(Stauthamer/Jones)	screening samples	1	3/30/2017			NA	NA	NM	0.50 J	170	171
RC4-SC-81	Stantec(Stauthamer/Jones)	screening samples	2	3/30/2017	40.13293684	-108.9160956	NA	NA	NM	650	8900	9550
RC4-SC-82	Stantec(Stauthamer/Jones)	screening samples	2	3/30/2017	40.13297629	-108.9159934	NA	NA	NM	4.7	840	845
RC4-SC-83	Stantec(Stauthamer/Jones)	screening samples	2	3/30/2017	40.13299816	-108.9158969	NA	NA	NM	16	1800 B	1816
RC4-SC-84	Stantec(Stauthamer/Jones)	screening samples	2	3/30/2017	40.13301085	-108.915735	NA	NA	NM	14	1800 B	1814
RC4-SC-85	Stantec(Stauthamer/Jones)	screening samples	2	3/30/2017	40.13298651	-108.9155423	NA	NA	NM	3.3	450 B	453
RC4-SC-86	Stantec(Stauthamer/Jones)	screening samples	2	3/30/2017	40.13296355	-108.9154023	NA	NA	NM	89	2700 B	2789
RC4-SC-87	Stantec(Stauthamer/Jones)	screening samples	2	3/30/2017	40.13292187	-108.915306	NA	NA	NM	32	2600 B	2632
RC4-SC-DUP4	Stantec(Stauthamer/Jones)	screening samples	2	3/30/2017			NA	NA	NM	34	3100 B	3134
RC4-SC-88	Stantec(Stauthamer/Jones)	screening samples	2	3/30/2017	40.13294206	-108.9151284	NA	NA	NM	450	1200 B	1650
RC4-SC-89	Stantec(Stauthamer/Jones)	screening samples	2	3/30/2017	40.13295485	-108.9148686	NA	NA	NM	91	6100 B	6191
RC4-SC-90	Stantec(Stauthamer/Jones)	screening samples	2	3/30/2017	40.13300722	-108.9146238	NA	NA	NM	400	700 B	1100
RC4-SC-91	Stantec(Stauthamer/Jones)	screening samples	2	3/30/2017	40.13294953	-108.9143687	NA	NA	NM	120	1100 B	1220
RC4-SC-92	Stantec(Stauthamer/Jones)	screening samples	2	3/30/2017	40.13300452	-108.9142437	NA	NA	NM	32 F2	1100 F2 B	1132
RC4-SC-93	Stantec(Stauthamer/Jones)	screening samples	2	3/30/2017	40.13316154	-108.9138486	NA	NA	NM	210	5400 B	5610
RC4-SC-94	Stantec(Stauthamer/Jones)	screening samples	2	3/30/2017	40.13326456	-108.9137489	NA	NA	NM	1.1 J	2700 B	2701
RC4-SC-95	Stantec(Stauthamer/Jones)	screening samples	2	3/30/2017	40.13327646	-108.9137031	NA	NA	NM	19	1900 B	1919
RC4-SC-96	Stantec(Stauthamer/Jones)	screening samples	2	3/30/2017	40.13327592	-108.913608	NA	NA	NM	1.5	2000 B	2002
RC4-SC-DUP5	Stantec(Stauthamer/Jones)	screening samples	2	3/30/2017			NA	NA	NM	16	1800 B	1816
RC4-SC-97	Stantec(Stauthamer/Jones)	screening samples	2	3/30/2017	40.13325262	-108.9135491	NA	NA	NM	140 F2	2500 B	2640
RC4-SC-98	Stantec(Stauthamer/Jones)	screening samples	2	3/30/2017	40.13313798	-108.9132972	NA	NA	NM	92	1100 B	1192
RC4-SC-99	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017	40.13351578	-108.9128362	NA	NA	NM	88	440 B	528
RC4-SC-100	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017	40.13352778	-108.9127868	NA	NA	NM	71	580 B	651
RC4-SC-101	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017	40.13355411	-108.9127373	NA	NA	NM	420	280	700
RC4-SC-102	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017	40.13356208	-108.9126956	NA	NA	NM	190	840	1030
RC4-SC-103	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017	40.13363559	-108.9125238	NA	NA	NM	27	1200	1227
RC4-SC-104	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017	40.13367875	-108.912515	NA	NA	NM	23	740	763
RC4-SC-105	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017	40.13372155	-108.9124864	NA	NA	NM	26	2200	2226
RC4-SC-106	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017	40.13372953	-108.912411	NA	NA	NM	32	950	982
RC4-SC-DUP6	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017			NA	NA	NM	28 F2	500	528
RC4-SC-107	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017	40.13379113	-108.9123146	NA	NA	NM	6.9	270	277
RC4-SC-108	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017	40.13391297	-108.9123077	NA	NA	NM	26	740	766
RC4-SC-109	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017	40.13401860	-108.9122965	NA	NA	NM	160	1600	1760
RC4-SC-110	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017	40.13403416	-108.9122817	NA	NA	NM	480	7600	8080

TABLE 2
SUMMARY OF TPH ANALYTICAL RESULTS IN SOIL
RANGELY C-4 INCIDENT
RANGELY, COLORADO

Sample ID	Sampled By	Description	Division/Area (per 4/14/17 Remediation Plan)	Date Collected	Latitude	Longitude	Visible Product in Sample	Visible Product in Vicinty of Sample	Headspace Screening (ppm)	Analytical Sample Results (GRO, mg/kg)	Analytical Sample Results (DRO, mg/kg)	Total TPH (mg/kg)
RC4-SC-111	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017	40.13402878	-108.9122599	NA	NA	NM	1900	12000	<div><div></div></div> 13900
RC4-SC-112	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017	40.13405288	-108.912054	NA	NA	NM	16	320	<div><div></div></div> 336
RC4-SC-113	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017	40.13408292	-108.9119752	NA	NA	NM	7.2	150	<div><div></div></div> 157
RC4-SC-114	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017	40.13414203	-108.9119238	NA	NA	NM	74	400	<div><div></div></div> 474
RC4-SC-115	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017	40.13410098	-108.9116847	NA	NA	NM	5.3	91	<div><div></div></div> 96
RC4-SC-DUP7	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017			NA	NA	NM	7.1	100	<div><div></div></div> 107
RC4-SC-116	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017	40.13412157	-108.9114858	NA	NA	NM	3.5 F1	52 F1	<div><div></div></div> 56
RC4-SC-117	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017	40.13417888	-108.9113188	NA	NA	NM	3.4	53	<div><div></div></div> 56
RC4-SC-118	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017	40.13428029	-108.9111883	NA	NA	NM	28	8000	<div><div></div></div> 8028
RC4-SC-119	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017	40.13430337	-108.9110413	NA	NA	NM	3.4	150	<div><div></div></div> 153
RC4-SC-120	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017	40.13420600	-108.9107574	NA	NA	NM	69	2900	<div><div></div></div> 2969
RC4-SC-121	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017	40.13418681	-108.9106519	NA	NA	NM	840	9800	<div><div></div></div> 10640
RC4-SC-122	Stantec(Stauthamer/Jones)	screening samples	3	3/30/2017	40.13415651	-108.9105702	NA	NA	NM	760	9100	<div><div></div></div> 9860
RC4-SC-123	Stantec(Stauthamer/Fendler)	screening samples	4	4/4/2017	40.13394107	-108.9099972	NA	NA	NM	5.5	62	<div><div></div></div> 68
RC4-SC-124	Stantec(Stauthamer/Fendler)	screening samples	4	4/4/2017	40.13372096	-108.9095146	NA	NA	NM	1.8	8	<div><div></div></div> 10
RC4-SC-125	Stantec(Stauthamer/Fendler)	screening samples	4	4/4/2017	40.13368033	-108.9086433	NA	NA	NM	19	43	<div><div></div></div> 62
RC4-SC-126	Stantec(Stauthamer/Fendler)	screening samples	4	4/4/2017	40.13321814	-108.9080873	NA	NA	NM	33	52	<div><div></div></div> 85
RC4-SC-127	Stantec(Stauthamer/Fendler)	screening samples	4	4/4/2017	40.13308178	-108.9073585	NA	NA	NM	8.2	6.4	<div><div></div></div> 15
RC4-SC-128	Stantec(Stauthamer/Fendler)	screening samples	4	4/4/2017	40.13294178	-108.9066876	NA	NA	NM	51	300	<div><div></div></div> 351
RC4-SC-DUP8	Stantec(Stauthamer/Fendler)	screening samples	4	4/4/2017			NA	NA	NM	93	470	<div><div></div></div> 563
RC4-SC-129	Stantec(Stauthamer/Fendler)	screening samples	4	4/4/2017	40.13302365	-108.9060154	NA	NA	NM	60 F2	370 F2	<div><div></div></div> 430
RC4-SC-130	Stantec(Stauthamer/Fendler)	screening samples	4	4/4/2017	40.13284847	-108.9051904	NA	NA	NM	1.3 J	33	<div><div></div></div> 34
RC4-SC-131	Stantec(Stauthamer/Fendler)	screening samples	4	4/4/2017	40.13262609	-108.9044607	NA	NA	NM	1.2 J	160	<div><div></div></div> 161
RC4-SC-132	Stantec(Stauthamer/Fendler)	screening samples	4	4/4/2017	40.13229645	-108.9039114	NA	NA	NM	0.40 J	190	<div><div></div></div> 190
RC4-SC-133	Stantec(Stauthamer/Fendler)	screening samples	4	4/4/2017	40.13215396	-108.9037163	NA	NA	NM	8.9	61	<div><div></div></div> 70
RC4-SC-134	Stantec(Stauthamer/Fendler)	screening samples	4	4/4/2017	40.13184754	-108.903699	NA	NA	NM	5.6	350	<div><div></div></div> 356
RC4-SC-135	Stantec(Stauthamer/Fendler)	screening samples	4	4/4/2017	40.13157188	-108.902793	NA	NA	NM	4.1	22	<div><div></div></div> 26
RC4-SC-136	Stantec(Stauthamer/Fendler)	screening samples	4	4/4/2017	40.13140262	-108.902532	NA	NA	NM	ND (1.4)	14	<div><div></div></div> 14
RC4-SC-137	Stantec (Stauthamer/Foye)	screening samples - Siphon V basin	5	4/11/2017	40.130219	-108.892122	NA	NA	NM	ND (1.4)	13 F1	<div><div></div></div> 13
RC4-SC-138	Stantec (Stauthamer/Foye)	screening samples - Siphon V basin	5	4/11/2017	40.130216	-108.892007	NA	NA	NM	ND (1.5)	11	<div><div></div></div> 11
RC4-SC-139	Stantec (Stauthamer/Foye)	screening samples - Siphon V basin	5	4/11/2017	40.130173	-108.891964	NA	NA	NM	2.3	5.8	<div><div></div></div> 8
RC4-SC-140	Stantec (Stauthamer/Foye)	screening samples - Siphon V basin	5	4/11/2017	40.130208	-108.891954	NA	NA	NM	3.3	9.2	<div><div></div></div> 13
RC4-SC-141	Stantec (Stauthamer/Foye)	screening samples - Siphon V basin	5	4/11/2017	40.130237	-108.891936	NA	NA	NM	ND (1.5)	33	<div><div></div></div> 33
RC4-SC-142	Stantec (Stauthamer/Foye)	screening samples - Siphon V basin	5	4/11/2017	40.130202	-108.891916	NA	NA	NM	ND (1.4)	27	<div><div></div></div> 27
RC4-SC-143	Stantec (Stauthamer/Foye)	screening samples - Siphon V basin	5	4/11/2017	40.130264	-108.891923	NA	NA	NM	51	320	<div><div></div></div> 371

TABLE 2
SUMMARY OF TPH ANALYTICAL RESULTS IN SOIL
RANGELY C-4 INCIDENT
RANGELY, COLORADO

Sample ID	Sampled By	Description	Division/Area (per 4/14/17 Remediation Plan)	Date Collected	Latitude	Longitude	Visible Product in Sample	Visible Product in Vicinty of Sample	Headspace Screening (ppm)	Analytical Sample Results (GRO, mg/kg)	Analytical Sample Results (DRO, mg/kg)	Total TPH (mg/kg)
RC4-SC-144	Stantec (Stauthamer/Foye)	screening samples - Siphon V basin	5	4/11/2017	40.130233	-108.891863	NA	NA	NM	ND (1.4)	110	<div></div> 110
RC4-SC-145	Stantec (Stauthamer/Foye)	screening samples - Siphon V basin	5	4/11/2017	40.130193	-108.891871	NA	NA	NM	ND (1.4)	100	<div></div> 100
RC4-SC-146	Stantec (Stauthamer/Foye)	screening samples - Siphon V basin	5	4/11/2017	40.130160	-108.891899	NA	NA	NM	ND (1.5)	70	<div></div> 70
RC4-SC-147	Stantec (Stauthamer/Foye)	screening samples - Siphon V basin	5	4/11/2017	40.130146	-108.891951	NA	NA	NM	ND (1.3)	3.2 J	<div></div> 3

Notes:

ppm

GRO

DRO

Total TPH

mg/kg

15.2

ND

NA

*

B

J

F1

F2

parts per million

Gasoline Range Organics (C6- C10)

Diesel Range Organics (C10-C28)

Total Petroluem Hydrocarbons (values rounded to nearest integer for better display of data).

milligram per kilogram

Concentration was detected.

Analyte was not detected at a concentration greater than the laboratory reportable detection limit.

Parameter not analyzed / not available.

LCS or LCSD is outside the acceptable limits

Indicates analyte was found in associated blank, as well as in the sample.

The reported result is an estimated value.

MS and/or MSD recovery is outside acceptance limits

MS/MSD RPD exceeds control limits

Total TPH > 5000 mg/kg

Total TPH > 500 and <= 5000 mg/kg

Total TPH <= 500

TABLE 3
SUMMARY OF BACKGROUND SAMPLE SOIL ANALYTICAL RESULTS
RANGELY C-4 INCIDENT
RANGELY, COLORADO

Sample Location Sample Date Sample ID Sampling Company Laboratory Laboratory Sample ID			RC4-BA-01 11-Apr-17 RC4-BA-1 STANTEC TALDEN 280-95791-1	RC4-BA-02 11-Apr-17 RC4-BA-02 STANTEC TALDEN 280-95791-2	RC4-BA-DUP01 11-Apr-17 RC4-BA-DUP01 STANTEC TALDEN 280-95791-11	RC4-BA-03 11-Apr-17 RC4-BA-03 STANTEC TALDEN 280-95791-3	RC4-BA-04 11-Apr-17 RC4-BA-04 STANTEC TALDEN 280-95791-4	RC4-BA-05 11-Apr-17 RC4-BA-05 STANTEC TALDEN 280-95791-5	RC4-BA-06 11-Apr-17 RC4-BA-06 STANTEC TALDEN 280-95791-6	RC4-BA-07 11-Apr-17 RC4-BA-07 STANTEC TALDEN 280-95791-7	RC4-BA-08 11-Apr-17 RC4-BA-08 STANTEC TALDEN 280-95791-8	RC4-BA-09 11-Apr-17 RC4-BA-09 STANTEC TALDEN 280-95791-9	RC4-BA-10 11-Apr-17 RC4-BA-10 STANTEC TALDEN 280-95791-10
	Units	Table 910-1 Limit ¹											
General Chemistry													
Electrical Conductivity, Lab	mmhos/cm	< 4 or 2x BG	11	0.57	0.59	0.57	1.8	0.68	0.61	0.72	1.7	1.2	5.2
Percent Moisture	%	--	21.1	10.6	10.4	14.8	4.5	20.6	18.9	26.7	12.1	17.2	12.0
Percent Solids	%	--	78.9	89.4	89.6	85.2	95.5	79.4	81.1	73.3	87.9	82.8	88.0
pH adj. to 25 deg C	S.U.	--	7.9 HF	7.9 HF	8.0 HF	8.3 HF	8.7 HF	8.2 HF	8.1 HF	7.9 HF	8.8 HF	9.3 HF	7.9 HF
Sodium Adsorption Ratio (SAR)	none	< 12	19	<1.2	<1.2	<1.2	20	<1.2	<1.2	<1.2	14	16	22
Sodium	mg/kg	--	2,900	52	62	13	670	38	53	19	640	470	2,700
Calcium	mg/kg	--	1,200	120	200	65	67	100	130	87	77	30	500
Magnesium	mg/kg	--	330	22	36	10	11	15	25	15	45	20	350
Temperature, Lab	deg C	--	22.1 HF	22.1 HF	22.4 HF	22.3 HF	22.4 HF	22.4 HF	22.4 HF	22.2 HF	22.3 HF	22.0 HF	22.1 HF
Petroleum Hydrocarbons													
GRO - Gasoline Range Organics (C6-C10)	mg/kg	500	<1.3	<1.3	<1.2	<1.2	<1.2	<1.3	0.74 J	<1.4	<1.1	6.1	0.62 J
DRO - Diesel Range Organics (C10-C28)	mg/kg		2.9 J	440	580	46	4.8	39	15	34	77	12	38
Metals													
Arsenic ²	mg/kg	0.39	6.9	9.2	9.1	7.6	8.0	6.8	7.1	6.0	7.2	6.8	6.7
Barium	mg/kg	15,000	440 F1	220	200	220	220	200	140	210	190	130	130
Boron ³	mg/kg	--	15	12	10 J	14	14	14	13	19	11	12	12
Cadmium	mg/kg	70	0.35 J	0.37 J	0.36 J	0.47 J	0.43 J	0.40 J	0.35 J	0.41 J	0.29 J	0.29 J	0.30 J
Calcium	mg/kg	--	22,000 B	25,000 B	25,000 B	23,000 B	24,000 B	22,000 B	22,000 B	23,000 B	23,000 B	23,000 B	25,000 B
Chromium	mg/kg	--	16	14	13	18	14	16	17	23	12	13	13
Chromium, hex	mg/kg	23	<6.1	<5.6	<5.5	<57	<5.1	<6.2	<6.1	<6.7	<5.7	<5.9	<5.5
Chromium, trivalent	mg/kg	120,000	16	14	13	18	14	16	17	23	12	13	13
Copper	mg/kg	3,100	16 B	14 B	14 B	18 B	15 B	20 B	16 B	18 B	14 B	14 B	14 B
Lead	mg/kg	400	18	15	15	18	16	16	16	19	14	15	15
Magnesium	mg/kg	--	12,000 B	10,000 B	11,000 B	12,000 B	12,000 B	11,000 B	11,000 B	12,000 B	11,000 B	14,000 B	14,000 B
Mercury	mg/kg	23	0.024	0.023	0.024	0.034	0.019	0.090	0.022 J	0.065	0.024	0.020 J	0.020 J
Nickel	mg/kg	1,600	17	16	16	20	16	18	17	21	16	15	15
Selenium	mg/kg	390	<1.9	0.97 J	<1.6	1.3 J	<1.3	0.79 J	<1.9	<2.0	0.97 J	<1.5	<1.7
Silver	mg/kg	390	<1.3	<1.0	<1.1	<1.1	<0.90	<0.84	<1.2	<1.3	<0.88	<0.99	<1.1
Sodium	mg/kg	--	2,000	360 J	350 J	240 J	870	330 J	240 J	280 J	800	790	1,900
Zinc	mg/kg	23,000	76	130	110	90	75	100	75	94	72	71	71
Semi - Volatile Organic Compounds													
Acenaphthene	mg/kg	1,000	0.0013 J	<0.11	<0.11	<0.0058	<0.0052	0.0012 J	<0.0061	<0.0067	<0.0056	<0.0058	<0.0054
Anthracene	mg/kg	1,000	0.0015 J	<0.11	<0.11	<0.0058	0.0023 J	0.0028 J	<0.0061	<0.0067	<0.0056	<0.0058	<0.0054
Benzo(a)anthracene	mg/kg	0.22	0.0011 J	<0.11	<0.11	<0.0058	<0.0052	0.016	<0.0061	<0.0067	<0.0056	<0.0058	<0.0054
Benzo(a)pyrene	mg/kg	0.022	<0.0063	<0.11	<0.11	<0.0058	<0.0052	0.028	<0.0061	<0.0067	<0.0056	<0.0058	<0.0054
Benzo(b)fluoranthene	mg/kg	0.22	0.0018 J	<0.11	<0.11	0.0039 J	0.0025 J	0.031	0.0025 J	0.0036 J	0.0027 J	0.0032 J	0.0028 J
Benzo(k)fluoranthene	mg/kg	2.2	<0.0063	<0.11	<0.11	<0.0058	<0.0052	0.0090	<0.0061	<0.0067	<0.0056	<0.0058	<0.0054
Chrysene	mg/kg	22	0.0027 J	<0.11	<0.11	<0.0058	0.0037 J	0.035	0.0026 J	<0.0067	0.010	0.0057 J	0.0060
Dibenz (a,h)anthracene	mg/kg	0.022	<0.0063	<0.11	<0.11	<0.0058	<0.0052	0.0043 J	<0.0061	<0.0067	0.0034 J	<0.0058	<0.0054
Fluoranthene	mg/kg	1,000	0.0052 J	<0.11	<0.11	0.0014 J	0.0022 J	0.043	0.0016 J	0.0020 J	0.0020 J	0.0023 J	0.0025 J
Fluorene	mg/kg	1,000	0.0013 J	<0.11	<0.11	<0.0058	<0.0052	0.0011 J	<0.0061	<0.0067	<0.0056	0.00073 J	<0.0054
Indeno(1,2,3-cd)pyrene	mg/kg	0.22	<0.0063	<0.11	<0.11	0.0017 J	<0.0052	0.018	<0.0061	<0.0067	0.0017 J	0.0021 J	<0.0054
Naphthalene	mg/kg	23	0.0024 J	<0.11	<0.11	0.0020 J	<0.0052	0.0028 J	0.0013 J	0.0034 J	0.0014 J	0.0036 J	0.0016 J
Pyrene	mg/kg	1,000	0.0038 J	<0.11	<0.11	0.0014 J	0.0017 J	0.037	0.0018 J	0.0025 J	0.0031 J	0.0024 J	0.0028 J

TABLE 3
SUMMARY OF BACKGROUND SAMPLE SOIL ANALYTICAL RESULTS
RANGELY C-4 INCIDENT
RANGELY, COLORADO

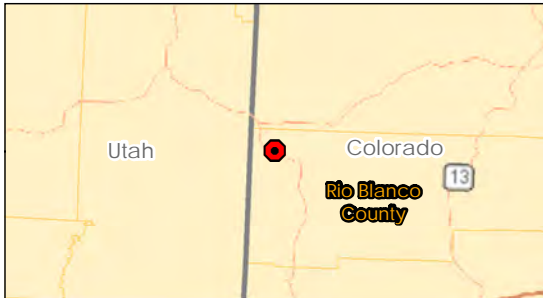
Sample Location Sample Date Sample ID Sampling Company Laboratory Laboratory Sample ID			RC4-BA-01 11-Apr-17 RC4-BA-1 STANTEC TALDEN 280-95791-1	RC4-BA-02 11-Apr-17 RC4-BA-02 STANTEC TALDEN 280-95791-2	RC4-BA-DUP01 11-Apr-17 RC4-BA-DUP01 STANTEC TALDEN 280-95791-11	RC4-BA-03 11-Apr-17 RC4-BA-03 STANTEC TALDEN 280-95791-3	RC4-BA-04 11-Apr-17 RC4-BA-04 STANTEC TALDEN 280-95791-4	RC4-BA-05 11-Apr-17 RC4-BA-05 STANTEC TALDEN 280-95791-5	RC4-BA-06 11-Apr-17 RC4-BA-06 STANTEC TALDEN 280-95791-6	RC4-BA-07 11-Apr-17 RC4-BA-07 STANTEC TALDEN 280-95791-7	RC4-BA-08 11-Apr-17 RC4-BA-08 STANTEC TALDEN 280-95791-8	RC4-BA-09 11-Apr-17 RC4-BA-09 STANTEC TALDEN 280-95791-9	RC4-BA-10 11-Apr-17 RC4-BA-10 STANTEC TALDEN 280-95791-10
	Units	Table 910-1 Limit ¹											
Volatile Organic Compounds													
Benzene	mg/kg	0.17	0.0025 J F1 F2	0.0023 J	0.0019 J	0.0019 J	0.0026 J	0.0026 J	0.0016 J	0.0023 J	0.0019 J	0.0030 J	0.0027 J
Ethylbenzene	mg/kg	100	<0.0057 F1 F2	<0.0053	<0.0052	<0.0052	<0.0049	<0.0053	<0.0051	<0.0063	<0.0048	0.00074 J	<0.0053
Toluene	mg/kg	85	0.0031 J F1 F2	0.0031 J	0.0027 J	0.0020 J	0.0033 J	0.0030 J	0.0019 J	0.0027 J	0.0026 J	0.0044 J	0.0032 J
Xylenes, Total	mg/kg	175	<0.0057	0.0015 J	0.0011 J	<0.0052	0.0013 J	<0.0053	<0.0051	<0.0063	0.0011 J	0.0030 J	0.0013 J

Notes:




ppmv-as-iso-b
ms/cm
mmhos/cm
%
S.U
deg C
mg/kg
mg/l
15.2
<0.03
-
>
B
E
J
F1
F2
HF
1
2
3

parts per million volume as isobutylene
milliSiemens per centimeter
millimhos per centimeter
percent
standard unit
degrees Celsius
milligram per kilogram
milligram per liter
Concentration was detected.
Analyte was not detected at a concentration greater than the laboratory reportable detection limit.
Parameter not analyzed / not available.
Greater than.
Indicates analyte was found in associated blank, as well as in the sample.
Result exceeded calibration range.
The reported result is an estimated value.
MS and/or MSD recovery is outside acceptance limits
MS/MSD RPD exceeds control limits
Field parameter with a holding time of 15 minutes. Test Performed by laboratory at client's request.
Concentrations for the Colorado Oil and Gas Conservation Comission (COGCC) Table 910-1 are taken from the Colorado Department of Public Health and the Environment, Hazardous Materials and Waste Management Division (CDPHE-HMWMD) Table 1 Colorado Soil Evaluation Values (December 2007)
Consideration shall be given to background levels in native soils and ground water.
Pursuant to Rule 910.b.(3).(C) and consistent with its prior practice, the COGCC typically will not require operators to sample for Hot Water Soluble Boron in soils. The current reference to Hot Water Soluble Boron in Table 910-1 is an artifact from the previous version of the Table. The Commission amended the threshold concentrations for metals in soils in December 2008 to conform them to the CDPHE-HMWMD's Table 1 Colorado Soil Evaluation Values (December 2007) (<http://www.cdphe.state.co.us/hm/csev.pdf>) (CSEV).

Figures



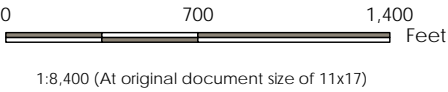
Legend

-  Spill Location
-  Spill Pathway
-  Operational Divisions

Notes

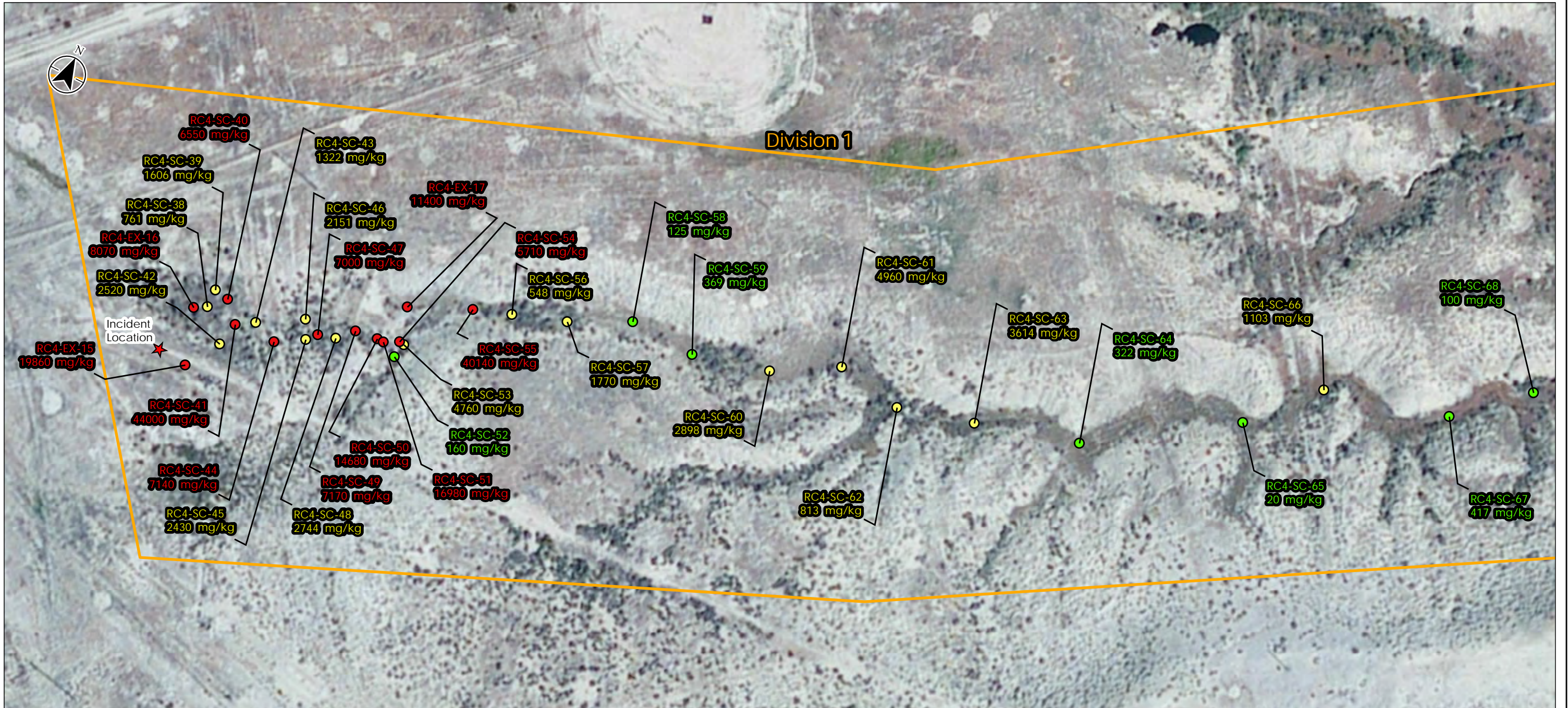
1. Coordinate System: NAD 1983 StatePlane Colorado North FIPS 0501 Feet
2. Service Layer Credits: Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Project Location	
Near Rangely	
Rio Blanco County, Colorado	
Client/Project	
Rangely C-4 Spill - Confidential	
Figure No.	
1	
Title	

Rangely C-4 Site Layout



Legend

- Operational Divisions
- Approximate Spill Location
- TPH Soil Sample Results
 - Total TPH \leq 500
 - Total TPH $>$ 500 and \leq 5000 mg/kg
 - Total TPH $>$ 5000 mg/kg

Notes

- Coordinate System: NAD 1983 StatePlane Colorado North FIPS 0501 Feet
- Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

*Rounding of the Total TPH value was conducted to better display data.

0 75 150 Feet
1:900 (At original document size of 11x17)



Project Location
Near Rangely
Rio Blanco County, Colorado

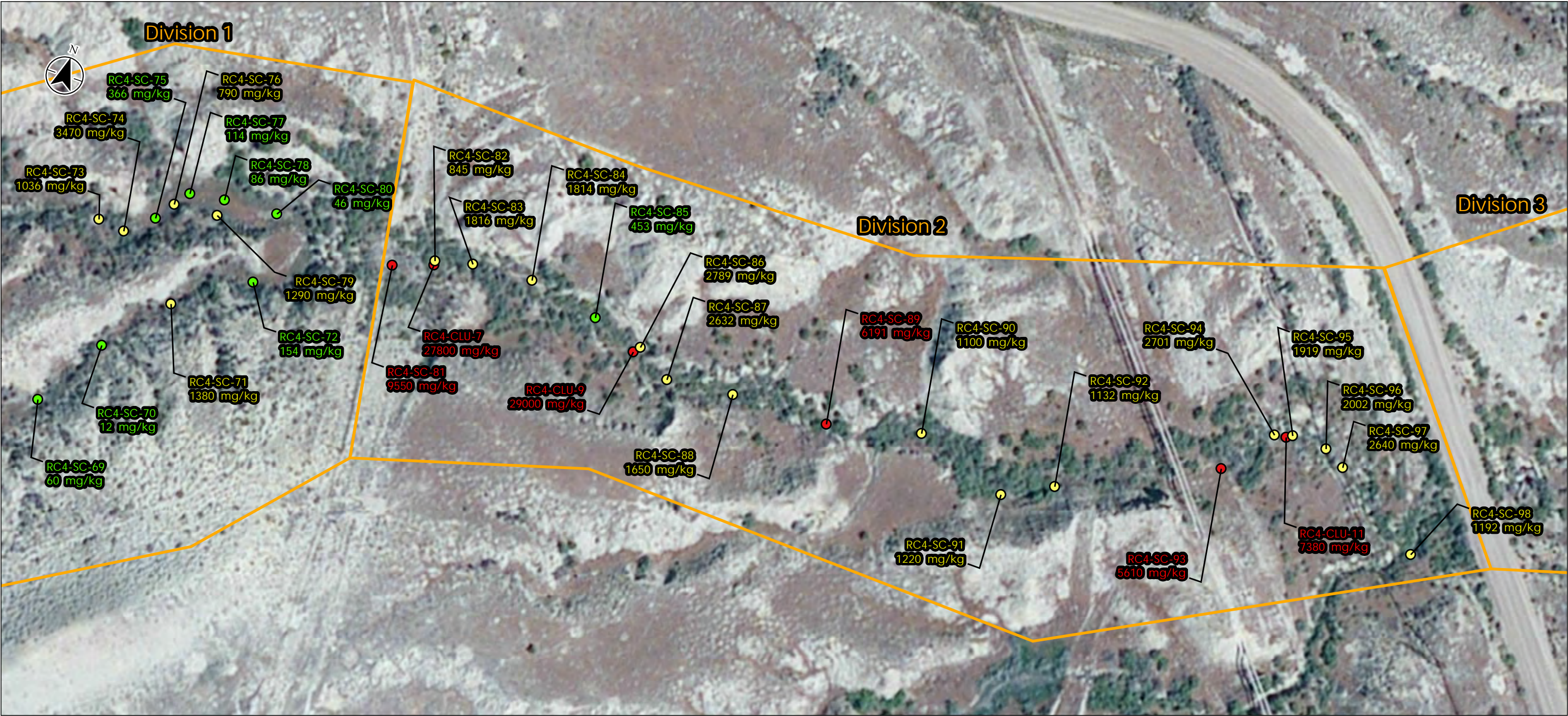
Prepared by LMB on 2017-05-17
Technical Review by TR on 2017-05-17
Independent Review by TM on 2017-05-17

Client/Project
Rangely C-4 Spill - Confidential

Figure No.
2-1

Title

Rangely C-4 TPH Soil Sample Results

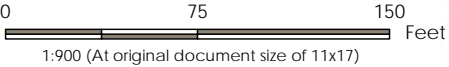


Legend

- Operational Divisions
- Approximate Spill Location
- TPH Soil Sample Results**
 - Total TPH <= 500
 - Total TPH > 500 and <= 5000 mg/kg
 - Total TPH > 5000 mg/kg

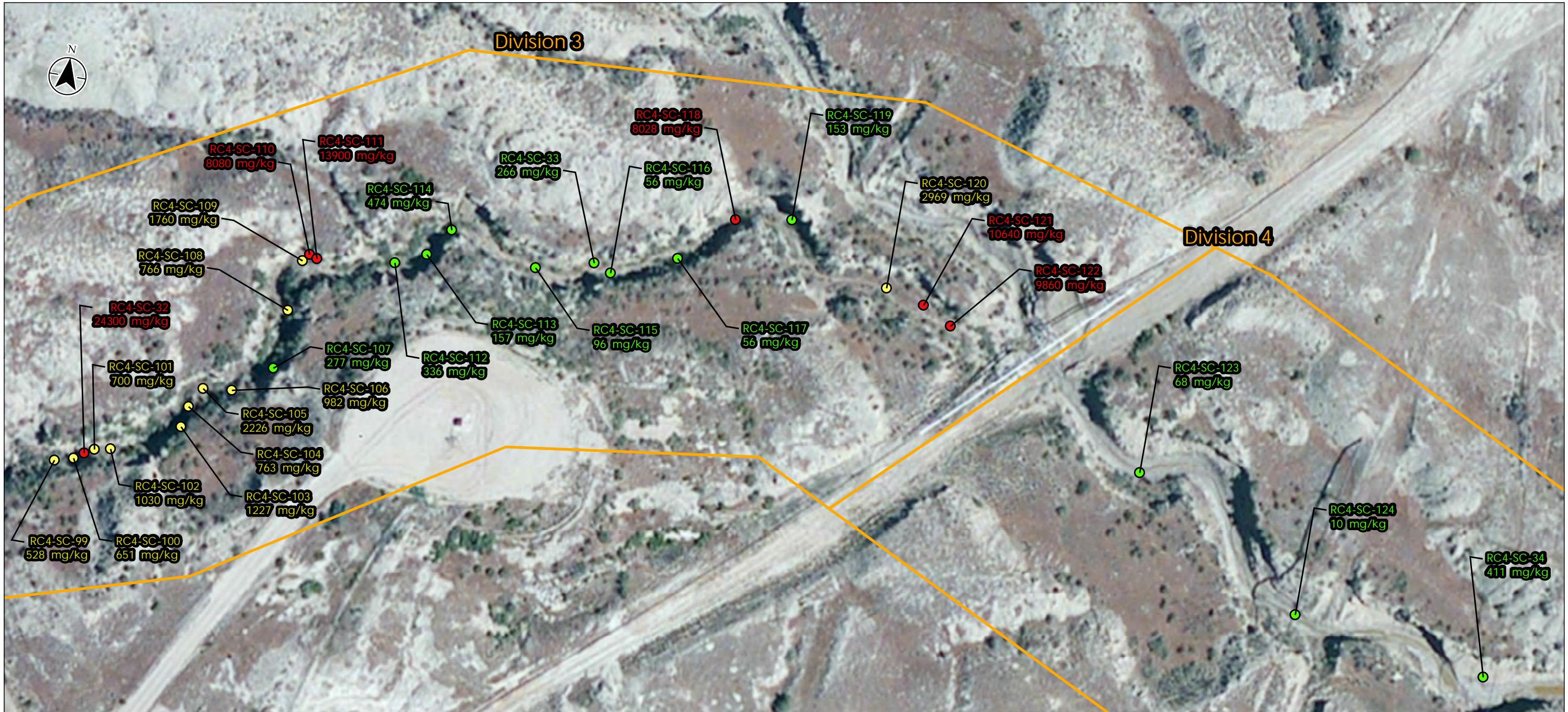
Notes
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2. Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

*Rounding of the Total TPH value was conducted to better display data.



Project Location	
Near Rangely	
Rio Blanco County, Colorado	
Client/Project	
Rangely C-4 Spill - Confidential	
Figure No.	
2-2	
Title	

Rangely C-4
TPH Soil Sample Results

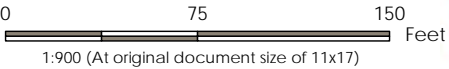


Legend

- Operational Divisions
- Approximate Spill Location
- TPH Soil Sample Results
 - Total TPH <= 500
 - Total TPH > 500 and <= 5000 mg/kg
 - Total TPH > 5000 mg/kg

Notes
1. Coordinate System: NAD 1983 StatePlane Colorado North FIPS 0501 Feet
2. Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

*Rounding of the Total TPH value was conducted to better display data.



Project Location	
Near Rangely	
Rio Blanco County, Colorado	
Client/Project	
Rangely C-4 Spill - Confidential	
Figure No.	
2-3	
Title	

Rangely C-4
TPH Soil Sample Results

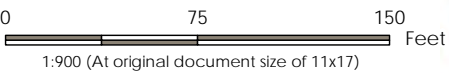


Legend

- Operational Divisions
- Approximate Spill Location
- TPH Soil Sample Results
 - Total TPH <= 500
 - Total TPH > 500 and <= 5000 mg/kg
 - Total TPH > 5000 mg/kg

Notes
1. Coordinate System: NAD 1983 StatePlane Colorado North FIPS 0501 Feet
2. Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

*Rounding of the Total TPH value was conducted to better display data.



Project Location	
Near Rangely	
Rio Blanco County, Colorado	
Client/Project	
Rangely C-4 Spill - Confidential	
Figure No.	
2-4	
Title	

Rangely C-4
TPH Soil Sample Results



Legend

Operational Divisions

Approximate Spill Location

TPH Soil Sample Results

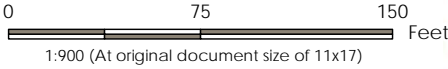
Total TPH <= 500

Total TPH > 500 and <= 5000 mg/kg

Total TPH > 5000 mg/kg

Notes
1. Coordinate System: NAD 1983 StatePlane Colorado North FIPS 0501 Feet
2. Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

*Rounding of the Total TPH value was conducted to better display data.



Project Location
Near Rangely
Rio Blanco County, Colorado

Prepared by LMB on 2017-05-17
Technical Review by TR on 2017-05-17
Independent Review by TM on 2017-05-17

Client/Project
Rangely C-4 Spill - Confidential

Figure No.
2-5

Title

Rangely C-4 TPH Soil Sample Results

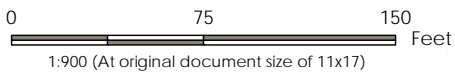


Legend

- Operational Divisions
- Approximate Spill Location
- TPH Soil Sample Results
 - Total TPH <= 500
 - Total TPH > 500 and <= 5000 mg/kg
 - Total TPH > 5000 mg/kg

Notes
1. Coordinate System: NAD 1983 StatePlane Colorado North FIPS 0501 Feet
2. Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

*Rounding of the Total TPH value was conducted to better display data.



Project Location	
Near Rangely	
Rio Blanco County, Colorado	
Client/Project	
Rangely C-4 Spill - Confidential	
Figure No.	
2-6	
Title	

Rangely C-4
TPH Soil Sample Results

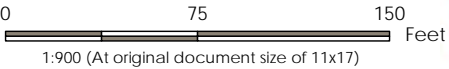


Legend

- Operational Divisions
- ★ Approximate Spill Location
- TPH Soil Sample Results
 - Total TPH <= 500
 - Total TPH > 500 and <= 5000 mg/kg
 - Total TPH > 5000 mg/kg

Notes
1. Coordinate System: NAD 1983 StatePlane Colorado North FIPS 0501 Feet
2. Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

*Rounding of the Total TPH value was conducted to better display data.



Project Location	
Near Rangely	
Rio Blanco County, Colorado	
Client/Project	
Rangely C-4 Spill - Confidential	
Figure No.	
2-7	
Title	

Rangely C-4
TPH Soil Sample Results



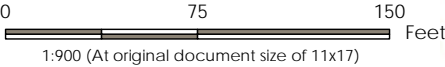
Legend

- Operational Divisions
- Approximate Spill Location
- TPH Soil Sample Results**
 - Total TPH <= 500
 - Total TPH > 500 and <= 5000 mg/kg
 - Total TPH > 5000 mg/kg

Notes

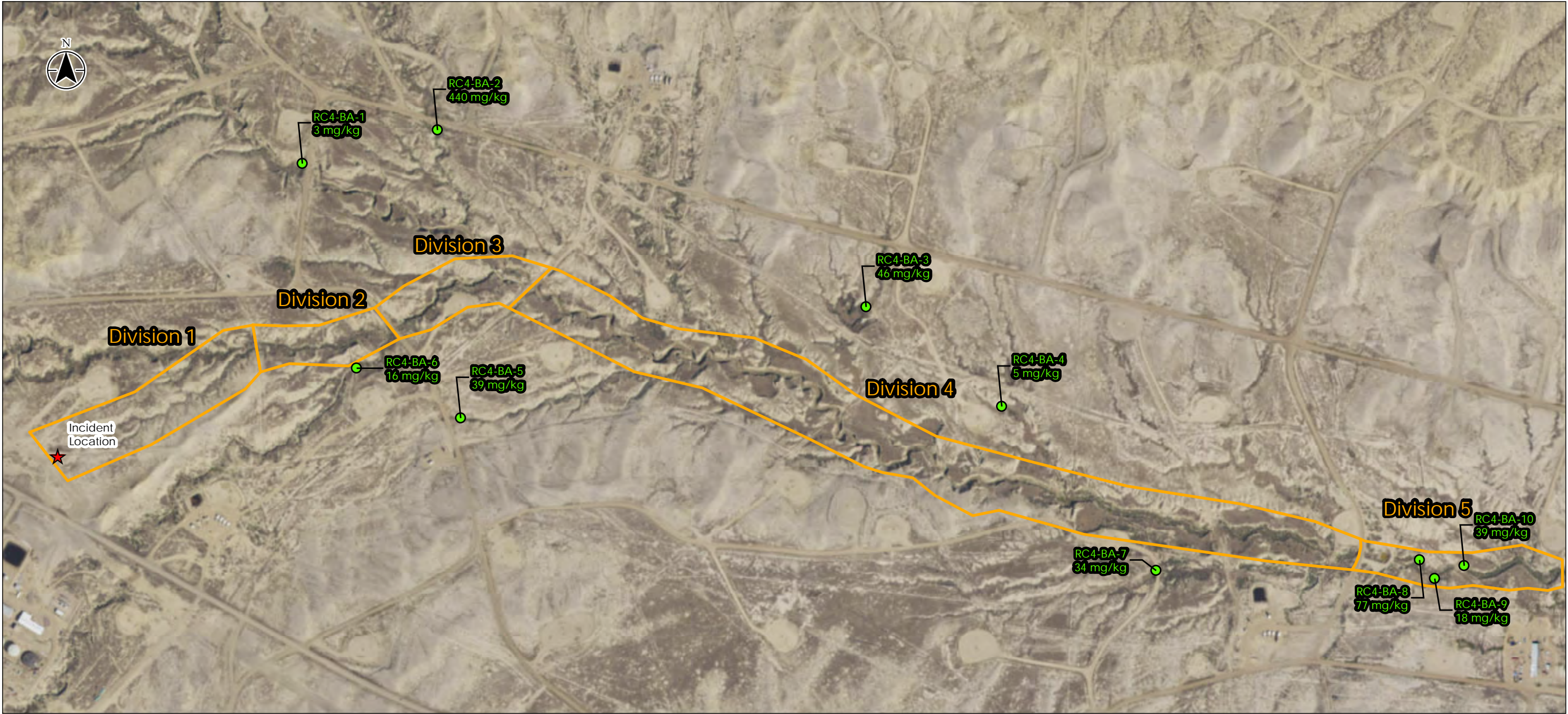
1. Coordinate System: NAD 1983 StatePlane Colorado North FIPS 0501 Feet
2. Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

*Rounding of the Total TPH value was conducted to better display data.



Project Location	
Near Rangely	
Rio Blanco County, Colorado	
Client/Project	
Rangely C-4 Spill - Confidential	
Figure No.	
2-8	
Title	

Rangely C-4 TPH Soil Sample Results



Legend

- Operational Divisions
- Approximate Spill Location

TPH Soil Sample Results

- Total TPH <= 500
- Total TPH > 500 and <= 5000 mg/kg
- Total TPH > 5000 mg/kg

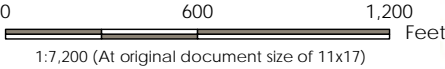
Notes

1. Coordinate System: NAD 1983 StatePlane Colorado North FIPS 0501 Feet

2. Service Layer Credits: Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

*Rounding of the Total TPH value was conducted to better display data.



Project Location
Near Rangely
Rio Blanco County, Colorado

Prepared by LMB on 2017-05-17
Technical Review by TM on 2017-05-17
Independent Review by TR on 2017-05-17

Client/Project
Rangely C-4 Spill - Confidential

Figure No.
3

Title
**Rangely C-4
TPH Soil Sample Results -
Background Samples**

Appendix A

Soil Sample Laboratory Analytical Reports

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: 280-94601-1

Client Project/Site: Stantec CVX - Rangely, CO

Revision: 1

For:

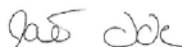
Stantec Consulting Corp.

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

Jamie Ide, Project Manager I

(303)736-0126

jamie.ide@testamericainc.com

LINKS

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results through

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Have a Question?



Visit us at:

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.

Table of Contents

Cover Page 1

Table of Contents 2

Definitions 3

Case Narrative 5

Detection Summary 8

Method Summary 9

Sample Summary 10

Client Sample Results 11

Surrogate Summary 14

QC Sample Results 16

QC Association 25

Chronicle 29

Certification Summary 30

Chain of Custody 32

Receipt Checklists 37



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.
□	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

1

2

3

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15

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							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
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							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
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							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
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							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
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							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
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		52 - 135
Toluene-d8 (Surr)	170	X	65 - 135
4-Bromofluorobenzene (Surr)	154	X	65 - 135
Dibromofluoromethane (Surr)	110		65 - 135

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)	109		52 - 135
Toluene-d8 (Surr)	172	X	65 - 135
4-Bromofluorobenzene (Surr)	139	X	65 - 135
Dibromofluoromethane (Surr)	104		65 - 135

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-Fluorobiphenyl	84		39 - 120	03/09/17 13:12	03/13/17 14:39	1
Nitrobenzene-d5	89		42 - 120	03/09/17 13:12	03/13/17 14:39	1
Terphenyl-d14	80		35 - 124	03/09/17 13:12	03/13/17 14:39	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-Fluorobiphenyl	80		39 - 120
Nitrobenzene-d5	93		42 - 120
Terphenyl-d14	81		35 - 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	193	X D	39 - 120
Nitrobenzene-d5	17163	X D	42 - 120
Terphenyl-d14	273	X D	35 - 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	208	X D	39 - 120
Nitrobenzene-d5	17685	X D	42 - 120
Terphenyl-d14	253	X D	35 - 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	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	92		77 - 123				03/09/17 16:28	03/11/17 12:04	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	LCS %Recovery	LCS Qualifier	Limits						
a,a,a-Trifluorotoluene	93		77 - 123						

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	LCSD %Recovery	LCSD Qualifier	Limits						
a,a,a-Trifluorotoluene	90		77 - 123						

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	MS %Recovery	MS Qualifier	Limits								
a,a,a-Trifluorotoluene	3111	X D	77 - 123								

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	MSD %Recovery	MSD Qualifier	Limits								
a,a,a-Trifluorotoluene	3033	X D	77 - 123								

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	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	79		49 - 115				03/09/17 13:35	03/13/17 19:04	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	%Recovery	LCS Qualifier	Limits				
o-Terphenyl (Surr)	83		49 - 115				

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	%Recovery	MS Qualifier	Limits						
o-Terphenyl (Surr)	350	X D	49 - 115						

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	%Recovery	MSD Qualifier	Limits								
o-Terphenyl (Surr)	344	X D	49 - 115								

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: LCSI 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	LCSI Result	LCSI 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

TestAmerica Denver
4955 Yarrow Street

Arvada, CO 80002-4517
phone 303 736.0100 fax 303.431.7171

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

Project Manager:

Project Manager:

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Contact

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Stantec		Tel/Fax:	Analysis Turnaround Time		Sample (Y/N)	Lab Contact: Jamie Fbel	Carrier: courier	Sampler:
2000 South Colorado Blvd., Ste 2-300		<input type="checkbox"/> CALENDAR DAYS	<input type="checkbox"/> WORKING DAYS	TAT if different from Below	IS / MSD (Y / N)			For Lab Use Only:
Denver, CO 80222		ASAP						Walk-in Client:
(303) 758-4068	Phone	depending						Lab Sampling:
(303) 758-4828	FAX	on analysis						Job / SDG No.:
Project Name: Chevron-Rangely-C4		<input type="checkbox"/>	<input type="checkbox"/>	2 weeks				
Site: Chevron Rangely		<input type="checkbox"/>	<input type="checkbox"/>	1 week				
O # 203720102		<input type="checkbox"/>	<input type="checkbox"/>	2 days				
		<input type="checkbox"/>	<input type="checkbox"/>	1 day				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	# of Cont. Matrix
			Filtered Sample	
			Perform M.	
			BTEX	
			DRO-TOL	
			DRO-7	
			DRO--	
			DRO-C	
			PAHS	
			EC/IC	
			Metal	
			Hg	
			Pb	
			Cr III	

[illegible][illegible]

280-94601 Chain of Custody

[illegible]

Presentation Used: ☐ Ice, ☐ Ice, ☐ HCl, ☐ H₂SO₄, ☐ HNO₃, ☐ NaOH, ☐ Other: _____
 Possible Hazard Identification: _____
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)




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.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:		Cooler Temp. (°C):	Obs'd:	Coord:	Therm ID No.:
Relinquished by: 	Date/Time: 2/24/17 14:44	Received by: 	Company: 		Date/Time: 02/26/17 18:50	

Relinquished by:	<i>Joe Rye</i>	Company:	<i>State</i>	Date/Time:	<i>11/01/10</i>	Received by:	<i>[Signature]</i>	Company:	<i>AD</i>	Date/Time:	<i>3/9/17</i>	<i>0735</i>
Relinquished by:		Company:		Date/Time:		Received in Laboratory by:		Company:		Date/Time:		

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

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



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...NO...NA

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

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

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

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

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

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

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

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

14. Was there a Trip Blank in this cooler? YES NO...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...NO...NA

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

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

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

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

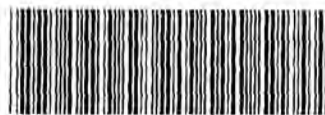
20. Was sufficient amount of sample sent in each container? YES NO...NO...NA

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 Was a NCM generated? YES NO...#

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...#

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Chain of Custody Record

280-94601

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

THE LEADER IN ENVIRONMENTAL TESTING

[illegible]

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-94601-1

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	

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:

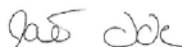
Stantec Consulting Corp.

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

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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.

Table of Contents

Cover Page 1

Table of Contents 2

Definitions 3

Case Narrative 4

Detection Summary 5

Method Summary 6

Sample Summary 7

Client Sample Results 8

Surrogate Summary 9

QC Sample Results 10

QC Association 11

Chronicle 12

Certification Summary 13

Chain of Custody 14

Receipt Checklists 15



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 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	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 References:

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:

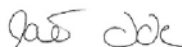
Stantec Consulting Corp.

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

LINKS

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results through

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www.testamericainc.com

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Table of Contents

Cover Page 1

Table of Contents 2

Definitions 3

Case Narrative 4

Detection Summary 7

Method Summary 10

Sample Summary 11

Client Sample Results 12

Surrogate Summary 22

QC Sample Results 24

QC Association 32

Chronicle 37

Certification Summary 41

Chain of Custody 43

Receipt Checklists 49



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)	101		58 - 140	03/13/17 12:16	03/13/17 13:03	1
Toluene-d8 (Surr)	96		80 - 126	03/13/17 12:16	03/13/17 13:03	1
4-Bromofluorobenzene (Surr)	94		76 - 127	03/13/17 12:16	03/13/17 13:03	1
Dibromofluoromethane (Surr)	104		75 - 121	03/13/17 12:16	03/13/17 13:03	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)	103		58 - 140	03/13/17 12:16	03/13/17 14:05	1
Toluene-d8 (Surr)	94		80 - 126	03/13/17 12:16	03/13/17 14:05	1
4-Bromofluorobenzene (Surr)	93		76 - 127	03/13/17 12:16	03/13/17 14:05	1
Dibromofluoromethane (Surr)	106		75 - 121	03/13/17 12:16	03/13/17 14:05	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
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)	100		58 - 140	03/13/17 12:16	03/13/17 14:26	1
Toluene-d8 (Surr)	93		80 - 126	03/13/17 12:16	03/13/17 14:26	1
4-Bromofluorobenzene (Surr)	93		76 - 127	03/13/17 12:16	03/13/17 14:26	1
Dibromofluoromethane (Surr)	105		75 - 121	03/13/17 12:16	03/13/17 14:26	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)	101		58 - 140	03/13/17 12:16	03/13/17 14:46	1
Toluene-d8 (Surr)	94		80 - 126	03/13/17 12:16	03/13/17 14:46	1
4-Bromofluorobenzene (Surr)	91		76 - 127	03/13/17 12:16	03/13/17 14:46	1
Dibromofluoromethane (Surr)	103		75 - 121	03/13/17 12:16	03/13/17 14:46	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-Fluorobiphenyl	74		39 - 120	03/12/17 19:15	03/14/17 20:30	1
Nitrobenzene-d5	90		42 - 120	03/12/17 19:15	03/14/17 20:30	1
Terphenyl-d14	67		35 - 124	03/12/17 19:15	03/14/17 20:30	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-Fluorobiphenyl	81		39 - 120	03/12/17 19:15	03/14/17 15:20	1
Nitrobenzene-d5	96		42 - 120	03/12/17 19:15	03/14/17 15:20	1
Terphenyl-d14	71		35 - 124	03/12/17 19:15	03/14/17 15:20	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-Fluorobiphenyl	73		39 - 120	03/12/17 19:15	03/14/17 15:46	1
Nitrobenzene-d5	85		42 - 120	03/12/17 19:15	03/14/17 15:46	1
Terphenyl-d14	64		35 - 124	03/12/17 19:15	03/14/17 15:46	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-Fluorobiphenyl	70		39 - 120	03/12/17 19:15	03/14/17 16:12	1
Nitrobenzene-d5	97		42 - 120	03/12/17 19:15	03/14/17 16:12	1
Terphenyl-d14	60		35 - 124	03/12/17 19:15	03/14/17 16:12	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-Trifluorotoluene	76	X	77 - 123	03/09/17 10:00	03/11/17 16:11	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-Trifluorotoluene	69	X	77 - 123	03/09/17 11:30	03/11/17 16:35	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-Trifluorotoluene	89		77 - 123	03/09/17 12:20	03/11/17 17:00	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-Trifluorotoluene	53	X	77 - 123	03/09/17 13:05	03/11/17 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> -Terphenyl (Surr)	99		49 - 115				03/10/17 15:45	03/14/17 20:03	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> -Terphenyl (Surr)	102		49 - 115				03/10/17 15:45	03/14/17 20:28	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> -Terphenyl (Surr)	102		49 - 115				03/10/17 15:45	03/14/17 20:53	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> -Terphenyl (Surr)	91		49 - 115				03/10/17 15:45	03/14/17 22:07	1

Method: 20B - Sodium Adsorption Ratio - 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
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

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
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 Recovery (Acceptance Limits)			
		12DCE (58-140)	TOL (80-126)	BFB (76-127)	DBFM (75-121)
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: 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)
280-94682-1	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/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)
280-94682-1	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/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	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	ND		0.0050	0.00047	mg/Kg		03/13/17 11:00	03/13/17 12:43	1
Ethylbenzene	ND		0.0050	0.00067	mg/Kg		03/13/17 11:00	03/13/17 12:43	1
Toluene	ND		0.0050	0.00069	mg/Kg		03/13/17 11:00	03/13/17 12:43	1
m-Xylene & p-Xylene	ND		0.0025	0.0010	mg/Kg		03/13/17 11:00	03/13/17 12:43	1
o-Xylene	ND		0.0025	0.00061	mg/Kg		03/13/17 11:00	03/13/17 12:43	1
Xylenes, Total	ND		0.0050	0.00061	mg/Kg		03/13/17 11:00	03/13/17 12:43	1

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 280-365242/1-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/Kg		85	75 - 135
Ethylbenzene	0.0500	0.0397		mg/Kg		79	73 - 125
Toluene	0.0500	0.0423		mg/Kg		85	77 - 122
m-Xylene & p-Xylene	0.0500	0.0392		mg/Kg		78	77 - 135
o-Xylene	0.0500	0.0406		mg/Kg		81	75 - 135
Xylenes, Total	0.100	0.0798		mg/Kg		80	76 - 135

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: 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	ND		0.0544	0.0565		mg/Kg	☼	104	75 - 135
Ethylbenzene	ND		0.0544	0.0502		mg/Kg	☼	92	73 - 125
Toluene	ND		0.0544	0.0553		mg/Kg	☼	102	77 - 122
m-Xylene & p-Xylene	ND		0.0544	0.0486		mg/Kg	☼	89	77 - 135
o-Xylene	ND		0.0544	0.0503		mg/Kg	☼	92	75 - 135
Xylenes, Total	ND		0.109	0.0989		mg/Kg	☼	91	76 - 135

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		58 - 140
Toluene-d8 (Surr)	94		80 - 126
4-Bromofluorobenzene (Surr)	90		76 - 127

TestAmerica Denver

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
Dibromofluoromethane (Surr)	103		75 - 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	ND		0.0546	0.0565		mg/Kg	☼	103	75 - 135	0	20
Ethylbenzene	ND		0.0546	0.0497		mg/Kg	☼	91	73 - 125	1	20
Toluene	ND		0.0546	0.0566		mg/Kg	☼	104	77 - 122	2	20
m-Xylene & p-Xylene	ND		0.0546	0.0493		mg/Kg	☼	90	77 - 135	1	20
o-Xylene	ND		0.0546	0.0502		mg/Kg	☼	92	75 - 135	0	20
Xylenes, Total	ND		0.109	0.0995		mg/Kg	☼	91	76 - 135	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		58 - 140
Toluene-d8 (Surr)	92		80 - 126
4-Bromofluorobenzene (Surr)	88		76 - 127
Dibromofluoromethane (Surr)	101		75 - 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
Acenaphthene	ND		0.0050	0.00016	mg/Kg		03/12/17 19:15	03/14/17 14:29	1
Anthracene	0.000752	J	0.0050	0.00072	mg/Kg		03/12/17 19:15	03/14/17 14:29	1
Benzo[a]anthracene	ND		0.0050	0.00090	mg/Kg		03/12/17 19:15	03/14/17 14:29	1
Benzo[a]pyrene	ND		0.0050	0.00074	mg/Kg		03/12/17 19:15	03/14/17 14:29	1
Benzo[b]fluoranthene	ND		0.0050	0.0012	mg/Kg		03/12/17 19:15	03/14/17 14:29	1
Benzo[k]fluoranthene	ND		0.0050	0.0010	mg/Kg		03/12/17 19:15	03/14/17 14:29	1
Chrysene	ND		0.0050	0.0010	mg/Kg		03/12/17 19:15	03/14/17 14:29	1
Dibenz(a,h)anthracene	ND		0.0050	0.0013	mg/Kg		03/12/17 19:15	03/14/17 14:29	1
Fluoranthene	0.00186	J	0.0050	0.0010	mg/Kg		03/12/17 19:15	03/14/17 14:29	1
Fluorene	ND		0.0050	0.00047	mg/Kg		03/12/17 19:15	03/14/17 14:29	1
Indeno[1,2,3-cd]pyrene	ND		0.0050	0.0011	mg/Kg		03/12/17 19:15	03/14/17 14:29	1
Naphthalene	ND		0.0050	0.00033	mg/Kg		03/12/17 19:15	03/14/17 14:29	1
Pyrene	0.00240	J	0.0050	0.0011	mg/Kg		03/12/17 19:15	03/14/17 14:29	1

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

TestAmerica Denver

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
Acenaphthene	0.0300	0.0293		mg/Kg		98	35 - 120
Anthracene	0.0300	0.0299		mg/Kg		100	43 - 120
Benzo[a]anthracene	0.0300	0.0322		mg/Kg		107	36 - 120
Benzo[a]pyrene	0.0300	0.0327		mg/Kg		109	20 - 120
Benzo[b]fluoranthene	0.0300	0.0322		mg/Kg		107	37 - 120
Benzo[k]fluoranthene	0.0300	0.0301		mg/Kg		100	46 - 120
Chrysene	0.0300	0.0324		mg/Kg		108	34 - 120
Dibenz(a,h)anthracene	0.0300	0.0298		mg/Kg		99	20 - 120
Fluoranthene	0.0300	0.0292		mg/Kg		97	45 - 120
Fluorene	0.0300	0.0304		mg/Kg		101	44 - 120
Indeno[1,2,3-cd]pyrene	0.0300	0.0306		mg/Kg		102	20 - 127
Naphthalene	0.0300	0.0313		mg/Kg		104	44 - 120
Pyrene	0.0300	0.0279		mg/Kg		93	43 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	81		39 - 120
Nitrobenzene-d5	92		42 - 120
Terphenyl-d14	77		35 - 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
GRO (C6-C10)	ND		1.2	0.33	mg/Kg		03/10/17 09:34	03/11/17 14:57	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	90		77 - 123	03/10/17 09:34	03/11/17 14:57	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
GRO (C6-C10)	5.50	5.97		mg/Kg		109	85 - 153

Surrogate	LCS %Recovery	LCS Qualifier	Limits
a,a,a-Trifluorotoluene	95		77 - 123

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
GRO (C6-C10)	5.50	5.99		mg/Kg		109	85 - 153	0	30

TestAmerica Denver

QC Sample Results

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

TestAmerica Job ID: 280-94682-1

	<i>LCS</i>	<i>D</i>	
Surrogate	%Recovery	Qualifier	Limits
<i>a,a,a-Trifluorotoluene</i>	93		77 - 123

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

Lab Sample ID: MB 280-365103/1-B						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 365426						Prep Batch: 365103			
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		4.0	0.68	mg/Kg		03/10/17 15:45	03/14/17 18:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o-Terphenyl (Surr)</i>	123	X	49 - 115				03/10/17 15:45	03/14/17 18:24	1

Lab Sample ID: LCS 280-365103/2-B						Client Sample ID: Lab Control Sample			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 365426						Prep Batch: 365103			
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
DRO (C10-C28)			66.7	63.4		mg/Kg		95	53 - 115
Surrogate	%Recovery	Qualifier	Limits						
<i>o-Terphenyl (Surr)</i>	126	X	49 - 115						

Method: 20B - Sodium Adsorption Ratio

Lab Sample ID: MB 280-365121/1-A						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Soluble			
Analysis Batch: 365556						Prep Batch: 365121			
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	ND		10	10	mg/Kg		03/10/17 15:54	03/14/17 09:43	10
Ca	ND		2.0	2.0	mg/Kg		03/10/17 15:54	03/14/17 09:43	10
Mg	ND		2.0	2.0	mg/Kg		03/10/17 15:54	03/14/17 09:43	10
Sodium Adsorption Ratio	ND		1.2	1.2	No Unit		03/10/17 15:54	03/14/17 09:43	10
Lab Sample ID: 280-94682-4 DU						Client Sample ID: RC4-HER05-0.25			
Matrix: Solid						Prep Type: Soluble			
Analysis Batch: 365556						Prep Batch: 365121			
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit	
Na	ND		ND		mg/Kg		NC	20	
Ca	110		137	F3	mg/Kg		21	20	
Mg	11		12.9		mg/Kg		17	20	
Sodium Adsorption Ratio	ND		ND		No Unit		NC	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	ND		1.0	0.10	mg/Kg		03/10/17 14:20	03/11/17 04:14	1
Cadmium	ND		0.50	0.041	mg/Kg		03/10/17 14:20	03/11/17 04:14	1
Chromium	0.0670	J	1.5	0.058	mg/Kg		03/10/17 14:20	03/11/17 04:14	1
Lead	ND		0.90	0.31	mg/Kg		03/10/17 14:20	03/11/17 04:14	1
Boron	2.13	J	10	0.98	mg/Kg		03/10/17 14:20	03/11/17 04:14	1
Selenium	ND		1.5	0.86	mg/Kg		03/10/17 14:20	03/11/17 04:14	1
Silver	ND		1.0	0.16	mg/Kg		03/10/17 14:20	03/11/17 04:14	1
Calcium	18.2	J	50	14	mg/Kg		03/10/17 14:20	03/11/17 04:14	1
Copper	ND		2.0	0.22	mg/Kg		03/10/17 14:20	03/11/17 04:14	1
Magnesium	7.01	J	20	3.7	mg/Kg		03/10/17 14:20	03/11/17 04:14	1
Nickel	ND		4.0	0.13	mg/Kg		03/10/17 14:20	03/11/17 04:14	1
Sodium	ND		500	59	mg/Kg		03/10/17 14:20	03/11/17 04:14	1
Zinc	ND		3.0	0.40	mg/Kg		03/10/17 14:20	03/11/17 04:14	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/Kg		97	87 - 112
Cadmium	10.0	9.59		mg/Kg		96	87 - 110
Chromium	20.0	19.0		mg/Kg		95	84 - 114
Lead	50.0	47.3		mg/Kg		95	86 - 110
Boron	100	93.0		mg/Kg		93	80 - 120
Selenium	200	184		mg/Kg		92	83 - 110
Silver	5.00	5.42		mg/Kg		108	87 - 114
Copper	25.0	23.6		mg/Kg		94	88 - 110
Nickel	50.0	45.9		mg/Kg		92	87 - 110
Zinc	50.0	49.2		mg/Kg		98	76 - 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	310		223	562		mg/Kg	☼	111	52 - 159
Cadmium	0.38	J F2	11.2	10.2		mg/Kg	☼	88	40 - 130
Chromium	14	B	22.3	42.4		mg/Kg	☼	129	70 - 200
Lead	14	F2	55.8	61.0		mg/Kg	☼	84	70 - 200
Boron	12	B F2	112	113		mg/Kg	☼	90	80 - 120
Selenium	0.86	J F2	223	188		mg/Kg	☼	84	76 - 104
Silver	ND	F2	5.58	5.69		mg/Kg	☼	102	75 - 141
Copper	13	F2	27.9	37.9		mg/Kg	☼	91	37 - 187
Nickel	13	F2	55.8	59.1		mg/Kg	☼	83	61 - 126
Zinc	62		55.8	116		mg/Kg	☼	98	70 - 200

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) (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	310		171	483		mg/Kg	☼	99	52 - 159	15	20
Cadmium	0.38	J F2	8.53	7.60	F2	mg/Kg	☼	85	40 - 130	29	20
Chromium	14	B	17.1	35.7		mg/Kg	☼	130	70 - 200	17	20
Lead	14	F2	42.7	47.8	F2	mg/Kg	☼	78	70 - 200	24	20
Boron	12	B F2	85.3	86.1	F2	mg/Kg	☼	86	80 - 120	27	20
Selenium	0.86	J F2	171	138	F2	mg/Kg	☼	80	76 - 104	31	20
Silver	ND	F2	4.27	4.26	F2	mg/Kg	☼	100	75 - 141	29	20
Copper	13	F2	21.3	30.8	F2	mg/Kg	☼	85	37 - 187	21	20
Nickel	13	F2	42.7	46.4	F2	mg/Kg	☼	78	61 - 126	24	20
Zinc	62		42.7	99.8		mg/Kg	☼	89	70 - 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	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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	20.0	17.9		mg/Kg		90	83 - 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
Mercury	ND		0.017	0.0055	mg/Kg		03/10/17 11:59	03/10/17 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
Mercury	0.417	0.434		mg/Kg		104	87 - 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
Mercury	0.020	J F2 F1	0.499	0.436	F1	mg/Kg	☼	83	87 - 111

TestAmerica Denver

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Mercury	0.020	J F2 F1	0.547	0.562	F2	mg/Kg	☼	99	87 - 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
Chromium, hex	ND		4.9	2.0	mg/Kg		03/11/17 16:32	03/11/17 20:24	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

Analyte	Spike Added	LCS1 Result	LCS1 Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hex	63.9	52.1		mg/Kg		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

Analyte	Spike Added	LCSS Result	LCSS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hex	40.1	40.1		mg/Kg		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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hex	3.8	J	71.2	75.9		mg/Kg	☼	101	75 - 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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hex	3.8	J	44.3	38.8		mg/Kg	☼	79	75 - 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

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Chromium, hex	3.8	J	4.29	J	mg/Kg	☼	12	20

TestAmerica Denver

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 adj. to 25 deg C	7.00	7.0		SU	—	100	97 - 103

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

Chain of Custody Record

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

Client Contact		Project Manager: Bethany Lucente		Site Contact: Bethany Lucente		Date: 3/9/17		COC No: 1 of 1 COCs	
Tel/Fax: (303) 250-4718		Analysis Turnaround Time		Lab Contact: Jamie Ide		Carrier: Courier (Early Collect)		Sampler:	
2000 South Colorado Blvd., Suite 2-300		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		PAHS 8700D-GM		Moisture		For Lab Use Only:	
(303) 758-4058 Phone		TAT if different from Below ASAP depending on analysis		DRO, ORO w/ GHEM		PH 9045D		Walk-in Client:	
(303) 758-4828 FAX		2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day <input type="checkbox"/>		GRO-TEPH 8015B		Hg 7171A		Lab Sampling:	
Project Name: Chevron-Rangely C-4				DRO-TEPH 8015B		Metals 6010C		Job / SDG No.:	
Site: Chevron Rangely				GRO-TEPH 8015B		EC/SAR			
P O # 203720102				BTEX 8260B		PAHS 8700D-GM			
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-HELO2-0.25	3/9/17	1000	G	S	11				*Metals List*
RC4-HELO3-0.25		1130							As, Ba, B, Cd, Cr, Cu,
RC4-HELO4-0.25		1220							Pb, Ni, Se, Ag, Zn
RC4-HEROS-0.25		1305							
 280-94682 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 As, Ba, B, Cd, Cr, Cu, Pb, Ni, Se, Ag, Zn									
Custody Seal No.:		Company: Starter		Date/Time: 3/9/17 1400		Cooler Temp. (°C):		Therm ID No.:	
Relinquished by: Anna Schumann		Company: GREELY		Date/Time: 3-9-17 1830		Company: GREELY		Date/Time: 3-9-17 1400	
Relinquished by: Dan M. M.		Company: GREELY		Date/Time: 3-9-17 1830		Company: GREELY		Date/Time: 3-9-17 1400	
Relinquished by:		Company:		Date/Time:		Company:		Date/Time:	



Client Information (Sub Contract Lab)				Carrier Tracking No(s): 280-390310.1	
Lab PM: Ide, Jamie N				State of Origin: Colorado	
Client Contact: Shipping/Receiving				Page: Page 1 of 1	
Company: TestAmerica Laboratories, Inc				Job #: 280-94682-1	
Address: 2960 Foster Creighton Drive, City: Nashville State, Zip: TN, 37204 Phone: 615-726-0177(Tel) 615-726-3404(Fax) Email: Project Name: Stattec CVX - Rangely, CO Site:				Accreditations Required (See note): 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:	
Analysis Requested				Preservation Codes:	
Due Date Requested: 3/15/2017				Total Number of Containers	
TAT Requested (days):				Special Instructions/Note:	
PO #:				1	
WO #:				1	
Project #:				1	
SSOW#:				1	
Sample Identification - Client ID (Lab ID)				Special Instructions/Note:	
RC4-HEL02-0.25 (280-94682-1)				1	
RC4-HEL03-0.25 (280-94682-2)				1	
RC4-HER04-0.25 (280-94682-3)				1	
RC4-HER05-0.25 (280-94682-4)				1	
Sample Date				Special Instructions/Note:	
3/9/17				1	
Sample Time				Special Instructions/Note:	
10:00 Mountain				1	
11:30 Mountain				1	
12:20 Mountain				1	
13:05 Mountain				1	
Sample Type (C=comp, G=grab)				Special Instructions/Note:	
Solid				1	
Matrix (W=water, S=solid, O=oil, T=tissue, A=air)				Special Instructions/Note:	
Solid				1	
Field Filtered Sample (Yes or No)				Special Instructions/Note:	
X				1	
Perform MS/MSD (Yes or No)				Special Instructions/Note:	
X				1	
7196A CR3/ Trivalent Chromium (CrIII)				Special Instructions/Note:	
X				1	
29B_EC/SaIPaste_Prep Electrical Conductivity				Special Instructions/Note:	
X				1	
7196A/3060A Hexavalent Chromium (CrVI)				Special Instructions/Note:	
X				1	

Note: Since laboratory accreditation is subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification			
Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) _____			
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			
Special Instructions/QC Requirements:			
Empty Kit Relinquished by: _____ Date: _____			
Relinquished by: <i>[Signature]</i> Date: 3/10/17 1525 Company: TAB			
Relinquished by: _____ Date/Time: _____ Company: _____			
Relinquished by: _____ Date/Time: _____ Company: _____			
Custody Seals Intact: _____ Custody Seal No.: _____			

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		280-290310.1							
Shipping/Receiving:		E-Mail:	jamie.ide@testamericainc.com	State of Origin:	Page 1 of 1							
Company:		Accreditations Required (See note):		Colorado	Job #:							
TestAmerica Laboratories, Inc.					280-94682-1							
Address:		Due Date Requested:	Analysis Requested									
2960 Foster Creighton Drive,		3/15/2017										
City:		TAT Requested (days):										
Nashville												
State, Zip:		PO #:										
TN, 37204		W/O #:										
Phone:		Project #:										
615-726-0177(Tel) 615-726-3404(Fax)		28016458										
Email:		SSOW#:										
Project Name:												
Stanlec CVX - Rangely, CO												
Site:												
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Minerals, Suspended, Organic, Inorganic, etc.)	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 subcontracted 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 analyte(s)/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												
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 <input type="checkbox"/> Months												
Special Instructions/QC Requirements:												
Empty Kit Relinquished by: Date: Time: Method of Shipment:												
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:												
Custody Seals Intact: Custody Seal No.: Cooler Temperature(s) °C and Other Remarks: 5.3												

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

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 # 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

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 NO Was a NCM generated? YES...NO...# 0

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:	COC No:																																															
Client Contact:		Phone:	Ida, Jamie N	230-390538.1																																															
Shipping/Receiving:		E-Mail: jamie.lda@testamericainc.com		Page: 1 of 1																																															
Company:		Accreditations Required (See note):		Job #:																																															
TestAmerica Laboratories, Inc				230-94682-1																																															
Address:		Due Date Requested:	Preservation Codes:																																																
2960 Foster Creighton Drive,		3/15/2017	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 - BDA Other:																																																
City:		TAT Requested (days):	M - Hexane N - None O - AsnO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecylhydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)																																																
State, Zip:		PO #:																																																	
TN, 37204		WO #:																																																	
Phone:		Project #:																																																	
615-726-0177(Tel) 615-726-3404(Fax)		28016458																																																	
Email:		SSOW#:																																																	
Project Name:																																																			
Stanec CVX - Rangely, CO																																																			
Site:																																																			
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RC4-HIER05-0.25 (280-94682-4)	3/9/17	13:05		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/test/method 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):</p> <p>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: _____</p> <p>Relinquished by: <u>Tabbena</u> <u>We</u> Date/Time: <u>3/13/17</u> <u>1515</u> Company: <u>TAB</u></p> <p>Relinquished by: _____ Date/Time: _____ Company: _____</p> <p>Relinquished by: _____ Date/Time: _____ Company: _____</p> <p>Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.: _____</p> <p>Cooler Temperature(s) °C and Other Remarks: <u>3.0</u></p>																																																			

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-94682-1

Login Number: 94682

List Number: 1

Creator: Woodworth, Sean P

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	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

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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.

Table of Contents

Cover Page 1

Table of Contents 2

Definitions 3

Case Narrative 4

Detection Summary 5

Method Summary 6

Sample Summary 7

Client Sample Results 8

Surrogate Summary 9

QC Sample Results 10

QC Association 11

Chronicle 12

Certification Summary 13

Chain of Custody 14

Receipt Checklists 16



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

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

TestAmerica Job ID: 280-94682-2

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: 280-94682-2

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: 280-94682-2

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		4.1	0.70	mg/Kg	☼	03/15/17 10:45	03/17/17 14:58	1
ORO (C20-C38)	6.5	J	12	4.0	mg/Kg	☼	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	4.7	0.79	mg/Kg	☼	03/15/17 10:45	03/17/17 15:27	1
ORO (C20-C38)	5.6	J	14	4.5	mg/Kg	☼	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		4.6	0.78	mg/Kg	☼	03/15/17 10:45	03/17/17 15:56	1
ORO (C20-C38)	10	J	14	4.5	mg/Kg	☼	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	4.7	0.80	mg/Kg	☼	03/15/17 10:45	03/17/17 16:25	1
ORO (C20-C38)	ND		14	4.6	mg/Kg	☼	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 Denver

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

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)

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
ORO (C20-C38)	ND		12	3.9	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: 280-94682-2

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.
Project/Site: Stantec CVX - Rangely, CO

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

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	3546			33.0 g	1 mL	365546	03/15/17 10:45	JRA	TAL DEN
Total/NA	Analysis	8015C		1			365789	03/17/17 14:58	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

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	3546			30.3 g	1 mL	365546	03/15/17 10:45	JRA	TAL DEN
Total/NA	Analysis	8015C		1			365789	03/17/17 15:27	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

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	3546			30.5 g	1 mL	365546	03/15/17 10:45	JRA	TAL DEN
Total/NA	Analysis	8015C		1			365789	03/17/17 15:56	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

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			32.1 g	1 mL	365546	03/15/17 10:45	JRA	TAL DEN
Total/NA	Analysis	8015C		1			365789	03/17/17 16:25	DAW	TAL DEN

Laboratory References:

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: 280-94682-2

Laboratory: TestAmerica Denver

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

Authority	Program	EPA Region	Certification ID	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	04-05-17
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	04-30-17
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	04-01-17
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

* Certification renewal pending - certification considered valid.

TestAmerica Denver



Client Information (Sub Contract Lab)				Carrier Tracking No(s): 280-390310.1	
Lab PM: Ide, Jamie N				State of Origin: Colorado	
Client Contact: Shipping/Receiving				Page: Page 1 of 1	
Company: TestAmerica Laboratories, Inc				Job #: 280-94682-1	
Address: 2960 Foster Creighton Drive, City: Nashville State, Zip: TN, 37204 Phone: 615-726-0177(Tel) 615-726-3404(Fax) Email: Project Name: Stateloc CVX - Rangely, CO Site:				Accreditation Required (See note): 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:	
Analysis Requested				Special Instructions/Note:	
Due Date Requested: 3/15/2017 TAT Requested (days):				Total Number of Containers	
PO #: WO #: Project #: SSOW#:				7196A CR3/ Trivalent Chromium (CrIII) 29B_EC/SaIPaste_Prep Electrical Conductivity 7196A/3060A Hexavalent Chromium (CrVI)	
Sample Identification - Client ID (Lab ID)				Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No)	
Sample Date Sample Time Sample Type (C=comp, G=grab) Matrix (W=water, S=solid, O=oil, T=tissue, A=air) Preservation Code:				Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No)	
RC4-HEL02-0.25 (280-94682-1) RC4-HEL03-0.25 (280-94682-2) RC4-HER04-0.25 (280-94682-3) RC4-HER05-0.25 (280-94682-4)				1 1 1 1	
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) <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)				Special Instructions/QC Requirements:	
Empty Kit Relinquished by:				Method of Shipment:	
Relinquished by: <i>[Signature]</i>				Received by:	
Relinquished by:				Received by:	
Relinquished by:				Received by:	
Custody Seals Intact: A Yes A No				Cooler Temperature(s) °C and Other Remarks:	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-94682-2

Login Number: 94682

List Number: 1

Creator: Woodworth, Sean P

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	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:

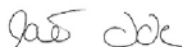
Stantec Consulting Corp.

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.

Table of Contents

Cover Page 1

Table of Contents 2

Definitions 3

Case Narrative 5

Detection Summary 8

Method Summary 14

Sample Summary 15

Client Sample Results 16

Surrogate Summary 32

QC Sample Results 35

QC Association 45

Chronicle 53

Certification Summary 60

Chain of Custody 62

Receipt Checklists 65



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

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

TestAmerica Job ID: 280-94768-1

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
Benzene	0.0021	J	0.0047	0.00044	mg/Kg	1		✱	8260B	Total/NA
Toluene	0.0028	J	0.0047	0.00065	mg/Kg	1		✱	8260B	Total/NA
m-Xylene & p-Xylene	0.0013	J	0.0024	0.00098	mg/Kg	1		✱	8260B	Total/NA
Xylenes, Total	0.0013	J	0.0047	0.00058	mg/Kg	1		✱	8260B	Total/NA
Naphthalene	0.00073	J	0.0059	0.00039	mg/Kg	1		✱	8270D SIM	Total/NA
DRO (C10-C28)	2.1	J	4.9	0.83	mg/Kg	1		✱	8015C	Total/NA
Na	91		10	10	mg/Kg	10			20B	Soluble
Ca	52		2.0	2.0	mg/Kg	10			20B	Soluble
Mg	8.6		2.0	2.0	mg/Kg	10			20B	Soluble
Sodium Adsorption Ratio	3.1		1.2	1.2	No Unit	10			20B	Soluble
Barium	130	B	0.84	0.087	mg/Kg	1		✱	6010C	Total/NA
Cadmium	0.22	J F2	0.42	0.034	mg/Kg	1		✱	6010C	Total/NA
Chromium	15		1.3	0.049	mg/Kg	1		✱	6010C	Total/NA
Lead	15		0.76	0.26	mg/Kg	1		✱	6010C	Total/NA
Boron	13	B	8.4	0.82	mg/Kg	1		✱	6010C	Total/NA
Calcium	22000	B	42	12	mg/Kg	1		✱	6010C	Total/NA
Copper	13		1.7	0.18	mg/Kg	1		✱	6010C	Total/NA
Magnesium	9500	B	17	3.1	mg/Kg	1		✱	6010C	Total/NA
Nickel	15		3.4	0.11	mg/Kg	1		✱	6010C	Total/NA
Sodium	250	J B F2	420	50	mg/Kg	1		✱	6010C	Total/NA
Zinc	62		2.5	0.33	mg/Kg	1		✱	6010C	Total/NA
Arsenic	7.1		0.53	0.045	mg/Kg	1		✱	6020A	Total/NA
Mercury	0.024		0.023	0.0075	mg/Kg	1		✱	7471A	Total/NA
Chromium, hex	5.8	J	6.1	2.4	mg/Kg	1		✱	7196A	Total/NA
Chromium, trivalent	9.2		6.2	2.5	mg/Kg	1		✱	7196A	Total/NA
pH adj. to 25 deg C	8.4	HF	0.1	0.1	SU	1			9045D	Soluble
Temperature	21.5	HF	1.0	1.0	Degrees C	1			9045D	Soluble
Electrical Conductivity	0.38		0.010	0.010	mmhos/cm	1			9050A	Soluble

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
Benzene	11		2.3	0.41	mg/Kg	10		✱	8260B	Total/NA
Ethylbenzene	19		2.3	0.31	mg/Kg	10		✱	8260B	Total/NA
Toluene	41		2.3	0.35	mg/Kg	10		✱	8260B	Total/NA
m-Xylene & p-Xylene	86		2.3	0.71	mg/Kg	10		✱	8260B	Total/NA
o-Xylene	34		1.1	0.32	mg/Kg	10		✱	8260B	Total/NA
Xylenes, Total	120		2.3	0.32	mg/Kg	10		✱	8260B	Total/NA
Benzo[b]fluoranthene	0.13	J	0.24	0.059	mg/Kg	40		✱	8270D SIM	Total/NA
Chrysene	1.5		0.24	0.049	mg/Kg	40		✱	8270D SIM	Total/NA
Fluorene	1.9		0.24	0.023	mg/Kg	40		✱	8270D SIM	Total/NA
Pyrene	0.75	B	0.24	0.054	mg/Kg	40		✱	8270D SIM	Total/NA
Naphthalene - DL	12		0.61	0.040	mg/Kg	100		✱	8270D SIM	Total/NA
GRO (C6-C10)	7800		240	64	mg/Kg	200		✱	8015C	Total/NA
Na	87		10	10	mg/Kg	10			20B	Soluble
Ca	310		2.0	2.0	mg/Kg	10			20B	Soluble
Mg	57		2.0	2.0	mg/Kg	10			20B	Soluble
Sodium Adsorption Ratio	1.2		1.2	1.2	No Unit	10			20B	Soluble
Barium	100	B	0.89	0.092	mg/Kg	1		✱	6010C	Total/NA
Cadmium	0.20	J	0.44	0.036	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: 280-94768-1

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
Chromium	12		1.3	0.051	mg/Kg	1		✱	6010C	Total/NA
Lead	12		0.80	0.27	mg/Kg	1		✱	6010C	Total/NA
Boron	10	B	8.9	0.87	mg/Kg	1		✱	6010C	Total/NA
Calcium	19000	B	44	12	mg/Kg	1		✱	6010C	Total/NA
Copper	11		1.8	0.19	mg/Kg	1		✱	6010C	Total/NA
Magnesium	8600	B	18	3.3	mg/Kg	1		✱	6010C	Total/NA
Nickel	12		3.5	0.12	mg/Kg	1		✱	6010C	Total/NA
Sodium	200	J B	440	52	mg/Kg	1		✱	6010C	Total/NA
Zinc	51		2.7	0.35	mg/Kg	1		✱	6010C	Total/NA
Arsenic	5.7		0.64	0.054	mg/Kg	1		✱	6020A	Total/NA
Mercury	0.017	J	0.022	0.0070	mg/Kg	1		✱	7471A	Total/NA
Chromium, hex	5.8	J	6.0	2.4	mg/Kg	1		✱	7196A	Total/NA
Chromium, trivalent	6.2		6.1	2.5	mg/Kg	1		✱	7196A	Total/NA
pH adj. to 25 deg C	8.5	HF	0.1	0.1	SU	1			9045D	Soluble
Temperature	21.9	HF	1.0	1.0	Degrees C	1			9045D	Soluble
Electrical Conductivity	0.38		0.010	0.010	mmhos/cm	1			9050A	Soluble

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
Benzene	0.0034	J	0.0059	0.00056	mg/Kg	1		✱	8260B	Total/NA
Ethylbenzene	0.0016	J	0.0059	0.00079	mg/Kg	1		✱	8260B	Total/NA
Toluene	0.0062		0.0059	0.00082	mg/Kg	1		✱	8260B	Total/NA
m-Xylene & p-Xylene	0.0052		0.0030	0.0012	mg/Kg	1		✱	8260B	Total/NA
o-Xylene	0.0024	J	0.0030	0.00072	mg/Kg	1		✱	8260B	Total/NA
Xylenes, Total	0.0076		0.0059	0.00072	mg/Kg	1		✱	8260B	Total/NA
Naphthalene	0.0027	J	0.0056	0.00036	mg/Kg	1		✱	8270D SIM	Total/NA
DRO (C10-C28)	4.5		4.2	0.72	mg/Kg	1		✱	8015C	Total/NA
Na	380		10	10	mg/Kg	10			20B	Soluble
Ca	97		2.0	2.0	mg/Kg	10			20B	Soluble
Mg	20		2.0	2.0	mg/Kg	10			20B	Soluble
Sodium Adsorption Ratio	9.1		1.2	1.2	No Unit	10			20B	Soluble
Barium	120	B	0.97	0.10	mg/Kg	1		✱	6010C	Total/NA
Cadmium	0.21	J	0.48	0.040	mg/Kg	1		✱	6010C	Total/NA
Chromium	14		1.5	0.056	mg/Kg	1		✱	6010C	Total/NA
Lead	14		0.87	0.30	mg/Kg	1		✱	6010C	Total/NA
Boron	11	B	9.7	0.95	mg/Kg	1		✱	6010C	Total/NA
Calcium	23000	B	48	14	mg/Kg	1		✱	6010C	Total/NA
Copper	13		1.9	0.21	mg/Kg	1		✱	6010C	Total/NA
Magnesium	10000	B	19	3.6	mg/Kg	1		✱	6010C	Total/NA
Nickel	13		3.9	0.13	mg/Kg	1		✱	6010C	Total/NA
Sodium	550	B	480	57	mg/Kg	1		✱	6010C	Total/NA
Zinc	57		2.9	0.38	mg/Kg	1		✱	6010C	Total/NA
Arsenic	7.2		0.49	0.041	mg/Kg	1		✱	6020A	Total/NA
Mercury	0.013	J	0.023	0.0074	mg/Kg	1		✱	7471A	Total/NA
Chromium, hex	7.3	F1	5.7	2.3	mg/Kg	1		✱	7196A	Total/NA
Chromium, trivalent	6.7		5.8	2.3	mg/Kg	1		✱	7196A	Total/NA
pH adj. to 25 deg C	9.1	HF	0.1	0.1	SU	1			9045D	Soluble
Temperature	21.3	HF	1.0	1.0	Degrees C	1			9045D	Soluble
Electrical Conductivity	0.84		0.010	0.010	mmhos/cm	1			9050A	Soluble

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: 280-94768-1

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
Benzene	6.5		3.7	0.67	mg/Kg	10		✖	8260B	Total/NA
Ethylbenzene	19		3.7	0.51	mg/Kg	10		✖	8260B	Total/NA
Toluene	36		3.7	0.58	mg/Kg	10		✖	8260B	Total/NA
m-Xylene & p-Xylene	89		3.7	1.2	mg/Kg	10		✖	8260B	Total/NA
o-Xylene	37		1.9	0.52	mg/Kg	10		✖	8260B	Total/NA
Xylenes, Total	130		3.7	0.52	mg/Kg	10		✖	8260B	Total/NA
Benzo[b]fluoranthene	0.074	J	0.26	0.062	mg/Kg	40		✖	8270D SIM	Total/NA
Chrysene	1.0		0.26	0.051	mg/Kg	40		✖	8270D SIM	Total/NA
Fluorene	1.3		0.26	0.024	mg/Kg	40		✖	8270D SIM	Total/NA
Pyrene	0.46	B	0.26	0.056	mg/Kg	40		✖	8270D SIM	Total/NA
Naphthalene - DL	10		0.64	0.042	mg/Kg	100		✖	8270D SIM	Total/NA
GRO (C6-C10)	5000		120	33	mg/Kg	100		✖	8015C	Total/NA
DRO (C10-C28)	20000		210	35	mg/Kg	10		✖	8015C	Total/NA
Na	130		10	10	mg/Kg	10			20B	Soluble
Ca	430		2.0	2.0	mg/Kg	10			20B	Soluble
Mg	89		2.0	2.0	mg/Kg	10			20B	Soluble
Sodium Adsorption Ratio	1.5		1.2	1.2	No Unit	10			20B	Soluble
Barium	91	B	1.0	0.11	mg/Kg	1		✖	6010C	Total/NA
Cadmium	0.17	J	0.51	0.042	mg/Kg	1		✖	6010C	Total/NA
Chromium	12		1.5	0.060	mg/Kg	1		✖	6010C	Total/NA
Lead	12		0.92	0.32	mg/Kg	1		✖	6010C	Total/NA
Boron	10	B	10	1.0	mg/Kg	1		✖	6010C	Total/NA
Calcium	19000	B	51	14	mg/Kg	1		✖	6010C	Total/NA
Copper	11		2.1	0.22	mg/Kg	1		✖	6010C	Total/NA
Magnesium	8500	B	21	3.8	mg/Kg	1		✖	6010C	Total/NA
Nickel	11		4.1	0.14	mg/Kg	1		✖	6010C	Total/NA
Sodium	250	J B	510	61	mg/Kg	1		✖	6010C	Total/NA
Zinc	49		3.1	0.41	mg/Kg	1		✖	6010C	Total/NA
Arsenic	5.9		0.54	0.045	mg/Kg	1		✖	6020A	Total/NA
Mercury	0.012	J	0.026	0.0085	mg/Kg	1		✖	7471A	Total/NA
Chromium, hex	6.2	J	6.5	2.6	mg/Kg	1		✖	7196A	Total/NA
Chromium, trivalent	5.8	J	6.5	2.6	mg/Kg	1		✖	7196A	Total/NA
pH adj. to 25 deg C	8.0	HF	0.1	0.1	SU	1			9045D	Soluble
Temperature	22.1	HF	1.0	1.0	Degrees C	1			9045D	Soluble
Electrical Conductivity	0.53		0.010	0.010	mmhos/cm	1			9050A	Soluble

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
Benzene	0.0019	J	0.0048	0.00045	mg/Kg	1		✖	8260B	Total/NA
Ethylbenzene	0.0015	J	0.0048	0.00064	mg/Kg	1		✖	8260B	Total/NA
Toluene	0.0039	J	0.0048	0.00066	mg/Kg	1		✖	8260B	Total/NA
m-Xylene & p-Xylene	0.0059		0.0024	0.0010	mg/Kg	1		✖	8260B	Total/NA
o-Xylene	0.0031		0.0024	0.00059	mg/Kg	1		✖	8260B	Total/NA
Xylenes, Total	0.0090		0.0048	0.00059	mg/Kg	1		✖	8260B	Total/NA
Benzo[a]anthracene	0.00096	J	0.0053	0.00096	mg/Kg	1		✖	8270D SIM	Total/NA
Benzo[a]pyrene	0.0014	J	0.0053	0.00079	mg/Kg	1		✖	8270D SIM	Total/NA
Benzo[b]fluoranthene	0.0029	J	0.0053	0.0013	mg/Kg	1		✖	8270D SIM	Total/NA
Benzo[k]fluoranthene	0.0014	J	0.0053	0.0011	mg/Kg	1		✖	8270D SIM	Total/NA
Chrysene	0.0032	J	0.0053	0.0011	mg/Kg	1		✖	8270D SIM	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: 280-94768-1

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
Fluoranthene	0.0021	J B	0.0053	0.0011	mg/Kg	1		✱	8270D SIM	Total/NA
Fluorene	0.0013	J	0.0053	0.00050	mg/Kg	1		✱	8270D SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.0023	J	0.0053	0.0012	mg/Kg	1		✱	8270D SIM	Total/NA
Naphthalene	0.014		0.0053	0.00035	mg/Kg	1		✱	8270D SIM	Total/NA
Pyrene	0.0031	J B	0.0053	0.0012	mg/Kg	1		✱	8270D SIM	Total/NA
DRO (C10-C28)	10		4.1	0.70	mg/Kg	1		✱	8015C	Total/NA
Na	36		10	10	mg/Kg	10			20B	Soluble
Ca	260		2.0	2.0	mg/Kg	10			20B	Soluble
Mg	50		2.0	2.0	mg/Kg	10			20B	Soluble
Barium	120	B	0.98	0.10	mg/Kg	1		✱	6010C	Total/NA
Cadmium	0.17	J	0.49	0.040	mg/Kg	1		✱	6010C	Total/NA
Chromium	12		1.5	0.057	mg/Kg	1		✱	6010C	Total/NA
Lead	12		0.88	0.30	mg/Kg	1		✱	6010C	Total/NA
Boron	10	B	9.8	0.96	mg/Kg	1		✱	6010C	Total/NA
Calcium	17000	B	49	14	mg/Kg	1		✱	6010C	Total/NA
Copper	10		2.0	0.21	mg/Kg	1		✱	6010C	Total/NA
Magnesium	7500	B	20	3.6	mg/Kg	1		✱	6010C	Total/NA
Nickel	12		3.9	0.13	mg/Kg	1		✱	6010C	Total/NA
Sodium	400	J B	490	58	mg/Kg	1		✱	6010C	Total/NA
Zinc	49		2.9	0.39	mg/Kg	1		✱	6010C	Total/NA
Arsenic	6.3		0.51	0.043	mg/Kg	1		✱	6020A	Total/NA
Mercury	0.018	J	0.019	0.0063	mg/Kg	1		✱	7471A	Total/NA
Chromium, hex	5.5		5.3	2.1	mg/Kg	1		✱	7196A	Total/NA
Chromium, trivalent	6.5		5.4	2.2	mg/Kg	1		✱	7196A	Total/NA
pH adj. to 25 deg C	9.5	HF	0.1	0.1	SU	1			9045D	Soluble
Temperature	21.3	HF	1.0	1.0	Degrees C	1			9045D	Soluble
Electrical Conductivity	0.48		0.010	0.010	mmhos/cm	1			9050A	Soluble

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
Benzene	2.2	J	2.3	0.42	mg/Kg	10		✱	8260B	Total/NA
Ethylbenzene	6.3		2.3	0.31	mg/Kg	10		✱	8260B	Total/NA
Toluene	12		2.3	0.36	mg/Kg	10		✱	8260B	Total/NA
m-Xylene & p-Xylene	30		2.3	0.72	mg/Kg	10		✱	8260B	Total/NA
o-Xylene	12		1.2	0.32	mg/Kg	10		✱	8260B	Total/NA
Xylenes, Total	42		2.3	0.32	mg/Kg	10		✱	8260B	Total/NA
Chrysene	0.23		0.12	0.024	mg/Kg	20		✱	8270D SIM	Total/NA
Fluorene	0.31		0.12	0.011	mg/Kg	20		✱	8270D SIM	Total/NA
Naphthalene	2.0		0.12	0.0079	mg/Kg	20		✱	8270D SIM	Total/NA
Pyrene	0.11	J B	0.12	0.027	mg/Kg	20		✱	8270D SIM	Total/NA
GRO (C6-C10)	280		11	3.0	mg/Kg	10		✱	8015C	Total/NA
DRO (C10-C28)	1300		9.4	1.6	mg/Kg	2		✱	8015C	Total/NA
Na	130		10	10	mg/Kg	10			20B	Soluble
Ca	390		2.0	2.0	mg/Kg	10			20B	Soluble
Mg	78		2.0	2.0	mg/Kg	10			20B	Soluble
Sodium Adsorption Ratio	1.5		1.2	1.2	No Unit	10			20B	Soluble
Barium	110	B	0.87	0.090	mg/Kg	1		✱	6010C	Total/NA
Cadmium	0.19	J	0.43	0.036	mg/Kg	1		✱	6010C	Total/NA
Chromium	11		1.3	0.050	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: 280-94768-1

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
Lead	12		0.78	0.27	mg/Kg	1		✖	6010C	Total/NA
Boron	9.0	B	8.7	0.85	mg/Kg	1		✖	6010C	Total/NA
Calcium	17000	B	43	12	mg/Kg	1		✖	6010C	Total/NA
Copper	9.8		1.7	0.19	mg/Kg	1		✖	6010C	Total/NA
Magnesium	7700	B	17	3.2	mg/Kg	1		✖	6010C	Total/NA
Nickel	12		3.5	0.11	mg/Kg	1		✖	6010C	Total/NA
Sodium	130	J B	430	51	mg/Kg	1		✖	6010C	Total/NA
Zinc	50		2.6	0.34	mg/Kg	1		✖	6010C	Total/NA
Arsenic	6.4		0.50	0.042	mg/Kg	1		✖	6020A	Total/NA
Mercury	0.0078	J	0.023	0.0073	mg/Kg	1		✖	7471A	Total/NA
Chromium, hex	4.6	J	6.0	2.4	mg/Kg	1		✖	7196A	Total/NA
Chromium, trivalent	6.4		6.1	2.4	mg/Kg	1		✖	7196A	Total/NA
pH adj. to 25 deg C	8.5	HF	0.1	0.1	SU	1			9045D	Soluble
Temperature	22.2	HF	1.0	1.0	Degrees C	1			9045D	Soluble
Electrical Conductivity	0.32		0.010	0.010	mmhos/cm	1			9050A	Soluble

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
Benzene	5.5		2.7	0.49	mg/Kg	10		✖	8260B	Total/NA
Ethylbenzene	16		2.7	0.37	mg/Kg	10		✖	8260B	Total/NA
Toluene	31		2.7	0.42	mg/Kg	10		✖	8260B	Total/NA
m-Xylene & p-Xylene	74		2.7	0.84	mg/Kg	10		✖	8260B	Total/NA
o-Xylene	31		1.3	0.38	mg/Kg	10		✖	8260B	Total/NA
Xylenes, Total	110		2.7	0.38	mg/Kg	10		✖	8260B	Total/NA
Benzo[b]fluoranthene	0.098	J	0.25	0.059	mg/Kg	40		✖	8270D SIM	Total/NA
Chrysene	1.2		0.25	0.049	mg/Kg	40		✖	8270D SIM	Total/NA
Fluorene	1.5		0.25	0.023	mg/Kg	40		✖	8270D SIM	Total/NA
Pyrene	0.56	B	0.25	0.054	mg/Kg	40		✖	8270D SIM	Total/NA
Naphthalene - DL	12		0.61	0.040	mg/Kg	100		✖	8270D SIM	Total/NA
GRO (C6-C10)	8300		260	71	mg/Kg	200		✖	8015C	Total/NA
DRO (C10-C28)	28000		200	35	mg/Kg	10		✖	8015C	Total/NA
Na	250		10	10	mg/Kg	10			20B	Soluble
Ca	75		2.0	2.0	mg/Kg	10			20B	Soluble
Mg	16		2.0	2.0	mg/Kg	10			20B	Soluble
Sodium Adsorption Ratio	6.8		1.2	1.2	No Unit	10			20B	Soluble
Barium	99	B	0.91	0.094	mg/Kg	1		✖	6010C	Total/NA
Cadmium	0.17	J	0.45	0.037	mg/Kg	1		✖	6010C	Total/NA
Chromium	13		1.4	0.053	mg/Kg	1		✖	6010C	Total/NA
Lead	13		0.82	0.28	mg/Kg	1		✖	6010C	Total/NA
Boron	9.4	B	9.1	0.89	mg/Kg	1		✖	6010C	Total/NA
Calcium	21000	B	45	13	mg/Kg	1		✖	6010C	Total/NA
Copper	12		1.8	0.20	mg/Kg	1		✖	6010C	Total/NA
Magnesium	9600	B	18	3.4	mg/Kg	1		✖	6010C	Total/NA
Nickel	13		3.6	0.12	mg/Kg	1		✖	6010C	Total/NA
Sodium	270	J B	450	54	mg/Kg	1		✖	6010C	Total/NA
Zinc	54		2.7	0.36	mg/Kg	1		✖	6010C	Total/NA
Arsenic	6.8		0.67	0.056	mg/Kg	1		✖	6020A	Total/NA
Mercury	0.017	J	0.024	0.0077	mg/Kg	1		✖	7471A	Total/NA
Chromium, hex	5.8	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: 280-94768-1

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
Chromium, trivalent	7.2		6.5	2.6	mg/Kg	1	☼	7196A	Total/NA
pH adj. to 25 deg C	8.2	HF	0.1	0.1	SU	1		9045D	Soluble
Temperature	22.5	HF	1.0	1.0	Degrees C	1		9045D	Soluble
Electrical Conductivity	0.47		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: 280-94768-1

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: 280-94768-1

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)	117		58 - 140	03/10/17 14:10	03/13/17 18:12	1
Toluene-d8 (Surr)	94		80 - 126	03/10/17 14:10	03/13/17 18:12	1
4-Bromofluorobenzene (Surr)	98		76 - 127	03/10/17 14:10	03/13/17 18:12	1
Dibromofluoromethane (Surr)	109		75 - 121	03/10/17 14:10	03/13/17 18:12	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)	108	D	52 - 135	03/10/17 14:20	03/14/17 11:02	10
Toluene-d8 (Surr)	134	D	65 - 135	03/10/17 14:20	03/14/17 11:02	10
4-Bromofluorobenzene (Surr)	131	D	65 - 135	03/10/17 14:20	03/14/17 11:02	10
Dibromofluoromethane (Surr)	90	D	65 - 135	03/10/17 14:20	03/14/17 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)	130		58 - 140	03/10/17 15:45	03/13/17 17:30	1
Toluene-d8 (Surr)	108		80 - 126	03/10/17 15:45	03/13/17 17:30	1
4-Bromofluorobenzene (Surr)	107		76 - 127	03/10/17 15:45	03/13/17 17:30	1
Dibromofluoromethane (Surr)	120		75 - 121	03/10/17 15:45	03/13/17 17:30	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 - 135	03/10/17 15:55	03/14/17 11:22	10
Toluene-d8 (Surr)	147	X D	65 - 135	03/10/17 15:55	03/14/17 11:22	10
4-Bromofluorobenzene (Surr)	128	D	65 - 135	03/10/17 15:55	03/14/17 11:22	10
Dibromofluoromethane (Surr)	86	D	65 - 135	03/10/17 15:55	03/14/17 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)	108		58 - 140	03/11/17 09:20	03/13/17 18:32	1
Toluene-d8 (Surr)	89		80 - 126	03/11/17 09:20	03/13/17 18:32	1
4-Bromofluorobenzene (Surr)	93		76 - 127	03/11/17 09:20	03/13/17 18:32	1
Dibromofluoromethane (Surr)	102		75 - 121	03/11/17 09:20	03/13/17 18:32	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 - 135	03/11/17 09:35	03/14/17 11:41	10
Toluene-d8 (Surr)	150	X D	65 - 135	03/11/17 09:35	03/14/17 11:41	10
4-Bromofluorobenzene (Surr)	146	X D	65 - 135	03/11/17 09:35	03/14/17 11:41	10
Dibromofluoromethane (Surr)	101	D	65 - 135	03/11/17 09:35	03/14/17 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 - 135	03/10/17 00:00	03/14/17 12:01	10
Toluene-d8 (Surr)	150	X D	65 - 135	03/10/17 00:00	03/14/17 12:01	10
4-Bromofluorobenzene (Surr)	137	X D	65 - 135	03/10/17 00:00	03/14/17 12:01	10
Dibromofluoromethane (Surr)	90	D	65 - 135	03/10/17 00:00	03/14/17 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-Fluorobiphenyl	74		39 - 120	03/12/17 19:15	03/14/17 16:38	1
Nitrobenzene-d5	93		42 - 120	03/12/17 19:15	03/14/17 16:38	1
Terphenyl-d14	62		35 - 124	03/12/17 19:15	03/14/17 16:38	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-Fluorobiphenyl	254	X D	39 - 120				03/12/17 19:15	03/14/17 17:04	40
Nitrobenzene-d5	30225	X D	42 - 120				03/12/17 19:15	03/14/17 17:04	40
Terphenyl-d14	366	X D	35 - 124				03/12/17 19:15	03/14/17 17:04	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-Fluorobiphenyl	79		39 - 120				03/12/17 19:15	03/14/17 17:29	1
Nitrobenzene-d5	94		42 - 120				03/12/17 19:15	03/14/17 17:29	1
Terphenyl-d14	71		35 - 124				03/12/17 19:15	03/14/17 17:29	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-Fluorobiphenyl	194	X D	39 - 120	03/12/17 19:15	03/14/17 18:47	40
Nitrobenzene-d5	23784	X D	42 - 120	03/12/17 19:15	03/14/17 18:47	40
Terphenyl-d14	194	X D	35 - 124	03/12/17 19:15	03/14/17 18:47	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-Fluorobiphenyl	77		39 - 120	03/12/17 19:15	03/14/17 19:13	1
Nitrobenzene-d5	93		42 - 120	03/12/17 19:15	03/14/17 19:13	1
Terphenyl-d14	72		35 - 124	03/12/17 19:15	03/14/17 19:13	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-Fluorobiphenyl	111	D	39 - 120	03/12/17 19:15	03/14/17 19:39	20
Nitrobenzene-d5	4981	X D	42 - 120	03/12/17 19:15	03/14/17 19:39	20
Terphenyl-d14	112	D	35 - 124	03/12/17 19:15	03/14/17 19:39	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-Fluorobiphenyl	207	X D	39 - 120				03/12/17 19:15	03/14/17 20:04	40
Nitrobenzene-d5	23899	X D	42 - 120				03/12/17 19:15	03/14/17 20:04	40
Terphenyl-d14	296	X D	35 - 124				03/12/17 19:15	03/14/17 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-Fluorobiphenyl	314	X D	39 - 120				03/12/17 19:15	03/14/17 20:56	100
Nitrobenzene-d5	32505	X D	42 - 120				03/12/17 19:15	03/14/17 20:56	100
Terphenyl-d14	320	X D	35 - 124				03/12/17 19:15	03/14/17 20:56	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-Fluorobiphenyl	250	X D	39 - 120				03/12/17 19:15	03/14/17 21:22	100
Nitrobenzene-d5	25511	X D	42 - 120				03/12/17 19:15	03/14/17 21:22	100
Terphenyl-d14	0	X D	35 - 124				03/12/17 19:15	03/14/17 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-Fluorobiphenyl	292	X D	39 - 120				03/12/17 19:15	03/14/17 22:13	100
Nitrobenzene-d5	30607	X D	42 - 120				03/12/17 19:15	03/14/17 22:13	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	304	X D	35 - 124	03/12/17 19:15	03/14/17 22:13	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	89		77 - 123				03/10/17 14:10	03/15/17 01:23	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	9077	D X	77 - 123				03/10/17 14:20	03/16/17 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	97		77 - 123				03/10/17 15:45	03/16/17 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	2910	D X	77 - 123				03/10/17 15:55	03/16/17 13:24	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	85		77 - 123				03/11/17 09:20	03/16/17 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

Lab Sample ID: 280-94768-6

Matrix: Solid

Percent Solids: 82.3

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 X	77 - 123	03/11/17 09:35	03/16/17 02:39	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
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	8128	D X	77 - 123	03/11/17 00:00	03/16/17 03:03	200

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

Lab Sample ID: 280-94768-1

Matrix: Solid

Percent Solids: 80.8

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)	60		49 - 115	03/12/17 17:57	03/15/17 19:17	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
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)	73		49 - 115	03/12/17 17:57	03/15/17 20:16	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
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)	1377	X D	49 - 115	03/12/17 17:57	03/15/17 20:45	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
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)	72		49 - 115	03/12/17 17:57	03/15/17 21:14	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 (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)	108		49 - 115	03/12/17 17:57	03/15/17 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)	2060	X D	49 - 115	03/12/17 17:57	03/15/17 23:09	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

Lab Sample ID: 280-94768-2

Matrix: Solid

Percent Solids: 81.3

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

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
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

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
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

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
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

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
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

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
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

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 Recovery (Acceptance Limits)			
		12DCE (58-140)	TOL (80-126)	BFB (76-127)	DBFM (75-121)
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 Recovery (Acceptance Limits)			
		12DCE (52-135)	TOL (65-135)	BFB (65-135)	DBFM (65-135)
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: 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)
280-94768-1	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: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

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)
280-94768-6	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/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)	
280-94768-1	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/FID -Modified (Diesel Range Organics)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		OTPH1 (49-115)	
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)

1
2
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15

QC 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)

Lab Sample ID: MB 280-365288/3-A

Matrix: Solid

Analysis Batch: 365292

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365288

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0050	0.00047	mg/Kg		03/13/17 11:00	03/13/17 12:43	1
Ethylbenzene	ND		0.0050	0.00067	mg/Kg		03/13/17 11:00	03/13/17 12:43	1
Toluene	ND		0.0050	0.00069	mg/Kg		03/13/17 11:00	03/13/17 12:43	1
m-Xylene & p-Xylene	ND		0.0025	0.0010	mg/Kg		03/13/17 11:00	03/13/17 12:43	1
o-Xylene	ND		0.0025	0.00061	mg/Kg		03/13/17 11:00	03/13/17 12:43	1
Xylenes, Total	ND		0.0050	0.00061	mg/Kg		03/13/17 11:00	03/13/17 12:43	1

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-A

Matrix: Solid

Analysis Batch: 365292

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365288

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzene	0.0500	0.0425		mg/Kg		85	75 - 135
Ethylbenzene	0.0500	0.0397		mg/Kg		79	73 - 125
Toluene	0.0500	0.0423		mg/Kg		85	77 - 122
m-Xylene & p-Xylene	0.0500	0.0392		mg/Kg		78	77 - 135
o-Xylene	0.0500	0.0406		mg/Kg		81	75 - 135
Xylenes, Total	0.100	0.0798		mg/Kg		80	76 - 135

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-A

Matrix: Solid

Analysis Batch: 365292

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 365288

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.0453		mg/Kg		91	75 - 135	6	20
Ethylbenzene	0.0500	0.0415		mg/Kg		83	73 - 125	4	20
Toluene	0.0500	0.0455		mg/Kg		91	77 - 122	7	20
m-Xylene & p-Xylene	0.0500	0.0410		mg/Kg		82	77 - 135	4	20
o-Xylene	0.0500	0.0429		mg/Kg		86	75 - 135	5	20
Xylenes, Total	0.100	0.0839		mg/Kg		84	76 - 135	5	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 Denver

QC 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) (Continued)

Lab Sample ID: LCSD 280-365288/2-A
Matrix: Solid
Analysis Batch: 365292

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 365288

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Dibromofluoromethane (Surr)	102		75 - 121

Lab Sample ID: MB 280-365366/1-A
Matrix: Solid
Analysis Batch: 365527

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 365366

Analyte	MB	MB							
	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.25	0.045	mg/Kg		03/14/17 08:56	03/14/17 10:23	1
Ethylbenzene	ND		0.25	0.034	mg/Kg		03/14/17 08:56	03/14/17 10:23	1
Toluene	ND		0.25	0.039	mg/Kg		03/14/17 08:56	03/14/17 10:23	1
m-Xylene & p-Xylene	ND		0.25	0.079	mg/Kg		03/14/17 08:56	03/14/17 10:23	1
o-Xylene	ND		0.13	0.035	mg/Kg		03/14/17 08:56	03/14/17 10:23	1
Xylenes, Total	ND		0.25	0.035	mg/Kg		03/14/17 08:56	03/14/17 10:23	1
Surrogate	MB	MB					Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier	Limits						
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-A
Matrix: Solid
Analysis Batch: 365527

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 365366
%Rec.

Analyte	Spike	LCS	LCS						
	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Benzene	2.01	1.93		mg/Kg		96	65 - 135		
Ethylbenzene	2.01	2.06		mg/Kg		103	65 - 135		
Toluene	2.01	2.03		mg/Kg		101	65 - 135		
m-Xylene & p-Xylene	2.01	2.07		mg/Kg		103	65 - 135		
o-Xylene	2.01	2.07		mg/Kg		103	65 - 135		
Xylenes, Total	4.01	4.14		mg/Kg		103	65 - 135		
Surrogate	LCS	LCS							
	%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: 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	MB							
	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0050	0.00016	mg/Kg		03/12/17 19:15	03/14/17 14:29	1
Anthracene	0.000752	J	0.0050	0.00072	mg/Kg		03/12/17 19:15	03/14/17 14:29	1

TestAmerica Denver

QC 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)

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
Benzo[a]anthracene	ND		0.0050	0.00090	mg/Kg		03/12/17 19:15	03/14/17 14:29	1
Benzo[a]pyrene	ND		0.0050	0.00074	mg/Kg		03/12/17 19:15	03/14/17 14:29	1
Benzo[b]fluoranthene	ND		0.0050	0.0012	mg/Kg		03/12/17 19:15	03/14/17 14:29	1
Benzo[k]fluoranthene	ND		0.0050	0.0010	mg/Kg		03/12/17 19:15	03/14/17 14:29	1
Chrysene	ND		0.0050	0.0010	mg/Kg		03/12/17 19:15	03/14/17 14:29	1
Dibenz(a,h)anthracene	ND		0.0050	0.0013	mg/Kg		03/12/17 19:15	03/14/17 14:29	1
Fluoranthene	0.00186	J	0.0050	0.0010	mg/Kg		03/12/17 19:15	03/14/17 14:29	1
Fluorene	ND		0.0050	0.00047	mg/Kg		03/12/17 19:15	03/14/17 14:29	1
Indeno[1,2,3-cd]pyrene	ND		0.0050	0.0011	mg/Kg		03/12/17 19:15	03/14/17 14:29	1
Naphthalene	ND		0.0050	0.00033	mg/Kg		03/12/17 19:15	03/14/17 14:29	1
Pyrene	0.00240	J	0.0050	0.0011	mg/Kg		03/12/17 19:15	03/14/17 14:29	1

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 280-365159/2-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
Acenaphthene	0.0300	0.0293		mg/Kg		98	35 - 120
Anthracene	0.0300	0.0299		mg/Kg		100	43 - 120
Benzo[a]anthracene	0.0300	0.0322		mg/Kg		107	36 - 120
Benzo[a]pyrene	0.0300	0.0327		mg/Kg		109	20 - 120
Benzo[b]fluoranthene	0.0300	0.0322		mg/Kg		107	37 - 120
Benzo[k]fluoranthene	0.0300	0.0301		mg/Kg		100	46 - 120
Chrysene	0.0300	0.0324		mg/Kg		108	34 - 120
Dibenz(a,h)anthracene	0.0300	0.0298		mg/Kg		99	20 - 120
Fluoranthene	0.0300	0.0292		mg/Kg		97	45 - 120
Fluorene	0.0300	0.0304		mg/Kg		101	44 - 120
Indeno[1,2,3-cd]pyrene	0.0300	0.0306		mg/Kg		102	20 - 127
Naphthalene	0.0300	0.0313		mg/Kg		104	44 - 120
Pyrene	0.0300	0.0279		mg/Kg		93	43 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	81		39 - 120
Nitrobenzene-d5	92		42 - 120
Terphenyl-d14	77		35 - 124

Lab Sample ID: 280-94768-3 MS

Matrix: Solid

Analysis Batch: 365407

Client Sample ID: RC4-HEL08-0.25

Prep Type: Total/NA

Prep Batch: 365159

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	ND		0.0334	0.0306		mg/Kg	☼	92	35 - 120
Anthracene	ND		0.0334	0.0315		mg/Kg	☼	94	43 - 120

TestAmerica Denver

QC 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)

Lab Sample ID: 280-94768-3 MS

Matrix: Solid

Analysis Batch: 365407

Client Sample ID: RC4-HEL08-0.25

Prep Type: Total/NA

Prep Batch: 365159

	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Benzo[a]anthracene	ND		0.0334	0.0349		mg/Kg	☼	105	36 - 120		
Benzo[a]pyrene	ND		0.0334	0.0400		mg/Kg	☼	120	20 - 120		
Benzo[b]fluoranthene	ND		0.0334	0.0379		mg/Kg	☼	114	37 - 120		
Benzo[k]fluoranthene	ND		0.0334	0.0357		mg/Kg	☼	107	46 - 120		
Chrysene	ND		0.0334	0.0350		mg/Kg	☼	105	34 - 120		
Dibenz(a,h)anthracene	ND		0.0334	0.0380		mg/Kg	☼	114	20 - 120		
Fluoranthene	ND		0.0334	0.0298		mg/Kg	☼	89	45 - 120		
Fluorene	ND		0.0334	0.0299		mg/Kg	☼	90	44 - 120		
Indeno[1,2,3-cd]pyrene	ND		0.0334	0.0404		mg/Kg	☼	121	20 - 127		
Naphthalene	0.0027	J	0.0334	0.0354		mg/Kg	☼	98	44 - 120		
Pyrene	ND		0.0334	0.0281		mg/Kg	☼	84	43 - 120		

Lab Sample ID: 280-94768-3 MSD

Matrix: Solid

Analysis Batch: 365407

Client Sample ID: RC4-HEL08-0.25

Prep Type: Total/NA

Prep Batch: 365159

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		Limit
Acenaphthene	ND		0.0338	0.0278		mg/Kg	☼	82	35 - 120	10	50
Anthracene	ND		0.0338	0.0280		mg/Kg	☼	83	43 - 120	12	50
Benzo[a]anthracene	ND		0.0338	0.0309		mg/Kg	☼	91	36 - 120	12	40
Benzo[a]pyrene	ND		0.0338	0.0345		mg/Kg	☼	102	20 - 120	15	30
Benzo[b]fluoranthene	ND		0.0338	0.0328		mg/Kg	☼	97	37 - 120	14	28
Benzo[k]fluoranthene	ND		0.0338	0.0312		mg/Kg	☼	92	46 - 120	13	28
Chrysene	ND		0.0338	0.0306		mg/Kg	☼	91	34 - 120	13	41
Dibenz(a,h)anthracene	ND		0.0338	0.0332		mg/Kg	☼	98	20 - 120	14	25
Fluoranthene	ND		0.0338	0.0265		mg/Kg	☼	78	45 - 120	12	30
Fluorene	ND		0.0338	0.0273		mg/Kg	☼	81	44 - 120	9	50
Indeno[1,2,3-cd]pyrene	ND		0.0338	0.0339		mg/Kg	☼	100	20 - 127	18	50
Naphthalene	0.0027	J	0.0338	0.0306		mg/Kg	☼	83	44 - 120	14	50
Pyrene	ND		0.0338	0.0249		mg/Kg	☼	74	43 - 120	12	30

TestAmerica Denver

QC 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)

Lab Sample ID: MB 280-365286/1-A

Matrix: Solid

Analysis Batch: 365406

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365286

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.2	0.33	mg/Kg		03/13/17 16:02	03/15/17 00:09	1
Surrogate	MB %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-A

Matrix: Solid

Analysis Batch: 365406

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365286

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
GRO (C6-C10)	5.50	6.72		mg/Kg		122	85 - 153		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
a,a,a-Trifluorotoluene	92		77 - 123						

Lab Sample ID: LCSD 280-365286/3-A

Matrix: Solid

Analysis Batch: 365406

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 365286

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
GRO (C6-C10)	5.50	6.72		mg/Kg		122	85 - 153	0	30
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
a,a,a-Trifluorotoluene	90		77 - 123						

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

Lab Sample ID: MB 280-365157/1-B

Matrix: Solid

Analysis Batch: 365579

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365157

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		4.0	0.68	mg/Kg		03/12/17 17:57	03/15/17 18:19	1
Surrogate	MB %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 280-365157/2-B

Matrix: Solid

Analysis Batch: 365579

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365157

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
DRO (C10-C28)	66.7	57.1		mg/Kg		86	53 - 115		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
o-Terphenyl (Surr)	79		49 - 115						

TestAmerica Denver

QC 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) (Continued)

Lab Sample ID: 280-94768-5 MS

Matrix: Solid

Analysis Batch: 365579

Client Sample ID: RC4-HEL10-0.25

Prep Type: Total/NA

Prep Batch: 365157

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
DRO (C10-C28)	10		71.6	73.0		mg/Kg	☼	88	56 - 115
Surrogate	MS %Recovery	MS Qualifier	Limits						
o-Terphenyl (Surr)	75		49 - 115						

Lab Sample ID: 280-94768-5 MSD

Matrix: Solid

Analysis Batch: 365579

Client Sample ID: RC4-HEL10-0.25

Prep Type: Total/NA

Prep Batch: 365157

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
DRO (C10-C28)	10		70.7	68.3		mg/Kg	☼	82	56 - 115	7	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
o-Terphenyl (Surr)	79		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
Na	ND		10	10	mg/Kg		03/10/17 15:54	03/14/17 09:43	10
Ca	ND		2.0	2.0	mg/Kg		03/10/17 15:54	03/14/17 09:43	10
Mg	ND		2.0	2.0	mg/Kg		03/10/17 15:54	03/14/17 09:43	10
Sodium Adsorption Ratio	ND		1.2	1.2	No Unit		03/10/17 15:54	03/14/17 09:43	10

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 280-365211/1-A

Matrix: Solid

Analysis Batch: 365371

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365211

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.246	J	1.0	0.10	mg/Kg		03/13/17 14:35	03/14/17 02:32	1
Cadmium	ND		0.50	0.041	mg/Kg		03/13/17 14:35	03/14/17 02:32	1
Chromium	ND		1.5	0.058	mg/Kg		03/13/17 14:35	03/14/17 02:32	1
Lead	ND		0.90	0.31	mg/Kg		03/13/17 14:35	03/14/17 02:32	1
Boron	3.33	J	10	0.98	mg/Kg		03/13/17 14:35	03/14/17 02:32	1
Silver	ND		1.0	0.16	mg/Kg		03/13/17 14:35	03/14/17 02:32	1
Calcium	39.3	J	50	14	mg/Kg		03/13/17 14:35	03/14/17 02:32	1
Magnesium	13.5	J	20	3.7	mg/Kg		03/13/17 14:35	03/14/17 02:32	1
Nickel	ND		4.0	0.13	mg/Kg		03/13/17 14:35	03/14/17 02:32	1
Sodium	72.1	J	500	59	mg/Kg		03/13/17 14:35	03/14/17 02:32	1
Zinc	ND		3.0	0.40	mg/Kg		03/13/17 14:35	03/14/17 02:32	1

TestAmerica Denver

QC Sample Results

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

TestAmerica Job ID: 280-94768-1

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

Lab Sample ID: MB 280-365211/1-A

Matrix: Solid

Analysis Batch: 365530

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365211

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		1.5	0.86	mg/Kg		03/13/17 14:35	03/14/17 17:00	1
Copper	ND		2.0	0.22	mg/Kg		03/13/17 14:35	03/14/17 17:00	1

Lab Sample ID: LCS 280-365211/2-A

Matrix: Solid

Analysis Batch: 365371

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365211

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Barium	200	198		mg/Kg		99	87 - 112
Cadmium	10.0	9.46		mg/Kg		95	87 - 110
Chromium	20.0	19.7		mg/Kg		98	84 - 114
Lead	50.0	48.4		mg/Kg		97	86 - 110
Boron	100	94.9		mg/Kg		95	80 - 120
Silver	5.00	5.07		mg/Kg		101	87 - 114
Nickel	50.0	46.8		mg/Kg		94	87 - 110
Zinc	50.0	44.5		mg/Kg		89	76 - 114

Lab Sample ID: LCS 280-365211/2-A

Matrix: Solid

Analysis Batch: 365530

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365211

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Selenium	200	187		mg/Kg		93	83 - 110
Copper	25.0	24.7		mg/Kg		99	88 - 110

Lab Sample ID: 280-94768-1 MS

Matrix: Solid

Analysis Batch: 365371

Client Sample ID: RC4-HEL06-0.25

Prep Type: Total/NA

Prep Batch: 365211

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Barium	130	B	185	310		mg/Kg	☼	97	52 - 159
Cadmium	0.22	J F2	9.25	7.85		mg/Kg	☼	82	40 - 130
Chromium	15		18.5	42.1		mg/Kg	☼	149	70 - 200
Lead	15		46.2	50.8		mg/Kg	☼	78	70 - 200
Boron	13	B	92.5	92.7		mg/Kg	☼	87	80 - 120
Silver	ND	F2	4.62	4.18		mg/Kg	☼	90	75 - 141
Nickel	15		46.2	51.2		mg/Kg	☼	79	61 - 126
Zinc	62		46.2	100		mg/Kg	☼	82	70 - 200

Lab Sample ID: 280-94768-1 MS

Matrix: Solid

Analysis Batch: 365530

Client Sample ID: RC4-HEL06-0.25

Prep Type: Total/NA

Prep Batch: 365211

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Selenium	ND	F2	185	146		mg/Kg	☼	79	76 - 104
Copper	13		23.1	33.7		mg/Kg	☼	89	37 - 187

TestAmerica Denver

QC Sample Results

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

TestAmerica Job ID: 280-94768-1

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

Lab Sample ID: 280-94768-1 MSD

Matrix: Solid

Analysis Batch: 365371

Client Sample ID: RC4-HEL06-0.25

Prep Type: Total/NA

Prep Batch: 365211

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Barium	130	B	227	365		mg/Kg	☼	103	52 - 159	16	20
Cadmium	0.22	J F2	11.3	9.93	F2	mg/Kg	☼	86	40 - 130	23	20
Chromium	15		22.7	47.4		mg/Kg	☼	145	70 - 200	12	20
Lead	15		56.7	61.8		mg/Kg	☼	83	70 - 200	20	20
Boron	13	B	113	114		mg/Kg	☼	89	80 - 120	20	20
Silver	ND	F2	5.67	5.31	F2	mg/Kg	☼	94	75 - 141	24	20
Nickel	15		56.7	61.5		mg/Kg	☼	83	61 - 126	18	20
Zinc	62		56.7	113		mg/Kg	☼	89	70 - 200	12	20

Lab Sample ID: 280-94768-1 MSD

Matrix: Solid

Analysis Batch: 365530

Client Sample ID: RC4-HEL06-0.25

Prep Type: Total/NA

Prep Batch: 365211

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Selenium	ND	F2	227	184	F2	mg/Kg	☼	81	76 - 104	23	20
Copper	13		28.4	39.1		mg/Kg	☼	92	37 - 187	15	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 280-365212/1-A

Matrix: Solid

Analysis Batch: 365440

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365212

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.60	0.051	mg/Kg		03/13/17 14:35	03/14/17 11:45	1

Lab Sample ID: LCS 280-365212/2-A

Matrix: Solid

Analysis Batch: 365440

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365212

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	20.0	18.4		mg/Kg		92	83 - 111

Lab Sample ID: 280-94768-1 MS

Matrix: Solid

Analysis Batch: 365440

Client Sample ID: RC4-HEL06-0.25

Prep Type: Total/NA

Prep Batch: 365212

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	7.1		16.8	22.1		mg/Kg	☼	89	83 - 111

Lab Sample ID: 280-94768-1 MSD

Matrix: Solid

Analysis Batch: 365440

Client Sample ID: RC4-HEL06-0.25

Prep Type: Total/NA

Prep Batch: 365212

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	7.1		18.8	24.5		mg/Kg	☼	93	83 - 111	11	20

TestAmerica Denver

QC Sample Results

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

TestAmerica Job ID: 280-94768-1

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 280-365338/1-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	Unit	D	Prepared	Analyzed	Dil Fac
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
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.417	0.363		mg/Kg		87	87 - 111

Lab Sample ID: 280-94768-1 MS
Matrix: Solid
Analysis Batch: 365508

Client Sample ID: RC4-HEL06-0.25
Prep Type: Total/NA
Prep Batch: 365338
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.024		0.543	0.584		mg/Kg	✱	103	87 - 111

Lab Sample ID: 280-94768-1 MSD
Matrix: Solid
Analysis Batch: 365508

Client Sample ID: RC4-HEL06-0.25
Prep Type: Total/NA
Prep Batch: 365338
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.024		0.607	0.559		mg/Kg	✱	88	87 - 111	4	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 490-415128/1-A
Matrix: Solid
Analysis Batch: 415150

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 415128

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	ND		5.0	2.0	mg/Kg		03/16/17 20:44	03/17/17 00:15	1

Lab Sample ID: LCS 490-415128/3-A
Matrix: Solid
Analysis Batch: 415150

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 415128
%Rec.

Analyte	Spike Added	LCSI Result	LCSI Qualifier	Unit	D	%Rec	Limits
Chromium, hex	64.3	52.9		mg/Kg		82	80 - 120

Lab Sample ID: LCSS 490-415128/2-A
Matrix: Solid
Analysis Batch: 415150

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 415128
%Rec.

Analyte	Spike Added	LCSS Result	LCSS Qualifier	Unit	D	%Rec	Limits
Chromium, hex	39.4	33.5		mg/Kg		85	80 - 120

TestAmerica Denver

QC Sample Results

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

TestAmerica Job ID: 280-94768-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 280-94768-3 MSI
Matrix: Solid
Analysis Batch: 415150

Client Sample ID: RC4-HEL08-0.25
Prep Type: Total/NA
Prep Batch: 415128
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	Limits
Chromium, hex	7.3	F1	73.2	69.6		mg/Kg	✱	85	75 - 125

Lab Sample ID: 280-94768-3 MSS
Matrix: Solid
Analysis Batch: 415150

Client Sample ID: RC4-HEL08-0.25
Prep Type: Total/NA
Prep Batch: 415128
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	Limits
Chromium, hex	7.3	F1	45.7	40.3	F1	mg/Kg	✱	72	75 - 125

Lab Sample ID: 280-94768-2 DU
Matrix: Solid
Analysis Batch: 415150

Client Sample ID: RC4-CLU07-0.25
Prep Type: Total/NA
Prep Batch: 415128
RPD

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Chromium, hex	5.8	J	5.26	J	mg/Kg	✱	9	20

Method: 9045D - pH

Lab Sample ID: LCS 280-365223/1-A
Matrix: Solid
Analysis Batch: 365264

Client Sample ID: Lab Control Sample
Prep Type: Soluble

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

Lab Sample ID: 280-94768-1 DU
Matrix: Solid
Analysis Batch: 365264

Client Sample ID: RC4-HEL06-0.25
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
pH adj. to 25 deg C	8.4	HF	8.3		SU		1	5
Temperature	21.5	HF	21.5		Degrees C		0	5

Method: 9050A - Specific Conductance

Lab Sample ID: 280-94768-1 DU
Matrix: Solid
Analysis Batch: 414990

Client Sample ID: RC4-HEL06-0.25
Prep Type: Soluble
Prep Batch: 414393
RPD

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Electrical Conductivity	0.38		0.375		mmhos/cm		0	10

TestAmerica Denver

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	365121

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.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94768-1

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

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	03/13/17 09:48	SEJ	TAL DEN
Soluble	Analysis	20B		10			365556	03/14/17 10:15	CML	TAL DEN
Soluble	Leach	DI Leach			40.43 g	40 mL	365223	03/13/17 10:57	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	365264	03/13/17 13:38	IEU	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	414393	03/16/17 12:04	BAA	TAL NSH
Soluble	Analysis	9050A		1			414990	03/16/17 12:20	JAB	TAL NSH
Total/NA	Analysis	Moisture		1			365559	03/15/17 10:04	A1D	TAL DEN

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.564 g	5 mL	365288	03/10/17 14:10	GPM	TAL DEN
Total/NA	Analysis	8260B		1	1 uL	1 uL	365292	03/13/17 18:12	GPM	TAL DEN
Total/NA	Prep	3546			31.3 g	1 mL	365159	03/12/17 19:15	DFB1	TAL DEN
Total/NA	Analysis	8270D SIM		1			365407	03/14/17 16:38	KGV	TAL DEN
Total/NA	Prep	5035			6.907 g	5 mL	365286	03/10/17 14:10	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	365406	03/15/17 01:23	KDK	TAL DEN
Total/NA	Prep	3546			30.2 g	1 mL	365157	03/12/17 17:57	DFB1	TAL DEN
Total/NA	Cleanup	3630M			1 mL	1 mL	365320	03/13/17 20:20	ELV	TAL DEN
Total/NA	Analysis	8015C		1			365579	03/15/17 19:17	KDK	TAL DEN
Total/NA	Prep	3050B			1.473 g	100 mL	365211	03/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365371	03/14/17 02:37	SJS	TAL DEN
Total/NA	Prep	3050B			1.473 g	100 mL	365211	03/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365530	03/14/17 17:05	CDH	TAL DEN
Total/NA	Prep	3050B			1.401 g	100 mL	365212	03/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			365440	03/14/17 11:53	LMT	TAL DEN
Total/NA	Prep	7471A			0.55 g	50 mL	365338	03/14/17 12:14	TEB	TAL DEN
Total/NA	Analysis	7471A		1			365508	03/14/17 21:01	TEB	TAL DEN
Total/NA	Prep	3060A			2.5570 g	500 mL	415128	03/16/17 20:44	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	415150	03/17/17 00:15	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	415187	03/17/17 00:15	BMC	TAL NSH

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

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	03/13/17 09:48	SEJ	TAL DEN
Soluble	Analysis	20B		10			365556	03/14/17 10:18	CML	TAL DEN
Soluble	Leach	DI Leach			40.33 g	40 mL	365223	03/13/17 10:57	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	365264	03/13/17 13:38	IEU	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-94768-1

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	Prep	Sat Paste Ext			1 g	1 mL	414393	03/16/17 12:04	BAA	TAL NSH
Soluble	Analysis	9050A		1			414990	03/16/17 12:20	JAB	TAL NSH
Total/NA	Analysis	Moisture		1			365559	03/15/17 10:04	A1D	TAL DEN

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
Total/NA	Prep	5035			6.79 g	1000 mL	365366	03/10/17 14:20	CAS	TAL DEN
Total/NA	Analysis	8260B		10	20 mL	20 mL	365527	03/14/17 11:02	JLS	TAL DEN
Total/NA	Prep	3546			30.2 g	1 mL	365159	03/12/17 19:15	DFB1	TAL DEN
Total/NA	Analysis	8270D SIM		40			365407	03/14/17 17:04	KGV	TAL DEN
Total/NA	Prep	3546	DL		30.2 g	1 mL	365159	03/12/17 19:15	DFB1	TAL DEN
Total/NA	Analysis	8270D SIM	DL	100			365407	03/14/17 20:56	KGV	TAL DEN
Total/NA	Prep	5035			6.232 g	5 mL	365286	03/10/17 14:20	KDK	TAL DEN
Total/NA	Analysis	8015C		200	0.1 mL	5 mL	365702	03/16/17 01:00	KDK	TAL DEN
Total/NA	Prep	3050B			1.388 g	100 mL	365211	03/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365371	03/14/17 03:00	SJS	TAL DEN
Total/NA	Prep	3050B			1.388 g	100 mL	365211	03/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365530	03/14/17 17:27	CDH	TAL DEN
Total/NA	Prep	3050B			1.153 g	100 mL	365212	03/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			365440	03/14/17 12:23	LMT	TAL DEN
Total/NA	Prep	7471A			0.58 g	50 mL	365338	03/14/17 12:14	TEB	TAL DEN
Total/NA	Analysis	7471A		1			365508	03/14/17 21:08	TEB	TAL DEN
Total/NA	Prep	3060A			2.5491 g	500 mL	415128	03/16/17 20:44	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	415150	03/17/17 00:15	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	415187	03/17/17 00:15	BMC	TAL NSH

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	Prep	20B			1.0 g	50 mL	365121	03/13/17 09:48	SEJ	TAL DEN
Soluble	Analysis	20B		10			365556	03/14/17 10:32	CML	TAL DEN
Soluble	Leach	DI Leach			40.43 g	40 mL	365223	03/13/17 10:57	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	365264	03/13/17 13:38	IEU	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	414393	03/16/17 12:04	BAA	TAL NSH
Soluble	Analysis	9050A		1			414990	03/16/17 12:20	JAB	TAL NSH
Total/NA	Analysis	Moisture		1			365559	03/15/17 10:04	A1D	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-94768-1

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/NA	Prep	5035			4.911 g	5 mL	365288	03/10/17 15:45	GPM	TAL DEN
Total/NA	Analysis	8260B		1	1 uL	1 uL	365292	03/13/17 17:30	GPM	TAL DEN
Total/NA	Prep	3546			31.3 g	1 mL	365159	03/12/17 19:15	DFB1	TAL DEN
Total/NA	Analysis	8270D SIM		1			365407	03/14/17 17:29	KGV	TAL DEN
Total/NA	Prep	5035			5.062 g	5 mL	365286	03/10/17 15:45	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	365702	03/16/17 01:25	KDK	TAL DEN
Total/NA	Prep	3546			32.9 g	1 mL	365157	03/12/17 17:57	DFB1	TAL DEN
Total/NA	Cleanup	3630M			1 mL	1 mL	365320	03/13/17 20:20	ELV	TAL DEN
Total/NA	Analysis	8015C		1			365579	03/15/17 20:16	KDK	TAL DEN
Total/NA	Prep	3050B			1.205 g	100 mL	365211	03/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365371	03/14/17 03:02	SJS	TAL DEN
Total/NA	Prep	3050B			1.205 g	100 mL	365211	03/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365530	03/14/17 17:30	CDH	TAL DEN
Total/NA	Prep	3050B			1.440 g	100 mL	365212	03/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			365440	03/14/17 12:27	LMT	TAL DEN
Total/NA	Prep	7471A			0.52 g	50 mL	365338	03/14/17 12:14	TEB	TAL DEN
Total/NA	Analysis	7471A		1			365508	03/14/17 21:10	TEB	TAL DEN
Total/NA	Prep	3060A			2.5378 g	500 mL	415128	03/16/17 20:44	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	415150	03/17/17 00:15	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	415187	03/17/17 00:15	BMC	TAL NSH

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	Prep	20B			1.0 g	50 mL	365121	03/13/17 09:48	SEJ	TAL DEN
Soluble	Analysis	20B		10			365556	03/14/17 10:35	CML	TAL DEN
Soluble	Leach	DI Leach			40.41 g	40 mL	365223	03/13/17 10:57	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	365264	03/13/17 13:38	IEU	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	414393	03/16/17 12:04	BAA	TAL NSH
Soluble	Analysis	9050A		1			414990	03/16/17 12:20	JAB	TAL NSH
Total/NA	Analysis	Moisture		1			365559	03/15/17 10:04	A1D	TAL DEN

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/NA	Prep	5035			4.397 g	1000 mL	365366	03/10/17 15:55	CAS	TAL DEN
Total/NA	Analysis	8260B		10	20 mL	20 mL	365527	03/14/17 11:22	JLS	TAL DEN
Total/NA	Prep	3546			30.6 g	1 mL	365159	03/12/17 19:15	DFB1	TAL DEN
Total/NA	Analysis	8270D SIM		40			365407	03/14/17 18:47	KGV	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-94768-1

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/NA	Prep	3546	DL		30.6 g	1 mL	365159	03/12/17 19:15	DFB1	TAL DEN
Total/NA	Analysis	8270D SIM	DL	100			365407	03/14/17 21:22	KGV	TAL DEN
Total/NA	Prep	5035			6.451 g	5 mL	365286	03/10/17 15:55	KDK	TAL DEN
Total/NA	Analysis	8015C		100	0.1 mL	5 mL	365744	03/16/17 13:24	KDK	TAL DEN
Total/NA	Prep	3546			30.0 g	2 mL	365157	03/12/17 17:57	DFB1	TAL DEN
Total/NA	Cleanup	3630M			1 mL	2 mL	365320	03/13/17 20:20	ELV	TAL DEN
Total/NA	Analysis	8015C		10			365579	03/15/17 20:45	KDK	TAL DEN
Total/NA	Prep	3050B			1.275 g	100 mL	365211	03/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365371	03/14/17 03:04	SJS	TAL DEN
Total/NA	Prep	3050B			1.275 g	100 mL	365211	03/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365530	03/14/17 17:32	CDH	TAL DEN
Total/NA	Prep	3050B			1.456 g	100 mL	365212	03/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			365440	03/14/17 12:31	LMT	TAL DEN
Total/NA	Prep	7471A			0.51 g	50 mL	365338	03/14/17 12:14	TEB	TAL DEN
Total/NA	Analysis	7471A		1			365508	03/14/17 21:13	TEB	TAL DEN
Total/NA	Prep	3060A			2.5208 g	500 mL	415128	03/16/17 20:44	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	415150	03/17/17 00:15	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	415187	03/17/17 00:15	BMC	TAL NSH

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	Prep	20B			1.0 g	50 mL	365121	03/13/17 09:48	SEJ	TAL DEN
Soluble	Analysis	20B		10			365556	03/14/17 10:38	CML	TAL DEN
Soluble	Leach	DI Leach			40.18 g	40 mL	365223	03/13/17 10:57	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	365264	03/13/17 13:38	IEU	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	414393	03/16/17 12:04	BAA	TAL NSH
Soluble	Analysis	9050A		1			414990	03/16/17 12:20	JAB	TAL NSH
Total/NA	Analysis	Moisture		1			365559	03/15/17 10:04	A1D	TAL DEN

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/NA	Prep	5035			5.608 g	5 mL	365288	03/11/17 09:20	GPM	TAL DEN
Total/NA	Analysis	8260B		1	1 uL	1 uL	365292	03/13/17 18:32	GPM	TAL DEN
Total/NA	Prep	3546			30.4 g	1 mL	365159	03/12/17 19:15	DFB1	TAL DEN
Total/NA	Analysis	8270D SIM		1			365407	03/14/17 19:13	KGV	TAL DEN
Total/NA	Prep	5035			5.499 g	5 mL	365286	03/11/17 09:20	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	365702	03/16/17 02:14	KDK	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-94768-1

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/NA	Prep	3546			31.4 g	1 mL	365157	03/12/17 17:57	DFB1	TAL DEN
Total/NA	Cleanup	3630M			1 mL	1 mL	365320	03/13/17 20:20	ELV	TAL DEN
Total/NA	Analysis	8015C		1			365579	03/15/17 21:14	KDK	TAL DEN
Total/NA	Prep	3050B			1.105 g	100 mL	365211	03/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365371	03/14/17 03:07	SJS	TAL DEN
Total/NA	Prep	3050B			1.105 g	100 mL	365211	03/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365530	03/14/17 17:35	CDH	TAL DEN
Total/NA	Prep	3050B			1.258 g	100 mL	365212	03/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			365440	03/14/17 12:35	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 21:15	TEB	TAL DEN
Total/NA	Prep	3060A			2.5311 g	500 mL	415128	03/16/17 20:44	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	415150	03/17/17 00:15	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	415187	03/17/17 00:15	BMC	TAL NSH

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	Prep	20B			1.0 g	50 mL	365121	03/13/17 09:48	SEJ	TAL DEN
Soluble	Analysis	20B		10			365556	03/14/17 10:41	CML	TAL DEN
Soluble	Leach	DI Leach			40.33 g	40 mL	365223	03/13/17 10:57	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	365264	03/13/17 13:38	IEU	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	414393	03/16/17 12:04	BAA	TAL NSH
Soluble	Analysis	9050A		1			414990	03/16/17 12:20	JAB	TAL NSH
Total/NA	Analysis	Moisture		1			365559	03/15/17 10:04	A1D	TAL DEN

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/NA	Prep	5035			6.564 g	1000 mL	365366	03/11/17 09:35	CAS	TAL DEN
Total/NA	Analysis	8260B		10	20 mL	20 mL	365527	03/14/17 11:41	JLS	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		20			365407	03/14/17 19:39	KGV	TAL DEN
Total/NA	Prep	5035			6.504 g	5 mL	365286	03/11/17 09:35	KDK	TAL DEN
Total/NA	Analysis	8015C		10	0.1 mL	5 mL	365702	03/16/17 02:39	KDK	TAL DEN
Total/NA	Prep	3546			31.1 g	1 mL	365157	03/12/17 17:57	DFB1	TAL DEN
Total/NA	Cleanup	3630M			1 mL	1 mL	365320	03/13/17 20:20	ELV	TAL DEN
Total/NA	Analysis	8015C		2			365579	03/15/17 22:40	KDK	TAL DEN
Total/NA	Prep	3050B			1.402 g	100 mL	365211	03/13/17 14:35	SEJ	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-94768-1

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/NA	Analysis	6010C		1			365371	03/14/17 03:09	SJS	TAL DEN
Total/NA	Prep	3050B			1.402 g	100 mL	365211	03/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365530	03/14/17 17:37	CDH	TAL DEN
Total/NA	Prep	3050B			1.447 g	100 mL	365212	03/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			365440	03/14/17 12:38	LMT	TAL DEN
Total/NA	Prep	7471A			0.55 g	50 mL	365338	03/14/17 12:14	TEB	TAL DEN
Total/NA	Analysis	7471A		1			365508	03/14/17 21:17	TEB	TAL DEN
Total/NA	Prep	3060A			2.5208 g	500 mL	415128	03/16/17 20:44	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	415150	03/17/17 00:15	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	415187	03/17/17 00:15	BMC	TAL NSH

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	Prep	20B			1.0 g	50 mL	365121	03/13/17 09:48	SEJ	TAL DEN
Soluble	Analysis	20B		10			365556	03/14/17 10:44	CML	TAL DEN
Soluble	Leach	DI Leach			40.21 g	40 mL	365223	03/13/17 10:57	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	365264	03/13/17 13:38	IEU	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	414393	03/16/17 12:04	BAA	TAL NSH
Soluble	Analysis	9050A		1			414990	03/16/17 12:20	JAB	TAL NSH
Total/NA	Analysis	Moisture		1			365559	03/15/17 10:04	A1D	TAL DEN

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/NA	Prep	5035			5.996 g	1000 mL	365366	03/10/17 00:00	CAS	TAL DEN
Total/NA	Analysis	8260B		10	20 mL	20 mL	365527	03/14/17 12:01	JLS	TAL DEN
Total/NA	Prep	3546			31.6 g	1 mL	365159	03/12/17 19:15	DFB1	TAL DEN
Total/NA	Analysis	8270D SIM		40			365407	03/14/17 20:04	KGV	TAL DEN
Total/NA	Prep	3546	DL		31.6 g	1 mL	365159	03/12/17 19:15	DFB1	TAL DEN
Total/NA	Analysis	8270D SIM	DL	100			365407	03/14/17 22:13	KGV	TAL DEN
Total/NA	Prep	5035			5.941 g	5 mL	365286	03/11/17 00:00	KDK	TAL DEN
Total/NA	Analysis	8015C		200	0.1 mL	5 mL	365702	03/16/17 03:03	KDK	TAL DEN
Total/NA	Prep	3546			30.4 g	2 mL	365157	03/12/17 17:57	DFB1	TAL DEN
Total/NA	Cleanup	3630M			1 mL	2 mL	365320	03/13/17 20:20	ELV	TAL DEN
Total/NA	Analysis	8015C		10			365579	03/15/17 23:09	KDK	TAL DEN
Total/NA	Prep	3050B			1.425 g	100 mL	365211	03/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			365371	03/14/17 03:12	SJS	TAL DEN
Total/NA	Prep	3050B			1.425 g	100 mL	365211	03/13/17 14:35	SEJ	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-94768-1

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/NA	Analysis	6010C		1			365530	03/14/17 17:40	CDH	TAL DEN
Total/NA	Prep	3050B			1.166 g	100 mL	365212	03/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			365440	03/14/17 12:42	LMT	TAL DEN
Total/NA	Prep	7471A			0.56 g	50 mL	365338	03/14/17 12:14	TEB	TAL DEN
Total/NA	Analysis	7471A		1			365508	03/14/17 21:20	TEB	TAL DEN
Total/NA	Prep	3060A			2.5762 g	500 mL	415128	03/16/17 20:44	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	415150	03/17/17 00:15	DJP	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	415187	03/17/17 00:15	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

Accreditation/Certification Summary

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

TestAmerica Job ID: 280-94768-1

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: 280-94768-1

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

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 Tel/Fax: (303) 250-4718		Site Contact: Bethany Lucente Lab Contact: Jamie Ide		Date: 3/11/17 Carrier: Courier		COC No: _____ of _____ COCs												
Slantec		Analysis Turnaround Time		TAT if different from Below		Sampler:		For Lab Use Only:												
2000 South Colorado Blvd., Suite 2-300		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		ASAP 2 weeks		Walk-in Client:		Lab Sampling:												
Denver, CO 80222		<input type="checkbox"/> 1 week		<input type="checkbox"/> 2 days		Job / SDG No.:														
(303) 758-4058 Phone		<input type="checkbox"/> 1 day																		
(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)	BTEX 8260B	GRO-TEPH 8015C	DRO-TEPH 8015C	DRO-ORO w/SGHEM	PAHs 8270D SIM	EC/SAR	Metals 6010C	Hg 7471A	PH 9045D	Moisture	C/III/C/VI 7196A	As 6020	Sample Specific Notes:
RC4-HELO6-0.25	3/6/17	1410	G	S	11	N		X	X	X	X	X	X	X	X	X	X	X	X	
RC4-CLU07-0.25		1420																		
RC4-HELO8-0.25		1545																		
RC4-CLU09-0.25		1555																		
RC4-HELO10-0.25	3/11/17	0920																		
RC4-CLU11-0.25		0935																		
RC4-DUP01-0.25	3/10/17																			
 280-94768 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.																				
Special Instructions/QC Requirements & Comments:																				
Metals Include Ba, B, Cd, Cr, Cu, Pb, Ni, Se, Ag, Zn																				
Custody Seal Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																				
Relinquished by: <i>[Signature]</i> Date/Time: 3/11/17 14:30 Company: Slantec																				
Relinquished by: <i>[Signature]</i> Date/Time: 3/11/17 20:05 Company: TAP																				
Relinquished by: <i>[Signature]</i> Date/Time: 3/11/17 20:05 Company: TAP																				

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...NA Was a NCM generated? YES...NO...NA

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-94768-1

Login Number: 94768

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: 94768

List Number: 2

Creator: West, Derrick D

List Source: TestAmerica Nashville

List Creation: 03/14/17 02:21 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:

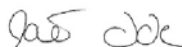
Stantec Consulting Corp.

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.

Table of Contents

Cover Page 1

Table of Contents 2

Definitions 3

Case Narrative 4

Detection Summary 5

Method Summary 6

Sample Summary 7

Client Sample Results 8

Surrogate Summary 10

QC Sample Results 11

QC Association 13

Chronicle 15

Certification Summary 17

Chain of Custody 18

Receipt Checklists 19



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: 280-94768-2

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Stantec Consulting Corp.
Project: Stantec CVX - Rangely, CO
Report Number: 280-94768-2

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 3/11/2017 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

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

TestAmerica Job ID: 280-94768-2

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: 280-94768-2

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)	1.5	J	4.9	0.83	mg/Kg	☼	03/15/17 10:45	03/17/17 07:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	72		49 - 115				03/15/17 10:45	03/17/17 07:42	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
DRO (C10-C28)	13000		98	17	mg/Kg	☼	03/15/17 10:46	03/17/17 02:59	10
DRO (C10-C28)	20000		98	17	mg/Kg	☼	03/15/17 10:45	03/17/17 08:11	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	951	X D	49 - 115				03/15/17 10:46	03/17/17 02:59	10
<i>o</i> -Terphenyl (Surr)	427	D X	49 - 115				03/15/17 10:45	03/17/17 08:11	10

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
DRO (C10-C28)	2.9	J F2	4.6	0.78	mg/Kg	☼	03/15/17 10:45	03/17/17 08:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	73		49 - 115				03/15/17 10:45	03/17/17 08:40	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)	24000		100	17	mg/Kg	☼	03/15/17 10:45	03/17/17 10:05	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	561	D X	49 - 115				03/15/17 10:45	03/17/17 10:05	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)	7.6		4.3	0.73	mg/Kg	☼	03/15/17 10:45	03/17/17 10:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	75		49 - 115				03/15/17 10:45	03/17/17 10:34	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
DRO (C10-C28)	7100		46	7.9	mg/Kg	☼	03/15/17 10:45	03/20/17 18:12	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	224	X D	49 - 115				03/15/17 10:45	03/20/17 18:12	10

Lab Sample ID: 280-94768-6

Matrix: Solid

Percent Solids: 82.3

TestAmerica Denver

Client 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)

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)	18000		100	17	mg/Kg	☼	03/15/17 10:45	03/17/17 12:31	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -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	%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	%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	%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	%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	%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

Percent Solids: 80.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.4 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

Percent Solids: 81.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.2 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

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/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

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/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

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/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

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/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-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/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

Laboratory References:

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: 280-94768-2

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

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: 3/11/17 Carrier: Courier		COC No: _____ of _____ COCs	
Slantec		Analysis Turnaround Time		TAT if different from Below		Sampler:		For Lab Use Only:	
2000 South Colorado Blvd., Suite 2-300		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		ASAP 2 weeks		Walk-in Client:		Lab Sampling:	
Denver, CO 80222		<input type="checkbox"/> 1 week		2 days		Job / SDG No.:			
(303) 758-4058 Phone		<input type="checkbox"/> 1 day							
(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.	Sample Specific Notes:		
RC4-HELO6-0.25	3/6/17	1410	G	S	11		As 6020		
RC4-CLU07-0.25		1420					Chill/CVI 7196A		
RC4-HELO8-0.25		1545					Moisture		
RC4-CLU09-0.25		1555					PH 9045D		
RC4-HELO10-0.25	3/11/17	0920					Hg 7471A		
RC4-CLU11-0.25		0935					Metals 6010C		
RC4-DUP01-0.25	3/10/17						EC/SAR		
							PAHs 8270D SIM		
							DRO, ORO w/ SGHEM		
							DRO-TEPH 8015C		
							DRO-TEPH 8015C		
							DRO-TEPH 8015C		
							BTX 8260B		
							Perform MS/MSD (Y/N)		
							Filtered Sample (Y/N)		
							280-94768 Chain of Custody		
<p>Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other</p> <p>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.</p> <p><input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown</p> <p>Special Instructions/QC Requirements & Comments:</p> <p>Metals Include Ba, B, Cd, Cr, Cu, Pb, Ni, Se, Ag, Zn</p> <p>Custody Seal Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Relinquished by: <i>[Signature]</i> Date/Time: 3/11/17 14:30 Company: Slantec</p> <p>Relinquished by: <i>[Signature]</i> Date/Time: 3/11/17 20:05 Company: G6</p> <p>Relinquished by: <i>[Signature]</i> Date/Time: 3/11/17 20:05 Company: G6</p>									

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-94768-2

Login Number: 94768

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	

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:

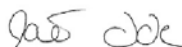
Stantec Consulting Corp.

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

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.

Table of Contents

Cover Page 1

Table of Contents 2

Definitions 3

Case Narrative 4

Detection Summary 8

Method Summary 11

Sample Summary 12

Client Sample Results 13

Surrogate Summary 20

QC Sample Results 22

QC Association 30

Chronicle 35

Certification Summary 38

Chain of Custody 40

Receipt Checklists 43



Definitions/Glossary

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

TestAmerica Job ID: 280-94790-1

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.
X	Surrogate is outside control limits

GC/MS Semi VOA

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 VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
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 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: 280-94790-1

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-HER12-0.25

Lab Sample ID: 280-94790-1

Analyte	Result	Qualifier	RL	MDL	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-HER13-0.25

Lab Sample ID: 280-94790-2

Analyte	Result	Qualifier	RL	MDL	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-HER13-0.25 (Continued)

Lab Sample ID: 280-94790-2

Analyte	Result	Qualifier	RL	MDL	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-HER14-0.25

Lab Sample ID: 280-94790-3

Analyte	Result	Qualifier	RL	MDL	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-HER14-0.25 (Continued)

Lab Sample ID: 280-94790-3

Analyte	Result	Qualifier	RL	MDL	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: 280-94790-1

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: 280-94790-1

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)	126		58 - 140	03/12/17 12:45	03/16/17 05:36	1
Toluene-d8 (Surr)	95		80 - 126	03/12/17 12:45	03/16/17 05:36	1
4-Bromofluorobenzene (Surr)	99		76 - 127	03/12/17 12:45	03/16/17 05:36	1
Dibromofluoromethane (Surr)	121		75 - 121	03/12/17 12:45	03/16/17 05:36	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)	137		58 - 140	03/12/17 13:15	03/15/17 21:04	1
Toluene-d8 (Surr)	107		80 - 126	03/12/17 13:15	03/15/17 21:04	1
4-Bromofluorobenzene (Surr)	108		76 - 127	03/12/17 13:15	03/15/17 21:04	1
Dibromofluoromethane (Surr)	126	X	75 - 121	03/12/17 13:15	03/15/17 21:04	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
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)	133		58 - 140	03/12/17 13:55	03/15/17 21:25	1
Toluene-d8 (Surr)	104		80 - 126	03/12/17 13:55	03/15/17 21:25	1
4-Bromofluorobenzene (Surr)	105		76 - 127	03/12/17 13:55	03/15/17 21:25	1
Dibromofluoromethane (Surr)	127	X	75 - 121	03/12/17 13:55	03/15/17 21:25	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-Fluorobiphenyl	64		39 - 120	03/17/17 11:01	03/17/17 16:25	1
Nitrobenzene-d5	82		42 - 120	03/17/17 11:01	03/17/17 16:25	1
Terphenyl-d14	53		35 - 124	03/17/17 11:01	03/17/17 16:25	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-Fluorobiphenyl	63		39 - 120	03/17/17 11:01	03/17/17 18:09	1
Nitrobenzene-d5	70		42 - 120	03/17/17 11:01	03/17/17 18:09	1
Terphenyl-d14	58		35 - 124	03/17/17 11:01	03/17/17 18:09	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-Fluorobiphenyl	65		39 - 120				03/17/17 11:01	03/17/17 18:47	1
Nitrobenzene-d5	73		42 - 120				03/17/17 11:01	03/17/17 18:47	1
Terphenyl-d14	60		35 - 124				03/17/17 11:01	03/17/17 18:47	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-Trifluorotoluene	87		77 - 123				03/12/17 12:45	03/17/17 13:11	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-Trifluorotoluene	94		77 - 123				03/12/17 13:15	03/17/17 13:36	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-Trifluorotoluene	85		77 - 123				03/12/17 13:55	03/17/17 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> -Terphenyl (Surr)	67		49 - 115				03/15/17 10:46	03/17/17 04:24	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> -Terphenyl (Surr)	70		49 - 115				03/15/17 10:46	03/17/17 04:52	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> -Terphenyl (Surr)	70		49 - 115				03/15/17 10:46	03/17/17 05:20	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: 280-94790-1

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 (58-140)	TOL (80-126)	BFB (76-127)	DBFM (75-121)
280-94790-1	RC4-HER12-0.25	126	95	99	121
280-94790-2	RC4-HER13-0.25	137	107	108	126 X
280-94790-3	RC4-HER14-0.25	133	104	105	127 X
LCS 280-365662/2-A	Lab Control Sample	111	92	88	114
MB 280-365662/1-A	Method Blank	110	94	91	114

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)
280-94790-1	RC4-HER12-0.25	64	82	53
280-94790-2	RC4-HER13-0.25	63	70	58
280-94790-3	RC4-HER14-0.25	65	73	60
LCS 280-365868/2-A	Lab Control Sample	77	80	83
MB 280-365868/1-A	Method Blank	85	85	82

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)	
280-94790-1	RC4-HER12-0.25	87	
280-94790-2	RC4-HER13-0.25	94	
280-94790-3	RC4-HER14-0.25	85	
LCS 280-365877/2-A	Lab Control Sample	97	
LCSD 280-365877/3-A	Lab Control Sample Dup	96	
MB 280-365877/1-A	Method Blank	97	

Surrogate Legend

TFT = a,a,a-Trifluorotoluene

Surrogate Summary

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)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTPH1 (49-115)
280-94790-1	RC4-HER12-0.25	67
280-94790-2	RC4-HER13-0.25	70
280-94790-3	RC4-HER14-0.25	70
LCS 280-365534/2-B	Lab Control Sample	77
MB 280-365534/1-B	Method Blank	81

Surrogate Legend

OTPH = 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 280-365662/1-A

Matrix: Solid

Analysis Batch: 365645

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365662

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
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)	110		58 - 140	03/15/17 15:00	03/15/17 20:02	1
Toluene-d8 (Surr)	94		80 - 126	03/15/17 15:00	03/15/17 20:02	1
4-Bromofluorobenzene (Surr)	91		76 - 127	03/15/17 15:00	03/15/17 20:02	1
Dibromofluoromethane (Surr)	114		75 - 121	03/15/17 15:00	03/15/17 20:02	1

Lab Sample ID: LCS 280-365662/2-A

Matrix: Solid

Analysis Batch: 365645

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365662

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	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 - 140
Toluene-d8 (Surr)	92		80 - 126
4-Bromofluorobenzene (Surr)	88		76 - 127
Dibromofluoromethane (Surr)	114		75 - 121

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

Lab Sample ID: MB 280-365868/1-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	Unit	D	Prepared	Analyzed	Dil Fac
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: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 280-365868/1-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	Unit	D	Prepared	Analyzed	Dil Fac
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		39 - 120	03/17/17 11:01	03/17/17 17:43	1
Nitrobenzene-d5	85		42 - 120	03/17/17 11:01	03/17/17 17:43	1
Terphenyl-d14	82		35 - 124	03/17/17 11:01	03/17/17 17:43	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	Unit	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	77		39 - 120
Nitrobenzene-d5	80		42 - 120
Terphenyl-d14	83		35 - 124

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

Lab Sample ID: MB 280-365877/1-A

Matrix: Solid

Analysis Batch: 365893

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365877

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
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	97		77 - 123	03/17/17 10:28	03/17/17 11:54	1

TestAmerica Denver

QC 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 (Gasoline Range Organics) (Continued)

Lab Sample ID: LCS 280-365877/2-A

Matrix: Solid

Analysis Batch: 365893

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365877

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
GRO (C6-C10)	5.50	6.62		mg/Kg		120	85 - 153
Surrogate	%Recovery	LCS Qualifier	Limits				
a,a,a-Trifluorotoluene	97		77 - 123				

Lab Sample ID: LCSD 280-365877/3-A

Matrix: Solid

Analysis Batch: 365893

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 365877

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	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	96		77 - 123						

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	%Recovery	MB Qualifier	Limits						
o-Terphenyl (Surr)	81		49 - 115						

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

Method: 20B - Sodium Adsorption Ratio

Lab Sample ID: MB 280-365444/1-A

Matrix: Solid

Analysis Batch: 365704

Client Sample ID: Method Blank

Prep Type: Soluble

Prep Batch: 365444

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	ND		10	10	mg/Kg		03/14/17 15:56	03/15/17 02:58	10

TestAmerica Denver

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 280-365444/1-A
Matrix: Solid
Analysis Batch: 365704

Client Sample ID: Method Blank
Prep Type: Soluble
Prep Batch: 365444

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
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: 280-94790-1 DU
Matrix: Solid
Analysis Batch: 365704

Client Sample ID: RC4-HER12-0.25
Prep Type: Soluble
Prep Batch: 365444

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	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: 6010C - Metals (ICP)

Lab Sample ID: MB 280-365399/1-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	Unit	D	Prepared	Analyzed	Dil Fac
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 280-365399/1-A
Matrix: Solid
Analysis Batch: 365700

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 365399

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
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 280-365399/1-A
Matrix: Solid
Analysis Batch: 365846

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 365399

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
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: 6010C - 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	Unit	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: 365700

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365399

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	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: 365846

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365399

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Selenium	200	191		mg/Kg		96	83 - 110

Lab Sample ID: 280-94790-1 MS

Matrix: Solid

Analysis Batch: 365533

Client Sample ID: RC4-HER12-0.25

Prep Type: Total/NA

Prep Batch: 365399

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	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: 280-94790-1 MS

Matrix: Solid

Analysis Batch: 365700

Client Sample ID: RC4-HER12-0.25

Prep Type: Total/NA

Prep Batch: 365399

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	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: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 280-94790-1 MS

Matrix: Solid

Analysis Batch: 365846

Client Sample ID: RC4-HER12-0.25

Prep Type: Total/NA

Prep Batch: 365399

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Selenium	ND	F2	183	150		mg/Kg	☼	82	76 - 104

Lab Sample ID: 280-94790-1 MSD

Matrix: Solid

Analysis Batch: 365533

Client Sample ID: RC4-HER12-0.25

Prep Type: Total/NA

Prep Batch: 365399

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	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: 280-94790-1 MSD

Matrix: Solid

Analysis Batch: 365700

Client Sample ID: RC4-HER12-0.25

Prep Type: Total/NA

Prep Batch: 365399

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	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: 280-94790-1 MSD

Matrix: Solid

Analysis Batch: 365846

Client Sample ID: RC4-HER12-0.25

Prep Type: Total/NA

Prep Batch: 365399

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	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 280-365398/1-A

Matrix: Solid

Analysis Batch: 365518

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 365398

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
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: 365518

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 365398

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	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: 280-94790-1 MS

Matrix: Solid

Analysis Batch: 365518

Client Sample ID: RC4-HER12-0.25

Prep Type: Total/NA

Prep Batch: 365398

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	7.0	F2	17.1	21.4		mg/Kg	☼	85	83 - 111

Lab Sample ID: 280-94790-1 MSD

Matrix: Solid

Analysis Batch: 365518

Client Sample ID: RC4-HER12-0.25

Prep Type: Total/NA

Prep Batch: 365398

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	7.0	F2	23.1	26.8	F2	mg/Kg	☼	86	83 - 111	22	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 280-365338/1-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	Unit	D	Prepared	Analyzed	Dil Fac
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	Unit	D	%Rec	Limits
Mercury	0.417	0.363		mg/Kg		87	87 - 111

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 490-414776/1-A

Matrix: Solid

Analysis Batch: 415073

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 414776

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	ND		5.0	2.0	mg/Kg		03/15/17 17:54	03/16/17 16:44	1

Lab Sample ID: LCS 490-414776/3-A

Matrix: Solid

Analysis Batch: 415073

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 414776

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Chromium, hex	63.3	57.5		mg/Kg		91	80 - 120

Lab Sample ID: LCSS 490-414776/2-A

Matrix: Solid

Analysis Batch: 415073

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 414776

Analyte	Spike Added	LCSS Result	LCSS Qualifier	Unit	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: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 280-94790-1 DU
Matrix: Solid
Analysis Batch: 415073

Client Sample ID: RC4-HER12-0.25
Prep Type: Total/NA
Prep Batch: 414776

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Chromium, hex	6.7		6.13		mg/Kg	✖	9	20

Method: 9045D - pH

Lab Sample ID: LCS 280-365397/4
Matrix: Solid
Analysis Batch: 365397

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

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

Lab Sample ID: 280-94790-1 DU
Matrix: Solid
Analysis Batch: 365397

Client Sample ID: RC4-HER12-0.25
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	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: 280-94790-1 DU
Matrix: Solid
Analysis Batch: 415302

Client Sample ID: RC4-HER12-0.25
Prep Type: Soluble
Prep Batch: 414656

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Electrical Conductivity	0.39		0.395		mmhos/cm		0.8	10

Method: Moisture - Percent Moisture

Lab Sample ID: 280-94790-1 DU
Matrix: Solid
Analysis Batch: 365559

Client Sample ID: RC4-HER12-0.25
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	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: 280-94790-1

GC/MS VOA

Analysis Batch: 365645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Total/NA	Solid	8260B	365662
280-94790-2	RC4-HER13-0.25	Total/NA	Solid	8260B	365662
280-94790-3	RC4-HER14-0.25	Total/NA	Solid	8260B	365662
MB 280-365662/1-A	Method Blank	Total/NA	Solid	8260B	365662
LCS 280-365662/2-A	Lab Control Sample	Total/NA	Solid	8260B	365662

Prep Batch: 365662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Total/NA	Solid	5035	
280-94790-2	RC4-HER13-0.25	Total/NA	Solid	5035	
280-94790-3	RC4-HER14-0.25	Total/NA	Solid	5035	
MB 280-365662/1-A	Method Blank	Total/NA	Solid	5035	
LCS 280-365662/2-A	Lab Control Sample	Total/NA	Solid	5035	

GC/MS Semi VOA

Prep Batch: 365868

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 280-365868/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-365868/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 365889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Total/NA	Solid	8270D SIM	365868
280-94790-2	RC4-HER13-0.25	Total/NA	Solid	8270D SIM	365868
280-94790-3	RC4-HER14-0.25	Total/NA	Solid	8270D SIM	365868
MB 280-365868/1-A	Method Blank	Total/NA	Solid	8270D SIM	365868
LCS 280-365868/2-A	Lab Control Sample	Total/NA	Solid	8270D SIM	365868

GC VOA

Prep Batch: 365877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Total/NA	Solid	5035	
280-94790-2	RC4-HER13-0.25	Total/NA	Solid	5035	
280-94790-3	RC4-HER14-0.25	Total/NA	Solid	5035	
MB 280-365877/1-A	Method Blank	Total/NA	Solid	5035	
LCS 280-365877/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 280-365877/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 365893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Total/NA	Solid	8015C	365877
280-94790-2	RC4-HER13-0.25	Total/NA	Solid	8015C	365877
280-94790-3	RC4-HER14-0.25	Total/NA	Solid	8015C	365877
MB 280-365877/1-A	Method Blank	Total/NA	Solid	8015C	365877
LCS 280-365877/2-A	Lab Control Sample	Total/NA	Solid	8015C	365877

TestAmerica Denver

QC Association Summary

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

TestAmerica Job ID: 280-94790-1

GC VOA (Continued)

Analysis Batch: 365893 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 280-365877/3-A	Lab Control Sample Dup	Total/NA	Solid	8015C	365877

GC Semi VOA

Prep Batch: 365534

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 280-365534/1-B	Method Blank	Total/NA	Solid	3546	
LCS 280-365534/2-B	Lab Control Sample	Total/NA	Solid	3546	

Cleanup Batch: 365740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Total/NA	Solid	3630M	365534
280-94790-2	RC4-HER13-0.25	Total/NA	Solid	3630M	365534
280-94790-3	RC4-HER14-0.25	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

Analysis Batch: 365788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Total/NA	Solid	8015C	365740
280-94790-2	RC4-HER13-0.25	Total/NA	Solid	8015C	365740
280-94790-3	RC4-HER14-0.25	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

Metals

Prep Batch: 365338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Total/NA	Solid	7471A	
280-94790-2	RC4-HER13-0.25	Total/NA	Solid	7471A	
280-94790-3	RC4-HER14-0.25	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	

Prep Batch: 365398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Total/NA	Solid	3050B	
280-94790-2	RC4-HER13-0.25	Total/NA	Solid	3050B	
280-94790-3	RC4-HER14-0.25	Total/NA	Solid	3050B	
MB 280-365398/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 280-365398/2-A	Lab Control Sample	Total/NA	Solid	3050B	
280-94790-1 MS	RC4-HER12-0.25	Total/NA	Solid	3050B	
280-94790-1 MSD	RC4-HER12-0.25	Total/NA	Solid	3050B	

TestAmerica Denver

QC Association Summary

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

TestAmerica Job ID: 280-94790-1

Metals (Continued)

Prep Batch: 365399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Total/NA	Solid	3050B	
280-94790-2	RC4-HER13-0.25	Total/NA	Solid	3050B	
280-94790-3	RC4-HER14-0.25	Total/NA	Solid	3050B	
MB 280-365399/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 280-365399/2-A	Lab Control Sample	Total/NA	Solid	3050B	
280-94790-1 MS	RC4-HER12-0.25	Total/NA	Solid	3050B	
280-94790-1 MSD	RC4-HER12-0.25	Total/NA	Solid	3050B	

Prep Batch: 365444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Soluble	Solid	20B	
280-94790-2	RC4-HER13-0.25	Soluble	Solid	20B	
280-94790-3	RC4-HER14-0.25	Soluble	Solid	20B	
MB 280-365444/1-A	Method Blank	Soluble	Solid	20B	
280-94790-1 DU	RC4-HER12-0.25	Soluble	Solid	20B	

Analysis Batch: 365508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Total/NA	Solid	7471A	365338
280-94790-2	RC4-HER13-0.25	Total/NA	Solid	7471A	365338
280-94790-3	RC4-HER14-0.25	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

Analysis Batch: 365518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Total/NA	Solid	6020A	365398
280-94790-2	RC4-HER13-0.25	Total/NA	Solid	6020A	365398
280-94790-3	RC4-HER14-0.25	Total/NA	Solid	6020A	365398
MB 280-365398/1-A	Method Blank	Total/NA	Solid	6020A	365398
LCS 280-365398/2-A	Lab Control Sample	Total/NA	Solid	6020A	365398
280-94790-1 MS	RC4-HER12-0.25	Total/NA	Solid	6020A	365398
280-94790-1 MSD	RC4-HER12-0.25	Total/NA	Solid	6020A	365398

Analysis Batch: 365533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Total/NA	Solid	6010C	365399
280-94790-2	RC4-HER13-0.25	Total/NA	Solid	6010C	365399
280-94790-3	RC4-HER14-0.25	Total/NA	Solid	6010C	365399
MB 280-365399/1-A	Method Blank	Total/NA	Solid	6010C	365399
LCS 280-365399/2-A	Lab Control Sample	Total/NA	Solid	6010C	365399
280-94790-1 MS	RC4-HER12-0.25	Total/NA	Solid	6010C	365399
280-94790-1 MSD	RC4-HER12-0.25	Total/NA	Solid	6010C	365399

Analysis Batch: 365700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Total/NA	Solid	6010C	365399
280-94790-2	RC4-HER13-0.25	Total/NA	Solid	6010C	365399
280-94790-3	RC4-HER14-0.25	Total/NA	Solid	6010C	365399
MB 280-365399/1-A	Method Blank	Total/NA	Solid	6010C	365399
LCS 280-365399/2-A	Lab Control Sample	Total/NA	Solid	6010C	365399

TestAmerica Denver

QC Association Summary

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

TestAmerica Job ID: 280-94790-1

Metals (Continued)

Analysis Batch: 365700 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1 MS	RC4-HER12-0.25	Total/NA	Solid	6010C	365399
280-94790-1 MSD	RC4-HER12-0.25	Total/NA	Solid	6010C	365399

Analysis Batch: 365704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Soluble	Solid	20B	365444
280-94790-2	RC4-HER13-0.25	Soluble	Solid	20B	365444
280-94790-3	RC4-HER14-0.25	Soluble	Solid	20B	365444
MB 280-365444/1-A	Method Blank	Soluble	Solid	20B	365444
280-94790-1 DU	RC4-HER12-0.25	Soluble	Solid	20B	365444

Analysis Batch: 365846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Total/NA	Solid	6010C	365399
280-94790-2	RC4-HER13-0.25	Total/NA	Solid	6010C	365399
280-94790-3	RC4-HER14-0.25	Total/NA	Solid	6010C	365399
MB 280-365399/1-A	Method Blank	Total/NA	Solid	6010C	365399
LCS 280-365399/2-A	Lab Control Sample	Total/NA	Solid	6010C	365399
280-94790-1 MS	RC4-HER12-0.25	Total/NA	Solid	6010C	365399
280-94790-1 MSD	RC4-HER12-0.25	Total/NA	Solid	6010C	365399

General Chemistry

Leach Batch: 365384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Soluble	Solid	DI Leach	
280-94790-2	RC4-HER13-0.25	Soluble	Solid	DI Leach	
280-94790-3	RC4-HER14-0.25	Soluble	Solid	DI Leach	
280-94790-1 DU	RC4-HER12-0.25	Soluble	Solid	DI Leach	

Analysis Batch: 365397

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Soluble	Solid	9045D	365384
280-94790-2	RC4-HER13-0.25	Soluble	Solid	9045D	365384
280-94790-3	RC4-HER14-0.25	Soluble	Solid	9045D	365384
LCS 280-365397/4	Lab Control Sample	Total/NA	Solid	9045D	
280-94790-1 DU	RC4-HER12-0.25	Soluble	Solid	9045D	365384

Analysis Batch: 365559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Total/NA	Solid	Moisture	
280-94790-2	RC4-HER13-0.25	Total/NA	Solid	Moisture	
280-94790-3	RC4-HER14-0.25	Total/NA	Solid	Moisture	
280-94790-1 DU	RC4-HER12-0.25	Total/NA	Solid	Moisture	

Prep Batch: 414656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Soluble	Solid	Sat Paste Ext	
280-94790-2	RC4-HER13-0.25	Soluble	Solid	Sat Paste Ext	
280-94790-3	RC4-HER14-0.25	Soluble	Solid	Sat Paste Ext	

TestAmerica Denver

QC Association Summary

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

TestAmerica Job ID: 280-94790-1

General Chemistry (Continued)

Prep Batch: 414656 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1 DU	RC4-HER12-0.25	Soluble	Solid	Sat Paste Ext	

Prep Batch: 414776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Total/NA	Solid	3060A	
280-94790-2	RC4-HER13-0.25	Total/NA	Solid	3060A	
280-94790-3	RC4-HER14-0.25	Total/NA	Solid	3060A	
MB 490-414776/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 490-414776/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSS 490-414776/2-A	Lab Control Sample	Total/NA	Solid	3060A	
280-94790-1 DU	RC4-HER12-0.25	Total/NA	Solid	3060A	

Analysis Batch: 415073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Total/NA	Solid	7196A	414776
280-94790-2	RC4-HER13-0.25	Total/NA	Solid	7196A	414776
280-94790-3	RC4-HER14-0.25	Total/NA	Solid	7196A	414776
MB 490-414776/1-A	Method Blank	Total/NA	Solid	7196A	414776
LCSI 490-414776/3-A	Lab Control Sample	Total/NA	Solid	7196A	414776
LCSS 490-414776/2-A	Lab Control Sample	Total/NA	Solid	7196A	414776
280-94790-1 DU	RC4-HER12-0.25	Total/NA	Solid	7196A	414776

Analysis Batch: 415189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Total/NA	Solid	7196A	
280-94790-2	RC4-HER13-0.25	Total/NA	Solid	7196A	
280-94790-3	RC4-HER14-0.25	Total/NA	Solid	7196A	

Analysis Batch: 415302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-94790-1	RC4-HER12-0.25	Soluble	Solid	9050A	414656
280-94790-2	RC4-HER13-0.25	Soluble	Solid	9050A	414656
280-94790-3	RC4-HER14-0.25	Soluble	Solid	9050A	414656
LCS 490-415302/3	Lab Control Sample	Total/NA	Solid	9050A	
LCSD 490-415302/4	Lab Control Sample Dup	Total/NA	Solid	9050A	
280-94790-1 DU	RC4-HER12-0.25	Soluble	Solid	9050A	414656

Lab Chronicle

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

TestAmerica Job ID: 280-94790-1

Client Sample ID: RC4-HER12-0.25

Lab Sample ID: 280-94790-1

Date Collected: 03/12/17 12:45

Matrix: Solid

Date Received: 03/13/17 20:06

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-HER12-0.25

Lab Sample ID: 280-94790-1

Date Collected: 03/12/17 12:45

Matrix: Solid

Date Received: 03/13/17 20:06

Percent Solids: 80.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.948 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-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

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-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

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-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

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-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

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-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

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-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

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: 280-94790-1

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: 280-94790-1

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

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:	
Tel/Fax: (303) 250-4718		Analysis Turnaround Time		Lab Contact: Jamie Ide		Carrier: Courier	
<input type="checkbox"/> CALNDAR DAYS <input type="checkbox"/> WORKING DAYS <input type="checkbox"/> ASAP <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		TAT If different from Below		<input type="checkbox"/> Filtered Sample (Y/N) <input type="checkbox"/> Perform MS/MSD (Y/N)		<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months	
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sample Specific Notes:	
RC4-HER12-0.25	3/12/17	1245	G	S	11	As 6020	
RC4-HER13-0.25	↓	1315	↓	↓	13	CrIII/CrVI 7196A	
RC4-HER14-0.25	↓	1355	↓	↓	13	Moisture	
						pH 9045D	
						Hg 7471A	
						Metals 6010C	
						EC/SAR	
						PAHs 8270D SIM	
						DRO, ORD w/ SCHEM	
						DRO, TEPH 8015C	
						DRO, TEPH 8015C	
						DRO, TEPH 8015C	
						GRX 8260B	
						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. <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: 3.3 Cor'd: 3.3		Therm ID No.: 7	
Relinquished by: Anna Shinn		Company: Stantec		Date/Time: 3/12/17 1535		Date/Time: 3-13-17 1535	
Relinquished by: Valerie K. Cooper		Company: Valerie K. Cooper		Date/Time: 3-13-17 2021		Date/Time: 3/13/17 2021	
Relinquished by: Valerie K. Cooper		Company: Valerie K. Cooper		Date/Time: 3/13/17 2021		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 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 & 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

TestAmerica Denver

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

Chain of Custody Record

280-94790

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)		Sampler:	Lab File:	COC No:					
Client Contact:	Phone:	Id: Jamie N	280-390635.1	Page 1 of 1					
Shipping/Receiving:	Company:	E-Mail:	Accreditations Required (See note):	Job #:					
TestAmerica Laboratories, Inc.		jamie.n@testamericainc.com	280-94790-1	Preservation Codes:					
Address:	Due Date Requested:	Analysis Requested							
2960 Foster Creighton Drive.	3/17/2017	<input type="checkbox"/> A - HCL <input type="checkbox"/> B - NaOH <input type="checkbox"/> C - Zn Acetate <input type="checkbox"/> D - Nitric Acid <input type="checkbox"/> E - NaHSO4 <input type="checkbox"/> F - MeOH <input type="checkbox"/> G - Amchlor <input type="checkbox"/> H - Ascorbic Acid <input type="checkbox"/> I - Ice <input type="checkbox"/> J - DI Water <input type="checkbox"/> K - EDTA <input type="checkbox"/> L - EDTA <input type="checkbox"/> Other:							
City:	TAT Requested (days):	<input type="checkbox"/> M - Hexane <input type="checkbox"/> N - None <input type="checkbox"/> O - AsNaO2 <input type="checkbox"/> P - Na2O4S <input type="checkbox"/> Q - Na2SO3 <input type="checkbox"/> R - Na2S2O3 <input type="checkbox"/> S - H2SO4 <input type="checkbox"/> T - TSP Dodecylsulfate <input type="checkbox"/> U - Acetone <input type="checkbox"/> V - MCAA <input type="checkbox"/> W - pH 4.5 <input type="checkbox"/> Z - other (Specify)							
State, Zip:	PO #:								
TN, 37204	WQ #:								
Phone:	Project #:								
615-726-0177(Tel) 615-726-3404(Fax)	28016458								
Email:	SSOW#:								
Project Name:									
Stanlec CVX - Rangely, CO									
Site:									
Sample Identification - Client ID (Lab ID)		Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of containers					
RCA-HER12-0.25 (280-94790-1)	3/12/17	12:45	Mountain	Solid	X	X	X	2	Special Instructions/Note:
RCA-HER13-0.25 (280-94790-2)	3/12/17	13:15	Mountain	Solid	X	X	X	2	
RCA-HER14-0.25 (280-94790-3)	3/12/17	13:55	Mountain	Solid	X	X	X	2	
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									
Special Instructions/IOC Requirements:									
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:									
Date:									
Time:									
Method of Shipment:									
Relinquished by:									
Date/Time:									
Company:									
Relinquished by:									
Date/Time:									
Company:									
Custody Seals Intact:									
Custody Seal No.:									
Cooler Temperature(s) °C and Other Remarks:									
0.9									

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-94790-1

Login Number: 94790

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.	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:

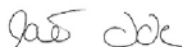
Stantec Consulting Corp.

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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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.

Table of Contents

Cover Page 1

Table of Contents 2

Definitions 3

Case Narrative 4

Detection Summary 5

Method Summary 6

Sample Summary 7

Client Sample Results 8

Surrogate Summary 9

QC Sample Results 10

QC Association 11

Chronicle 12

Certification Summary 13

Chain of Custody 14

Receipt Checklists 15



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: 280-94790-2

Client Sample ID: RC4-HER12-0.25

Lab Sample ID: 280-94790-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
DRO (C10-C28)	1.6	J	4.9	0.84	mg/Kg	1		✱	8015C	Total/NA

Client Sample ID: RC4-HER13-0.25

Lab Sample ID: 280-94790-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
DRO (C10-C28)	1.8	J	5.2	0.88	mg/Kg	1		✱	8015C	Total/NA

Client Sample ID: RC4-HER14-0.25

Lab Sample ID: 280-94790-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
DRO (C10-C28)	3.7	J	4.7	0.80	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: 280-94790-2

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: 280-94790-2

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: 280-94790-2

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

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 10:45	03/17/17 13:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	64		49 - 115				03/15/17 10:45	03/17/17 13:30	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
DRO (C10-C28)	1.8	J	5.2	0.88	mg/Kg	☼	03/15/17 10:45	03/17/17 13:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	66		49 - 115				03/15/17 10:45	03/17/17 13:59	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
DRO (C10-C28)	3.7	J	4.7	0.80	mg/Kg	☼	03/15/17 10:45	03/17/17 14:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	68		49 - 115				03/15/17 10:45	03/17/17 14:28	1

Lab Sample ID: 280-94790-3

Matrix: Solid

Percent Solids: 83.2

TestAmerica Denver

Surrogate Summary

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)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTPH1 (49-115)
280-94790-1	RC4-HER12-0.25	64
280-94790-2	RC4-HER13-0.25	66
280-94790-3	RC4-HER14-0.25	68
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: 280-94790-2

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: 280-94790-2

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.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-94790-2

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.4 g	1 mL	365546	03/15/17 10:45	JRA	TAL DEN
Total/NA	Analysis	8015C		1			365789	03/17/17 13:30	DAW	TAL DEN

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.4 g	1 mL	365546	03/15/17 10:45	JRA	TAL DEN
Total/NA	Analysis	8015C		1			365789	03/17/17 13:59	DAW	TAL DEN

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.4 g	1 mL	365546	03/15/17 10:45	JRA	TAL DEN
Total/NA	Analysis	8015C		1			365789	03/17/17 14:28	DAW	TAL DEN

Laboratory References:

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: 280-94790-2

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

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:	
Tel/Fax: (303) 250-4718		Analysis Turnaround Time		Lab Contact: Jamie Ide		Carrier: Courier	
<input type="checkbox"/> CALNDAR DAYS <input type="checkbox"/> WORKING DAYS <input type="checkbox"/> ASAP <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		TAT If different from Below		<input type="checkbox"/> Filtered Sample (Y/N) <input type="checkbox"/> Perform MS/MSD (Y/N)		<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for Months	
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sample Specific Notes:	
RC4-HER12-0.25	3/12/17	1245	G	S	11	As 6020	
RC4-HER13-0.25	↓	1315	↓	↓	13	CrIII/CrVI 7196A	
RC4-HER14-0.25	↓	1355	↓	↓	13	Moisture	
						pH 9045D	
						Hg 7471A	
						Metals 6010C	
						EC/SAR	
						PAHs 8270D SIM	
						DRO, ORD w/ SCHEM	
						ORO-TEPH 8015C	
						DRO-TEPH 8015C	
						ORO-TEPH 8015C	
						GR-TEPH 8015C	
						BTX 8260B	


 280-94790 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.

☐ 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

Custody Seal No.: ☐ Yes ☐ No

Relinquished by: Anna Shinn Date/Time: 3/12/17 1535 Company: Stantec

Relinquished by: Valerie Cooper Date/Time: 3/13/17 2021 Company: LEELEY COOPER

Relinquished by: Date/Time: Company:

3.3+0.0 IR-#7 transferred by JS 3/13/17

3.3 Cor'd: 3.3 Obs'd: 3.3 Therm ID No.: 7

Company: LEELEY COOPER Date/Time: 3-13-17 1535

Company: TAD Date/Time: 3/13/17 2021

Company: Date/Time:

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-94790-2

Login Number: 94790

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.	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	

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

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.

Table of Contents

Cover Page 1

Table of Contents 2

Definitions 3

Case Narrative 5

Detection Summary 8

Method Summary 11

Sample Summary 12

Client Sample Results 13

Surrogate Summary 21

QC Sample Results 23

QC Association 32

Chronicle 38

Certification Summary 41

Chain of Custody 43

Receipt Checklists 46



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)

1

2

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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: 280-95013-1

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
Ethylbenzene	0.70	F1	0.26	0.036	mg/Kg	1		✱	8260B	Total/NA
Toluene	0.39	F1	0.26	0.041	mg/Kg	1		✱	8260B	Total/NA
m-Xylene & p-Xylene	3.8	F1	0.26	0.082	mg/Kg	1		✱	8260B	Total/NA
o-Xylene	1.9	F1	0.13	0.037	mg/Kg	1		✱	8260B	Total/NA
Xylenes, Total	5.7	F1	0.26	0.037	mg/Kg	1		✱	8260B	Total/NA
Chrysene	1.5		0.42	0.083	mg/Kg	40		✱	8270D SIM	Total/NA
Fluorene	1.6		0.42	0.039	mg/Kg	40		✱	8270D SIM	Total/NA
Naphthalene	5.9		0.42	0.027	mg/Kg	40		✱	8270D SIM	Total/NA
Pyrene	0.73		0.42	0.092	mg/Kg	40		✱	8270D SIM	Total/NA
GRO (C6-C10)	860		63	17	mg/Kg	50		✱	8015C	Total/NA
GRO (C6-C10) - RE	1000		61	17	mg/Kg	50		✱	8015C	Total/NA
DRO (C10-C28)	22000		160	27	mg/Kg	10		✱	8015C	Total/NA
DRO (C10-C28) - RE	24000		160	26	mg/Kg	5		✱	8015C	Total/NA
Na	680		10	10	mg/Kg	10			20B	Soluble
Ca	870		2.0	2.0	mg/Kg	10			20B	Soluble
Mg	290		2.0	2.0	mg/Kg	10			20B	Soluble
Sodium Adsorption Ratio	5.1		1.2	1.2	No Unit	10			20B	Soluble
Barium	290	F1	0.96	0.099	mg/Kg	1		✱	6010C	Total/NA
Cadmium	0.57		0.48	0.039	mg/Kg	1		✱	6010C	Total/NA
Chromium	18		1.4	0.055	mg/Kg	1		✱	6010C	Total/NA
Lead	20	F1	0.86	0.30	mg/Kg	1		✱	6010C	Total/NA
Boron	14		9.6	0.94	mg/Kg	1		✱	6010C	Total/NA
Selenium	1.6	F1	1.4	0.82	mg/Kg	1		✱	6010C	Total/NA
Calcium	30000	B	48	13	mg/Kg	1		✱	6010C	Total/NA
Copper	18		1.9	0.21	mg/Kg	1		✱	6010C	Total/NA
Magnesium	12000	F1 B	19	3.5	mg/Kg	1		✱	6010C	Total/NA
Nickel	19	F1	3.8	0.13	mg/Kg	1		✱	6010C	Total/NA
Sodium	960		480	56	mg/Kg	1		✱	6010C	Total/NA
Zinc	77	F1	2.9	0.38	mg/Kg	1		✱	6010C	Total/NA
Arsenic	7.6		0.55	0.046	mg/Kg	1		✱	6020A	Total/NA
Mercury	0.029		0.021	0.0067	mg/Kg	1		✱	7471A	Total/NA
Chromium, hex	2.2	J	5.1	2.0	mg/Kg	1		✱	7196A	Total/NA
Chromium, trivalent	16		5.2	2.1	mg/Kg	1		✱	7196A	Total/NA
pH adj. to 25 deg C	8.0	HF	0.1	0.1	SU	1			9045D	Soluble
Temperature	19.5	HF	1.0	1.0	Degrees C	1			9045D	Soluble
Electrical Conductivity	7.0		0.010	0.010	mmhos/cm	1			9050A	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
Benzene	0.32		0.29	0.053	mg/Kg	1		✱	8260B	Total/NA
Ethylbenzene	2.0		0.29	0.040	mg/Kg	1		✱	8260B	Total/NA
Toluene	2.5		0.29	0.046	mg/Kg	1		✱	8260B	Total/NA
m-Xylene & p-Xylene	10		0.29	0.091	mg/Kg	1		✱	8260B	Total/NA
o-Xylene	4.7		0.15	0.041	mg/Kg	1		✱	8260B	Total/NA
Xylenes, Total	15		0.29	0.041	mg/Kg	1		✱	8260B	Total/NA
Chrysene	0.45		0.23	0.045	mg/Kg	40		✱	8270D SIM	Total/NA
Fluorene	0.67		0.23	0.021	mg/Kg	40		✱	8270D SIM	Total/NA
Naphthalene	2.2		0.23	0.015	mg/Kg	40		✱	8270D SIM	Total/NA
Pyrene	0.10	J	0.23	0.050	mg/Kg	40		✱	8270D SIM	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: 280-95013-1

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
GRO (C6-C10)	220		14	3.7	mg/Kg	10		✱	8015C	Total/NA
GRO (C6-C10) - RE	280		14	3.7	mg/Kg	10		✱	8015C	Total/NA
DRO (C10-C28)	7900		37	6.3	mg/Kg	2		✱	8015C	Total/NA
DRO (C10-C28) - RE	7100		46	7.7	mg/Kg	10		✱	8015C	Total/NA
Na	210		10	10	mg/Kg	10			20B	Soluble
Ca	610		2.0	2.0	mg/Kg	10			20B	Soluble
Mg	120		2.0	2.0	mg/Kg	10			20B	Soluble
Sodium Adsorption Ratio	2.0		1.2	1.2	No Unit	10			20B	Soluble
Barium	970		1.0	0.11	mg/Kg	1		✱	6010C	Total/NA
Cadmium	0.60		0.52	0.043	mg/Kg	1		✱	6010C	Total/NA
Chromium	18		1.6	0.061	mg/Kg	1		✱	6010C	Total/NA
Lead	27		0.94	0.32	mg/Kg	1		✱	6010C	Total/NA
Boron	14		10	1.0	mg/Kg	1		✱	6010C	Total/NA
Selenium	1.5	J	1.6	0.90	mg/Kg	1		✱	6010C	Total/NA
Calcium	27000	B	52	15	mg/Kg	1		✱	6010C	Total/NA
Copper	18		2.1	0.23	mg/Kg	1		✱	6010C	Total/NA
Magnesium	11000	B	21	3.9	mg/Kg	1		✱	6010C	Total/NA
Nickel	19		4.2	0.14	mg/Kg	1		✱	6010C	Total/NA
Sodium	330	J	520	62	mg/Kg	1		✱	6010C	Total/NA
Zinc	73		3.1	0.42	mg/Kg	1		✱	6010C	Total/NA
Arsenic	7.2		0.64	0.054	mg/Kg	1		✱	6020A	Total/NA
Mercury	0.029		0.021	0.0067	mg/Kg	1		✱	7471A	Total/NA
Chromium, hex	3.4	J	5.7	2.3	mg/Kg	1		✱	7196A	Total/NA
Chromium, trivalent	15		5.8	2.3	mg/Kg	1		✱	7196A	Total/NA
pH adj. to 25 deg C	7.9	HF	0.1	0.1	SU	1			9045D	Soluble
Temperature	19.7	HF	1.0	1.0	Degrees C	1			9045D	Soluble
Electrical Conductivity	4.0		0.010	0.010	mmhos/cm	1			9050A	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
Ethylbenzene	0.13	J	0.27	0.037	mg/Kg	1		✱	8260B	Total/NA
Toluene	0.046	J	0.27	0.043	mg/Kg	1		✱	8260B	Total/NA
m-Xylene & p-Xylene	0.81		0.27	0.086	mg/Kg	1		✱	8260B	Total/NA
o-Xylene	0.58		0.14	0.038	mg/Kg	1		✱	8260B	Total/NA
Xylenes, Total	1.4		0.27	0.038	mg/Kg	1		✱	8260B	Total/NA
Benzo[b]fluoranthene	0.053	J	0.22	0.052	mg/Kg	40		✱	8270D SIM	Total/NA
Chrysene	0.73		0.22	0.044	mg/Kg	40		✱	8270D SIM	Total/NA
Fluorene	0.93		0.22	0.020	mg/Kg	40		✱	8270D SIM	Total/NA
Naphthalene	5.0		0.22	0.014	mg/Kg	40		✱	8270D SIM	Total/NA
Pyrene	0.33		0.22	0.048	mg/Kg	40		✱	8270D SIM	Total/NA
GRO (C6-C10)	340		27	7.3	mg/Kg	20		✱	8015C	Total/NA
GRO (C6-C10) - RE	310		26	7.2	mg/Kg	20		✱	8015C	Total/NA
DRO (C10-C28)	12000		110	18	mg/Kg	5		✱	8015C	Total/NA
DRO (C10-C28) - RE	5000		22	3.7	mg/Kg	5		✱	8015C	Total/NA
Na	660		10	10	mg/Kg	10			20B	Soluble
Ca	520		2.0	2.0	mg/Kg	10			20B	Soluble
Mg	84		2.0	2.0	mg/Kg	10			20B	Soluble
Sodium Adsorption Ratio	7.0		1.2	1.2	No Unit	10			20B	Soluble
Barium	150		0.83	0.086	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: 280-95013-1

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
Cadmium	0.46		0.41	0.034	mg/Kg	1		✱	6010C	Total/NA
Chromium	16		1.2	0.048	mg/Kg	1		✱	6010C	Total/NA
Lead	19		0.75	0.26	mg/Kg	1		✱	6010C	Total/NA
Boron	12		8.3	0.81	mg/Kg	1		✱	6010C	Total/NA
Selenium	0.97	J	1.2	0.71	mg/Kg	1		✱	6010C	Total/NA
Calcium	29000	B	41	12	mg/Kg	1		✱	6010C	Total/NA
Copper	17		1.7	0.18	mg/Kg	1		✱	6010C	Total/NA
Magnesium	12000	B	17	3.1	mg/Kg	1		✱	6010C	Total/NA
Nickel	18		3.3	0.11	mg/Kg	1		✱	6010C	Total/NA
Sodium	570		410	49	mg/Kg	1		✱	6010C	Total/NA
Zinc	74		2.5	0.33	mg/Kg	1		✱	6010C	Total/NA
Arsenic	7.6		0.64	0.054	mg/Kg	1		✱	6020A	Total/NA
Mercury	0.035		0.023	0.0073	mg/Kg	1		✱	7471A	Total/NA
Chromium, hex	2.6	J	5.4	2.2	mg/Kg	1		✱	7196A	Total/NA
Chromium, trivalent	13		5.5	2.2	mg/Kg	1		✱	7196A	Total/NA
pH adj. to 25 deg C	8.0	HF	0.1	0.1	SU	1			9045D	Soluble
Temperature	19.8	HF	1.0	1.0	Degrees C	1			9045D	Soluble
Electrical Conductivity	4.9		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: 280-95013-1

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: 280-95013-1

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: 280-95013-1

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

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 Solids: 95.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.26	0.048	mg/Kg	☼	03/21/17 15:51	03/21/17 19:42	1
Ethylbenzene	0.70	F1	0.26	0.036	mg/Kg	☼	03/21/17 15:51	03/21/17 19:42	1
Toluene	0.39	F1	0.26	0.041	mg/Kg	☼	03/21/17 15:51	03/21/17 19:42	1
m-Xylene & p-Xylene	3.8	F1	0.26	0.082	mg/Kg	☼	03/21/17 15:51	03/21/17 19:42	1
o-Xylene	1.9	F1	0.13	0.037	mg/Kg	☼	03/21/17 15:51	03/21/17 19:42	1
Xylenes, Total	5.7	F1	0.26	0.037	mg/Kg	☼	03/21/17 15:51	03/21/17 19:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		52 - 135	03/21/17 15:51	03/21/17 19:42	1
Toluene-d8 (Surr)	99		65 - 135	03/21/17 15:51	03/21/17 19:42	1
4-Bromofluorobenzene (Surr)	97		65 - 135	03/21/17 15:51	03/21/17 19:42	1
Dibromofluoromethane (Surr)	101		65 - 135	03/21/17 15:51	03/21/17 19:42	1

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 Solids: 86.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.32		0.29	0.053	mg/Kg	☼	03/21/17 15:51	03/21/17 20:21	1
Ethylbenzene	2.0		0.29	0.040	mg/Kg	☼	03/21/17 15:51	03/21/17 20:21	1
Toluene	2.5		0.29	0.046	mg/Kg	☼	03/21/17 15:51	03/21/17 20:21	1
m-Xylene & p-Xylene	10		0.29	0.091	mg/Kg	☼	03/21/17 15:51	03/21/17 20:21	1
o-Xylene	4.7		0.15	0.041	mg/Kg	☼	03/21/17 15:51	03/21/17 20:21	1
Xylenes, Total	15		0.29	0.041	mg/Kg	☼	03/21/17 15:51	03/21/17 20:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		52 - 135	03/21/17 15:51	03/21/17 20:21	1
Toluene-d8 (Surr)	99		65 - 135	03/21/17 15:51	03/21/17 20:21	1
4-Bromofluorobenzene (Surr)	96		65 - 135	03/21/17 15:51	03/21/17 20:21	1
Dibromofluoromethane (Surr)	96		65 - 135	03/21/17 15:51	03/21/17 20:21	1

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 Solids: 90.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.27	0.050	mg/Kg	☼	03/21/17 15:51	03/21/17 20:40	1
Ethylbenzene	0.13	J	0.27	0.037	mg/Kg	☼	03/21/17 15:51	03/21/17 20:40	1
Toluene	0.046	J	0.27	0.043	mg/Kg	☼	03/21/17 15:51	03/21/17 20:40	1
m-Xylene & p-Xylene	0.81		0.27	0.086	mg/Kg	☼	03/21/17 15:51	03/21/17 20:40	1
o-Xylene	0.58		0.14	0.038	mg/Kg	☼	03/21/17 15:51	03/21/17 20:40	1
Xylenes, Total	1.4		0.27	0.038	mg/Kg	☼	03/21/17 15:51	03/21/17 20:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		52 - 135	03/21/17 15:51	03/21/17 20:40	1
Toluene-d8 (Surr)	90		65 - 135	03/21/17 15:51	03/21/17 20:40	1
4-Bromofluorobenzene (Surr)	91		65 - 135	03/21/17 15:51	03/21/17 20:40	1
Dibromofluoromethane (Surr)	95		65 - 135	03/21/17 15:51	03/21/17 20:40	1

TestAmerica Denver

Client Sample Results

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

TestAmerica Job ID: 280-95013-1

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

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 Solids: 95.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.42	0.013	mg/Kg	☼	03/21/17 12:32	03/24/17 19:28	40
Anthracene	ND		0.42	0.060	mg/Kg	☼	03/21/17 12:32	03/24/17 19:28	40
Benzo[a]anthracene	ND		0.42	0.075	mg/Kg	☼	03/21/17 12:32	03/24/17 19:28	40
Benzo[a]pyrene	ND		0.42	0.062	mg/Kg	☼	03/21/17 12:32	03/24/17 19:28	40
Benzo[b]fluoranthene	ND		0.42	0.10	mg/Kg	☼	03/21/17 12:32	03/24/17 19:28	40
Benzo[k]fluoranthene	ND		0.42	0.083	mg/Kg	☼	03/21/17 12:32	03/24/17 19:28	40
Chrysene	1.5		0.42	0.083	mg/Kg	☼	03/21/17 12:32	03/24/17 19:28	40
Dibenz(a,h)anthracene	ND		0.42	0.11	mg/Kg	☼	03/21/17 12:32	03/24/17 19:28	40
Fluoranthene	ND		0.42	0.083	mg/Kg	☼	03/21/17 12:32	03/24/17 19:28	40
Fluorene	1.6		0.42	0.039	mg/Kg	☼	03/21/17 12:32	03/24/17 19:28	40
Indeno[1,2,3-cd]pyrene	ND		0.42	0.092	mg/Kg	☼	03/21/17 12:32	03/24/17 19:28	40
Naphthalene	5.9		0.42	0.027	mg/Kg	☼	03/21/17 12:32	03/24/17 19:28	40
Pyrene	0.73		0.42	0.092	mg/Kg	☼	03/21/17 12:32	03/24/17 19:28	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	293	X D	39 - 120	03/21/17 12:32	03/24/17 19:28	40
Nitrobenzene-d5	13343	X D	42 - 120	03/21/17 12:32	03/24/17 19:28	40
Terphenyl-d14	354	X D	35 - 124	03/21/17 12:32	03/24/17 19:28	40

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 Solids: 86.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.23	0.0072	mg/Kg	☼	03/21/17 12:32	03/24/17 19:53	40
Anthracene	ND		0.23	0.033	mg/Kg	☼	03/21/17 12:32	03/24/17 19:53	40
Benzo[a]anthracene	ND		0.23	0.041	mg/Kg	☼	03/21/17 12:32	03/24/17 19:53	40
Benzo[a]pyrene	ND		0.23	0.033	mg/Kg	☼	03/21/17 12:32	03/24/17 19:53	40
Benzo[b]fluoranthene	ND		0.23	0.054	mg/Kg	☼	03/21/17 12:32	03/24/17 19:53	40
Benzo[k]fluoranthene	ND		0.23	0.045	mg/Kg	☼	03/21/17 12:32	03/24/17 19:53	40
Chrysene	0.45		0.23	0.045	mg/Kg	☼	03/21/17 12:32	03/24/17 19:53	40
Dibenz(a,h)anthracene	ND		0.23	0.059	mg/Kg	☼	03/21/17 12:32	03/24/17 19:53	40
Fluoranthene	ND		0.23	0.045	mg/Kg	☼	03/21/17 12:32	03/24/17 19:53	40
Fluorene	0.67		0.23	0.021	mg/Kg	☼	03/21/17 12:32	03/24/17 19:53	40
Indeno[1,2,3-cd]pyrene	ND		0.23	0.050	mg/Kg	☼	03/21/17 12:32	03/24/17 19:53	40
Naphthalene	2.2		0.23	0.015	mg/Kg	☼	03/21/17 12:32	03/24/17 19:53	40
Pyrene	0.10	J	0.23	0.050	mg/Kg	☼	03/21/17 12:32	03/24/17 19:53	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	121	X D	39 - 120	03/21/17 12:32	03/24/17 19:53	40
Nitrobenzene-d5	5833	X D	42 - 120	03/21/17 12:32	03/24/17 19:53	40
Terphenyl-d14	118	D	35 - 124	03/21/17 12:32	03/24/17 19:53	40

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 Solids: 90.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.22	0.0070	mg/Kg	☼	03/21/17 12:32	03/24/17 20:45	40
Anthracene	ND		0.22	0.031	mg/Kg	☼	03/21/17 12:32	03/24/17 20:45	40
Benzo[a]anthracene	ND		0.22	0.039	mg/Kg	☼	03/21/17 12:32	03/24/17 20:45	40
Benzo[a]pyrene	ND		0.22	0.032	mg/Kg	☼	03/21/17 12:32	03/24/17 20:45	40

TestAmerica Denver

Client Sample Results

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

TestAmerica Job ID: 280-95013-1

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

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 Solids: 90.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	0.053	J	0.22	0.052	mg/Kg	☼	03/21/17 12:32	03/24/17 20:45	40
Benzo[k]fluoranthene	ND		0.22	0.044	mg/Kg	☼	03/21/17 12:32	03/24/17 20:45	40
Chrysene	0.73		0.22	0.044	mg/Kg	☼	03/21/17 12:32	03/24/17 20:45	40
Dibenz(a,h)anthracene	ND		0.22	0.057	mg/Kg	☼	03/21/17 12:32	03/24/17 20:45	40
Fluoranthene	ND		0.22	0.044	mg/Kg	☼	03/21/17 12:32	03/24/17 20:45	40
Fluorene	0.93		0.22	0.020	mg/Kg	☼	03/21/17 12:32	03/24/17 20:45	40
Indeno[1,2,3-cd]pyrene	ND		0.22	0.048	mg/Kg	☼	03/21/17 12:32	03/24/17 20:45	40
Naphthalene	5.0		0.22	0.014	mg/Kg	☼	03/21/17 12:32	03/24/17 20:45	40
Pyrene	0.33		0.22	0.048	mg/Kg	☼	03/21/17 12:32	03/24/17 20:45	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	174	X D	39 - 120	03/21/17 12:32	03/24/17 20:45	40
Nitrobenzene-d5	14435	X D	42 - 120	03/21/17 12:32	03/24/17 20:45	40
Terphenyl-d14	202	X D	35 - 124	03/21/17 12:32	03/24/17 20:45	40

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

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 Solids: 95.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	860		63	17	mg/Kg	☼	03/21/17 11:50	03/21/17 15:32	50
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
a,a,a-Trifluorotoluene	860	X D	77 - 123	03/21/17 11:50	03/21/17 15:32	50			

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 Solids: 86.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	220		14	3.7	mg/Kg	☼	03/21/17 11:50	03/22/17 11:32	10
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
a,a,a-Trifluorotoluene	131	D X	77 - 123	03/21/17 11:50	03/22/17 11:32	10			

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 Solids: 90.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	340		27	7.3	mg/Kg	☼	03/21/17 11:50	03/22/17 12:08	20
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
a,a,a-Trifluorotoluene	297	D X	77 - 123	03/21/17 11:50	03/22/17 12:08	20			

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

Lab Sample ID: 280-95013-1

Matrix: Solid

Percent Solids: 95.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	1000		61	17	mg/Kg	☼	03/29/17 11:52	03/30/17 06:14	50

TestAmerica Denver

Client Sample Results

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

TestAmerica Job ID: 280-95013-1

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

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	888	D X	77 - 123				03/29/17 11:52	03/30/17 06:14	50
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		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	280		14	3.7	mg/Kg	☼	03/29/17 11:52	03/30/17 06:39	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	163	D X	77 - 123				03/29/17 11:52	03/30/17 06:39	10
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		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	310		26	7.2	mg/Kg	☼	03/29/17 11:52	03/30/17 07:04	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	279	D X	77 - 123				03/29/17 11:52	03/30/17 07:04	20

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

Lab Sample ID: 280-95013-1

Matrix: Solid

Percent Solids: 95.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	22000		160	27	mg/Kg	☼	03/21/17 12:14	03/22/17 12:27	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	764	D X	49 - 115				03/21/17 12:14	03/22/17 12:27	10

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 Solids: 86.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	7900		37	6.3	mg/Kg	☼	03/21/17 12:14	03/22/17 11:29	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	1559	X	49 - 115				03/21/17 12:14	03/22/17 11:29	2

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 Solids: 90.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	12000		110	18	mg/Kg	☼	03/21/17 12:14	03/22/17 11:58	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	343	D X	49 - 115				03/21/17 12:14	03/22/17 11:58	5

TestAmerica Denver

Client Sample Results

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

TestAmerica Job ID: 280-95013-1

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

Lab Sample ID: 280-95013-1

Matrix: Solid

Percent Solids: 95.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	24000		160	26	mg/Kg	☼	03/29/17 07:59	03/30/17 22:10	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	24	X D	49 - 115				03/29/17 07:59	03/30/17 22:10	5

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 Solids: 86.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	7100		46	7.7	mg/Kg	☼	03/29/17 07:59	03/30/17 22:35	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	36	X D	49 - 115				03/29/17 07:59	03/30/17 22:35	10

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 Solids: 90.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	5000		22	3.7	mg/Kg	☼	03/29/17 07:59	04/03/17 12:14	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	628	X D	49 - 115				03/29/17 07:59	04/03/17 12:14	5

Method: 20B - Sodium Adsorption Ratio - Soluble

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 Solids: 95.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	680		10	10	mg/Kg		03/21/17 11:23	03/23/17 02:10	10
Ca	870		2.0	2.0	mg/Kg		03/21/17 11:23	03/23/17 02:10	10
Mg	290		2.0	2.0	mg/Kg		03/21/17 11:23	03/23/17 02:10	10
Sodium Adsorption Ratio	5.1		1.2	1.2	No Unit		03/21/17 11:23	03/23/17 02:10	10

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 Solids: 86.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	210		10	10	mg/Kg		03/21/17 11:23	03/23/17 02:25	10
Ca	610		2.0	2.0	mg/Kg		03/21/17 11:23	03/23/17 02:25	10
Mg	120		2.0	2.0	mg/Kg		03/21/17 11:23	03/23/17 02:25	10
Sodium Adsorption Ratio	2.0		1.2	1.2	No Unit		03/21/17 11:23	03/23/17 02:25	10

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 Solids: 90.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	660		10	10	mg/Kg		03/21/17 11:23	03/23/17 02:33	10
Ca	520		2.0	2.0	mg/Kg		03/21/17 11:23	03/23/17 02:33	10
Mg	84		2.0	2.0	mg/Kg		03/21/17 11:23	03/23/17 02:33	10
Sodium Adsorption Ratio	7.0		1.2	1.2	No Unit		03/21/17 11:23	03/23/17 02:33	10

TestAmerica Denver

Client Sample Results

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

TestAmerica Job ID: 280-95013-1

Method: 6010C - Metals (ICP)

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 Solids: 95.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	290	F1	0.96	0.099	mg/Kg	☼	03/22/17 07:40	03/22/17 17:53	1
Cadmium	0.57		0.48	0.039	mg/Kg	☼	03/22/17 07:40	03/22/17 17:53	1
Chromium	18		1.4	0.055	mg/Kg	☼	03/22/17 07:40	03/22/17 17:53	1
Lead	20	F1	0.86	0.30	mg/Kg	☼	03/22/17 07:40	03/22/17 17:53	1
Boron	14		9.6	0.94	mg/Kg	☼	03/22/17 07:40	03/22/17 17:53	1
Selenium	1.6	F1	1.4	0.82	mg/Kg	☼	03/22/17 07:40	03/22/17 17:53	1
Silver	ND		0.96	0.15	mg/Kg	☼	03/22/17 07:40	03/22/17 17:53	1
Calcium	30000	B	48	13	mg/Kg	☼	03/22/17 07:40	03/22/17 17:53	1
Copper	18		1.9	0.21	mg/Kg	☼	03/22/17 07:40	03/22/17 17:53	1
Magnesium	12000	F1 B	19	3.5	mg/Kg	☼	03/22/17 07:40	03/22/17 17:53	1
Nickel	19	F1	3.8	0.13	mg/Kg	☼	03/22/17 07:40	03/22/17 17:53	1
Sodium	960		480	56	mg/Kg	☼	03/22/17 07:40	03/22/17 17:53	1
Zinc	77	F1	2.9	0.38	mg/Kg	☼	03/22/17 07:40	03/22/17 17:53	1

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 Solids: 86.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	970		1.0	0.11	mg/Kg	☼	03/22/17 07:40	03/22/17 18:05	1
Cadmium	0.60		0.52	0.043	mg/Kg	☼	03/22/17 07:40	03/22/17 18:05	1
Chromium	18		1.6	0.061	mg/Kg	☼	03/22/17 07:40	03/22/17 18:05	1
Lead	27		0.94	0.32	mg/Kg	☼	03/22/17 07:40	03/22/17 18:05	1
Boron	14		10	1.0	mg/Kg	☼	03/22/17 07:40	03/22/17 18:05	1
Selenium	1.5	J	1.6	0.90	mg/Kg	☼	03/22/17 07:40	03/22/17 18:05	1
Silver	ND		1.0	0.17	mg/Kg	☼	03/22/17 07:40	03/22/17 18:05	1
Calcium	27000	B	52	15	mg/Kg	☼	03/22/17 07:40	03/22/17 18:05	1
Copper	18		2.1	0.23	mg/Kg	☼	03/22/17 07:40	03/22/17 18:05	1
Magnesium	11000	B	21	3.9	mg/Kg	☼	03/22/17 07:40	03/22/17 18:05	1
Nickel	19		4.2	0.14	mg/Kg	☼	03/22/17 07:40	03/22/17 18:05	1
Sodium	330	J	520	62	mg/Kg	☼	03/22/17 07:40	03/22/17 18:05	1
Zinc	73		3.1	0.42	mg/Kg	☼	03/22/17 07:40	03/22/17 18:05	1

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 Solids: 90.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	150		0.83	0.086	mg/Kg	☼	03/22/17 07:40	03/22/17 18:08	1
Cadmium	0.46		0.41	0.034	mg/Kg	☼	03/22/17 07:40	03/22/17 18:08	1
Chromium	16		1.2	0.048	mg/Kg	☼	03/22/17 07:40	03/22/17 18:08	1
Lead	19		0.75	0.26	mg/Kg	☼	03/22/17 07:40	03/22/17 18:08	1
Boron	12		8.3	0.81	mg/Kg	☼	03/22/17 07:40	03/22/17 18:08	1
Selenium	0.97	J	1.2	0.71	mg/Kg	☼	03/22/17 07:40	03/22/17 18:08	1
Silver	ND		0.83	0.13	mg/Kg	☼	03/22/17 07:40	03/22/17 18:08	1
Calcium	29000	B	41	12	mg/Kg	☼	03/22/17 07:40	03/22/17 18:08	1
Copper	17		1.7	0.18	mg/Kg	☼	03/22/17 07:40	03/22/17 18:08	1
Magnesium	12000	B	17	3.1	mg/Kg	☼	03/22/17 07:40	03/22/17 18:08	1
Nickel	18		3.3	0.11	mg/Kg	☼	03/22/17 07:40	03/22/17 18:08	1
Sodium	570		410	49	mg/Kg	☼	03/22/17 07:40	03/22/17 18:08	1
Zinc	74		2.5	0.33	mg/Kg	☼	03/22/17 07:40	03/22/17 18:08	1

TestAmerica Denver

Client Sample Results

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

TestAmerica Job ID: 280-95013-1

Method: 6020A - Metals (ICP/MS)

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
Arsenic	7.6		0.55	0.046	mg/Kg	☼	03/22/17 07:40	03/22/17 20:24	1

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
Arsenic	7.2		0.64	0.054	mg/Kg	☼	03/22/17 07:40	03/22/17 20:42	1

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
Arsenic	7.6		0.64	0.054	mg/Kg	☼	03/22/17 07:40	03/22/17 20:46	1

Lab Sample ID: 280-95013-3

Matrix: Solid

Percent Solids: 90.4

Method: 7471A - Mercury (CVAA)

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
Mercury	0.029		0.021	0.0067	mg/Kg	☼	03/22/17 12:31	03/22/17 22:11	1

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
Mercury	0.029		0.021	0.0067	mg/Kg	☼	03/22/17 12:31	03/22/17 22:18	1

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
Mercury	0.035		0.023	0.0073	mg/Kg	☼	03/22/17 12:31	03/22/17 22:20	1

Lab Sample ID: 280-95013-3

Matrix: Solid

Percent Solids: 90.4

General Chemistry

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
Chromium, hex	2.2	J	5.1	2.0	mg/Kg	☼	03/22/17 19:20	03/22/17 23:10	1
Chromium, trivalent	16		5.2	2.1	mg/Kg	☼		03/22/17 23:10	1
Percent Moisture	4.5		0.1	0.1	%			03/21/17 08:43	1
Percent Solids	95.5		0.1	0.1	%			03/21/17 08:43	1

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
Chromium, hex	3.4	J	5.7	2.3	mg/Kg	☼	03/22/17 19:20	03/22/17 23:10	1
Chromium, trivalent	15		5.8	2.3	mg/Kg	☼		03/22/17 23:10	1

Lab Sample ID: 280-95013-2

Matrix: Solid

Percent Solids: 86.3

TestAmerica Denver

Client Sample Results

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

TestAmerica Job ID: 280-95013-1

General Chemistry (Continued)

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 Solids: 86.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.7		0.1	0.1	%			03/21/17 08:43	1
Percent Solids	86.3		0.1	0.1	%			03/21/17 08:43	1

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 Solids: 90.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	2.6	J	5.4	2.2	mg/Kg	☼	03/22/17 19:20	03/22/17 23:10	1
Chromium, trivalent	13		5.5	2.2	mg/Kg	☼		03/22/17 23:10	1
Percent Moisture	9.6		0.1	0.1	%			03/21/17 08:43	1
Percent Solids	90.4		0.1	0.1	%			03/21/17 08:43	1

General Chemistry - Soluble

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 Solids: 95.5

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			03/24/17 15:47	1
Temperature	19.5	HF	1.0	1.0	Degrees C			03/24/17 15:47	1
Electrical Conductivity	7.0		0.010	0.010	mmhos/cm		03/24/17 13:47	03/27/17 11:00	1

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 Solids: 86.3

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			03/24/17 15:53	1
Temperature	19.7	HF	1.0	1.0	Degrees C			03/24/17 15:53	1
Electrical Conductivity	4.0		0.010	0.010	mmhos/cm		03/24/17 13:47	03/27/17 11:00	1

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 Solids: 90.4

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			03/24/17 15:53	1
Temperature	19.8	HF	1.0	1.0	Degrees C			03/24/17 15:53	1
Electrical Conductivity	4.9		0.010	0.010	mmhos/cm		03/24/17 13:47	03/27/17 11:00	1

TestAmerica Denver

Surrogate Summary

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

TestAmerica Job ID: 280-95013-1

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)
280-95013-1	RC4-EX-15-0.25	109	99	97	101
280-95013-1 MS	RC4-EX-15-0.25	96	112	98	107
280-95013-1 MSD	RC4-EX-15-0.25	102	109	102	109
280-95013-2	RC4-EX-16-0.25	103	99	96	96
280-95013-3	RC4-EX-17-0.25	104	90	91	95
LCS 280-366274/2-A	Lab Control Sample	92	96	91	102
MB 280-366274/1-A	Method Blank	92	96	96	97
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)
280-95013-1	RC4-EX-15-0.25	293 X D	13343 X D	354 X D
280-95013-2	RC4-EX-16-0.25	121 X D	5833 X D	118 D
280-95013-3	RC4-EX-17-0.25	174 X D	14435 X D	202 X D
LCS 280-366214/2-A	Lab Control Sample	77	74	71
LCSD 280-366214/3-A	Lab Control Sample Dup	82	77	80
MB 280-366214/1-A	Method Blank	69	64	69
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)	
280-95013-1	RC4-EX-15-0.25	860 X D	
280-95013-1 - RE	RC4-EX-15-0.25	888 D X	
280-95013-2	RC4-EX-16-0.25	131 D X	
280-95013-2 - RE	RC4-EX-16-0.25	163 D X	
280-95013-3	RC4-EX-17-0.25	297 D X	
280-95013-3 - RE	RC4-EX-17-0.25	279 D X	
LCS 280-366223/2-A	Lab Control Sample	93	
LCS 280-367288/2-A	Lab Control Sample	97	
MB 280-366223/1-A	Method Blank	94	
MB 280-367288/1-A	Method Blank	101	

TestAmerica Denver

Surrogate Summary

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

TestAmerica Job ID: 280-95013-1

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)
280-95013-1	RC4-EX-15-0.25	764 D X
280-95013-1 - RE	RC4-EX-15-0.25	24 X D
280-95013-2	RC4-EX-16-0.25	1559 X
280-95013-2 - RE	RC4-EX-16-0.25	36 X D
280-95013-3	RC4-EX-17-0.25	343 D X
280-95013-3 - RE	RC4-EX-17-0.25	628 X D
LCS 280-366197/2-A	Lab Control Sample	83
LCS 280-367209/2-A	Lab Control Sample	114
MB 280-366197/1-A	Method Blank	85
MB 280-367209/1-A	Method Blank	116 X

Surrogate Legend

OTPH = o-Terphenyl (Surr)

QC Sample Results

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

TestAmerica Job ID: 280-95013-1

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	ND		0.25	0.045	mg/Kg		03/21/17 15:51	03/21/17 18:44	1
Ethylbenzene	ND		0.25	0.034	mg/Kg		03/21/17 15:51	03/21/17 18:44	1
Toluene	ND		0.25	0.039	mg/Kg		03/21/17 15:51	03/21/17 18:44	1
m-Xylene & p-Xylene	ND		0.25	0.078	mg/Kg		03/21/17 15:51	03/21/17 18:44	1
o-Xylene	ND		0.13	0.035	mg/Kg		03/21/17 15:51	03/21/17 18:44	1
Xylenes, Total	ND		0.25	0.035	mg/Kg		03/21/17 15:51	03/21/17 18:44	1

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 18:44	1
Toluene-d8 (Surr)	96		65 - 135	03/21/17 15:51	03/21/17 18:44	1
4-Bromofluorobenzene (Surr)	96		65 - 135	03/21/17 15:51	03/21/17 18:44	1
Dibromofluoromethane (Surr)	97		65 - 135	03/21/17 15:51	03/21/17 18:44	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	1.98	2.04		mg/Kg		103	65 - 135
Ethylbenzene	1.98	2.00		mg/Kg		101	65 - 135
Toluene	1.98	2.15		mg/Kg		108	65 - 135
m-Xylene & p-Xylene	1.98	2.01		mg/Kg		101	65 - 135
o-Xylene	1.98	1.98		mg/Kg		100	65 - 135
Xylenes, Total	3.97	3.99		mg/Kg		101	65 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		52 - 135
Toluene-d8 (Surr)	96		65 - 135
4-Bromofluorobenzene (Surr)	91		65 - 135
Dibromofluoromethane (Surr)	102		65 - 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	ND		2.10	2.58		mg/Kg	☼	123	65 - 135
Ethylbenzene	0.70	F1	2.10	4.60	F1	mg/Kg	☼	186	65 - 135
Toluene	0.39	F1	2.10	4.91	F1	mg/Kg	☼	215	65 - 135
m-Xylene & p-Xylene	3.8	F1	2.10	13.5	E F1	mg/Kg	☼	461	65 - 135
o-Xylene	1.9	F1	2.10	7.43	F1	mg/Kg	☼	261	65 - 135
Xylenes, Total	5.7	F1	4.20	20.9	F1	mg/Kg	☼	362	65 - 135

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		52 - 135
Toluene-d8 (Surr)	112		65 - 135
4-Bromofluorobenzene (Surr)	98		65 - 135

TestAmerica Denver

QC Sample Results

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

TestAmerica Job ID: 280-95013-1

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
Dibromofluoromethane (Surr)	107		65 - 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	ND		2.08	2.47		mg/Kg	☼	119	65 - 135	4	20
Ethylbenzene	0.70	F1	2.08	4.23	F1	mg/Kg	☼	170	65 - 135	8	20
Toluene	0.39	F1	2.08	4.64	F1	mg/Kg	☼	204	65 - 135	6	20
m-Xylene & p-Xylene	3.8	F1	2.08	12.5	E F1	mg/Kg	☼	418	65 - 135	8	23
o-Xylene	1.9	F1	2.08	6.95	F1	mg/Kg	☼	241	65 - 135	7	20
Xylenes, Total	5.7	F1	4.16	19.5	F1	mg/Kg	☼	330	65 - 135	7	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		52 - 135
Toluene-d8 (Surr)	109		65 - 135
4-Bromofluorobenzene (Surr)	102		65 - 135
Dibromofluoromethane (Surr)	109		65 - 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
Acenaphthene	ND		0.0050	0.00016	mg/Kg		03/21/17 12:32	03/24/17 18:11	1
Anthracene	ND		0.0050	0.00072	mg/Kg		03/21/17 12:32	03/24/17 18:11	1
Benzo[a]anthracene	ND		0.0050	0.00090	mg/Kg		03/21/17 12:32	03/24/17 18:11	1
Benzo[a]pyrene	ND		0.0050	0.00074	mg/Kg		03/21/17 12:32	03/24/17 18:11	1
Benzo[b]fluoranthene	ND		0.0050	0.0012	mg/Kg		03/21/17 12:32	03/24/17 18:11	1
Benzo[k]fluoranthene	ND		0.0050	0.0010	mg/Kg		03/21/17 12:32	03/24/17 18:11	1
Chrysene	ND		0.0050	0.0010	mg/Kg		03/21/17 12:32	03/24/17 18:11	1
Dibenz(a,h)anthracene	ND		0.0050	0.0013	mg/Kg		03/21/17 12:32	03/24/17 18:11	1
Fluoranthene	ND		0.0050	0.0010	mg/Kg		03/21/17 12:32	03/24/17 18:11	1
Fluorene	ND		0.0050	0.00047	mg/Kg		03/21/17 12:32	03/24/17 18:11	1
Indeno[1,2,3-cd]pyrene	ND		0.0050	0.0011	mg/Kg		03/21/17 12:32	03/24/17 18:11	1
Naphthalene	ND		0.0050	0.00033	mg/Kg		03/21/17 12:32	03/24/17 18:11	1
Pyrene	ND		0.0050	0.0011	mg/Kg		03/21/17 12:32	03/24/17 18:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	69		39 - 120	03/21/17 12:32	03/24/17 18:11	1
Nitrobenzene-d5	64		42 - 120	03/21/17 12:32	03/24/17 18:11	1
Terphenyl-d14	69		35 - 124	03/21/17 12:32	03/24/17 18:11	1

TestAmerica Denver

QC Sample Results

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

TestAmerica Job ID: 280-95013-1

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
Acenaphthene	0.0300	0.0299		mg/Kg		100	35 - 120
Anthracene	0.0300	0.0279		mg/Kg		93	43 - 120
Benzo[a]anthracene	0.0300	0.0300		mg/Kg		100	36 - 120
Benzo[a]pyrene	0.0300	0.0240		mg/Kg		80	20 - 120
Benzo[b]fluoranthene	0.0300	0.0262		mg/Kg		87	37 - 120
Benzo[k]fluoranthene	0.0300	0.0265		mg/Kg		88	46 - 120
Chrysene	0.0300	0.0328		mg/Kg		109	34 - 120
Dibenz(a,h)anthracene	0.0300	0.0254		mg/Kg		85	20 - 120
Fluoranthene	0.0300	0.0266		mg/Kg		89	45 - 120
Fluorene	0.0300	0.0299		mg/Kg		100	44 - 120
Indeno[1,2,3-cd]pyrene	0.0300	0.0228		mg/Kg		76	20 - 127
Naphthalene	0.0300	0.0294		mg/Kg		98	44 - 120
Pyrene	0.0300	0.0271		mg/Kg		90	43 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	77		39 - 120
Nitrobenzene-d5	74		42 - 120
Terphenyl-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
Acenaphthene	0.0300	0.0316		mg/Kg		105	35 - 120	5	50
Anthracene	0.0300	0.0293		mg/Kg		98	43 - 120	5	50
Benzo[a]anthracene	0.0300	0.0315		mg/Kg		105	36 - 120	5	40
Benzo[a]pyrene	0.0300	0.0247		mg/Kg		82	20 - 120	3	30
Benzo[b]fluoranthene	0.0300	0.0272		mg/Kg		91	37 - 120	4	28
Benzo[k]fluoranthene	0.0300	0.0278		mg/Kg		93	46 - 120	5	28
Chrysene	0.0300	0.0341		mg/Kg		114	34 - 120	4	41
Dibenz(a,h)anthracene	0.0300	0.0259		mg/Kg		86	20 - 120	2	25
Fluoranthene	0.0300	0.0284		mg/Kg		95	45 - 120	6	30
Fluorene	0.0300	0.0320		mg/Kg		107	44 - 120	7	50
Indeno[1,2,3-cd]pyrene	0.0300	0.0230		mg/Kg		77	20 - 127	1	50
Naphthalene	0.0300	0.0312		mg/Kg		104	44 - 120	6	50
Pyrene	0.0300	0.0289		mg/Kg		96	43 - 120	6	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	82		39 - 120
Nitrobenzene-d5	77		42 - 120
Terphenyl-d14	80		35 - 124

TestAmerica Denver

QC Sample Results

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

TestAmerica Job ID: 280-95013-1

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	%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				

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
GRO (C6-C10)	ND		1.2	0.33	mg/Kg		03/29/17 11:52	03/29/17 21:59	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	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	%Rec. Limits
GRO (C6-C10)	5.56	6.28		mg/Kg		113	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 280-366197/1-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

TestAmerica Denver

QC Sample Results

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

TestAmerica Job ID: 280-95013-1

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 (C10-C28)	66.7	67.9		mg/Kg		102	53 - 115
Surrogate	%Recovery	LCS Qualifier	Limits				
o-Terphenyl (Surr)	83		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 (C10-C28)	ND		4.0	0.68	mg/Kg		03/29/17 07:59	03/30/17 21:21	1
Surrogate	%Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac	
o-Terphenyl (Surr)	116	X	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 (C10-C28)	66.7	62.5		mg/Kg		94	53 - 115
Surrogate	%Recovery	LCS Qualifier	Limits				
o-Terphenyl (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
Na	ND		10	10	mg/Kg		03/21/17 11:23	03/23/17 02:07	10
Ca	ND		2.0	2.0	mg/Kg		03/21/17 11:23	03/23/17 02:07	10
Mg	ND		2.0	2.0	mg/Kg		03/21/17 11:23	03/23/17 02:07	10
Sodium Adsorption Ratio	ND		1.2	1.2	No Unit		03/21/17 11:23	03/23/17 02:07	10

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
Na	210		174		mg/Kg		19	20
Ca	610		609		mg/Kg		0.3	20
Mg	120		112		mg/Kg		6	20
Sodium Adsorption Ratio	2.0		1.70		No Unit		18	20

TestAmerica Denver

QC Sample Results

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

TestAmerica Job ID: 280-95013-1

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	ND		1.0	0.10	mg/Kg		03/22/17 07:40	03/22/17 17:48	1
Cadmium	ND		0.50	0.041	mg/Kg		03/22/17 07:40	03/22/17 17:48	1
Chromium	ND		1.5	0.058	mg/Kg		03/22/17 07:40	03/22/17 17:48	1
Lead	ND		0.90	0.31	mg/Kg		03/22/17 07:40	03/22/17 17:48	1
Boron	ND		10	0.98	mg/Kg		03/22/17 07:40	03/22/17 17:48	1
Selenium	ND		1.5	0.86	mg/Kg		03/22/17 07:40	03/22/17 17:48	1
Silver	ND		1.0	0.16	mg/Kg		03/22/17 07:40	03/22/17 17:48	1
Calcium	17.0	J	50	14	mg/Kg		03/22/17 07:40	03/22/17 17:48	1
Copper	ND		2.0	0.22	mg/Kg		03/22/17 07:40	03/22/17 17:48	1
Magnesium	4.80	J	20	3.7	mg/Kg		03/22/17 07:40	03/22/17 17:48	1
Nickel	ND		4.0	0.13	mg/Kg		03/22/17 07:40	03/22/17 17:48	1
Sodium	ND		500	59	mg/Kg		03/22/17 07:40	03/22/17 17:48	1
Zinc	ND		3.0	0.40	mg/Kg		03/22/17 07:40	03/22/17 17:48	1

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Barium	200	199		mg/Kg		99	87 - 112
Cadmium	10.0	10.4		mg/Kg		104	87 - 110
Chromium	20.0	20.4		mg/Kg		102	84 - 114
Lead	50.0	50.9		mg/Kg		102	86 - 110
Boron	100	100		mg/Kg		100	80 - 120
Selenium	200	201		mg/Kg		100	83 - 110
Silver	5.00	5.40		mg/Kg		108	87 - 114
Copper	25.0	25.5		mg/Kg		102	88 - 110
Nickel	50.0	50.0		mg/Kg		100	87 - 110
Zinc	50.0	50.3		mg/Kg		101	76 - 114

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Barium	290	F1	192	355	F1	mg/Kg	☼	35	52 - 159
Cadmium	0.57		9.58	7.53		mg/Kg	☼	73	40 - 130
Chromium	18		19.2	39.4		mg/Kg	☼	113	70 - 200
Lead	20	F1	47.9	47.9	F1	mg/Kg	☼	59	70 - 200
Boron	14		95.8	91.9		mg/Kg	☼	81	80 - 120
Selenium	1.6	F1	192	137	F1	mg/Kg	☼	71	76 - 104
Silver	ND		4.79	3.87		mg/Kg	☼	81	75 - 141
Copper	18		23.9	32.8		mg/Kg	☼	62	37 - 187
Nickel	19	F1	47.9	48.0	F1	mg/Kg	☼	60	61 - 126
Zinc	77	F1	47.9	99.0	F1	mg/Kg	☼	45	70 - 200

TestAmerica Denver

QC Sample Results

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

TestAmerica Job ID: 280-95013-1

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	F1	203	425		mg/Kg	☼	67	52 - 159	18	20
Cadmium	0.57		10.1	8.36		mg/Kg	☼	77	40 - 130	10	20
Chromium	18		20.3	42.3		mg/Kg	☼	121	70 - 200	7	20
Lead	20	F1	50.7	53.1	F1	mg/Kg	☼	66	70 - 200	10	20
Boron	14		101	101		mg/Kg	☼	86	80 - 120	10	20
Selenium	1.6	F1	203	153	F1	mg/Kg	☼	75	76 - 104	11	20
Silver	ND		5.07	4.32		mg/Kg	☼	85	75 - 141	11	20
Copper	18		25.3	35.7		mg/Kg	☼	70	37 - 187	8	20
Nickel	19	F1	50.7	52.4		mg/Kg	☼	66	61 - 126	9	20
Zinc	77	F1	50.7	106	F1	mg/Kg	☼	56	70 - 200	7	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	ND		0.60	0.051	mg/Kg		03/22/17 07:40	03/22/17 20:16	1

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	18.4		mg/Kg		92	83 - 111

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	7.6		20.5	26.7		mg/Kg	☼	94	83 - 111

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	7.6		20.3	26.2		mg/Kg	☼	92	83 - 111	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
Mercury	ND		0.017	0.0055	mg/Kg		03/22/17 12:31	03/22/17 22:06	1

TestAmerica Denver

QC Sample Results

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

TestAmerica Job ID: 280-95013-1

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	0.417	0.430		mg/Kg		103	87 - 111

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		0.485	0.481		mg/Kg	✱	93	87 - 111

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		0.494	0.490		mg/Kg	✱	93	87 - 111	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	ND		4.9	2.0	mg/Kg		03/22/17 19:20	03/22/17 23:10	1

Lab Sample ID: LCS 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	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Chromium, hex	64.5	62.4		mg/Kg		97	80 - 120

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	39.9	38.3		mg/Kg		96	80 - 120

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	39.6	38.8		mg/Kg		98	80 - 120	1	20

TestAmerica Denver

QC Sample Results

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

TestAmerica Job ID: 280-95013-1

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
Chromium, hex	2.2	J	67.1	72.8		mg/Kg	☼	105	75 - 125

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
Chromium, hex	2.2	J	41.3	36.8		mg/Kg	☼	84	75 - 125

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
Chromium, hex	2.2	J	2.46	J	mg/Kg	☼	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 adj. to 25 deg C	7.00	7.0		SU		100	97 - 103

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
Electrical Conductivity	7.0		7.00		mmhos/cm		0.1	10

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 Moisture	4.5		4.4		%		0.9	20
Percent Solids	95.5		95.6		%		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

Date Collected: 03/18/17 15:00

Date Received: 03/21/17 00:00

Lab Sample ID: 280-95013-1

Matrix: Solid

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

Date Collected: 03/18/17 15:00

Date Received: 03/21/17 00:00

Lab Sample ID: 280-95013-1

Matrix: Solid

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

Date Collected: 03/18/17 16:20

Date Received: 03/21/17 00:00

Lab Sample ID: 280-95013-2

Matrix: Solid

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	KGV	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: 280-95013-1

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: 280-95013-1

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

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 # 1

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

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) PMI

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) PMI

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

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

TestAmerica Denver

4955 Yarrow Street
Arvada, 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: Address: City: State, Zip: Phone: Email: Project Name: Site:		Sampler: Lab Pkt: E-Mail: State of Origin: Colorado		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:			
PO #: WO #: Project #: 28016458 SSOW#:		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NH4OH F - MeOH G - Ammonia H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:			
Sample Identification - Client ID (Lab ID)		Total Number of Containers			
RC4-EX-15-0.25 (280-95013-1)	Sample Date: 3/18/17	Sample Time: 15:00	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=other)	Special Instructions/Note:
RC4-EX-16-0.25 (280-95013-2)	Sample Date: 3/18/17	Sample Time: 16:20	Sample Type: Solid	Matrix: Solid	
RC4-EX-17-0.25 (280-95013-3)	Sample Date: 3/19/17	Sample Time: 14:40	Sample Type: Solid	Matrix: Solid	
Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		7196A, CR3/ Trivalent Chromium (Cr(III)) 7196A/3080A Hexavalent Chromium (Cr(VI)) 9050A/Salt Paste Prep Electrical Conductivity	
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analysis & accreditation compliance upon our subcontracted 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)					
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:					
Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment:					
Relinquished by: <i>Chandra Cue</i> Date/Time: 3/21/17 1500 Company: TAD					
Relinquished by: _____ Date/Time: _____ Company:					
Relinquished by: _____ Date/Time: _____ Company:					
Custody Seals Intact: _____ Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks:					

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-95013-1

Login Number: 95013

List Number: 1

Creator: Bieniulis, Dylan T

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	

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

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.

Table of Contents

Cover Page 1

Table of Contents 2

Definitions 3

Case Narrative 4

Detection Summary 6

Method Summary 7

Sample Summary 8

Client Sample Results 9

Surrogate Summary 10

QC Sample Results 11

QC Association 12

Chronicle 14

Certification Summary 15

Chain of Custody 16

Receipt Checklists 17



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: 280-95013-2

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: 280-95013-2

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: 280-95013-2

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	81	14	mg/Kg	☼	03/21/17 12:14	03/27/17 14:38	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	3483	D X	49 - 115				03/21/17 12:14	03/27/17 14:38	10

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	46	7.8	mg/Kg	☼	03/21/17 12:14	03/27/17 16:05	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	233	D X	49 - 115				03/21/17 12:14	03/27/17 16:05	10

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	44	7.5	mg/Kg	☼	03/21/17 12:14	03/27/17 15:36	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	1908	D X	49 - 115				03/21/17 12:14	03/27/17 15:36	5

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		100	17	mg/Kg	☼	03/28/17 08:05	03/30/17 19:42	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	3512	D X	49 - 115				03/28/17 08:05	03/30/17 19:42	5

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		46	7.8	mg/Kg	☼	03/28/17 08:05	03/29/17 20:15	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	54	D	49 - 115				03/28/17 08:05	03/29/17 20:15	10

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		44	7.4	mg/Kg	☼	03/28/17 08:05	03/30/17 20:07	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	1063	D X	49 - 115				03/28/17 08:05	03/30/17 20:07	5

Lab Sample ID: 280-95013-3

Matrix: Solid

Percent Solids: 90.4

TestAmerica Denver

Surrogate Summary

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

TestAmerica Job ID: 280-95013-2

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)
280-95013-1	RC4-EX-15-0.25	3483 D X
280-95013-1 - RE	RC4-EX-15-0.25	3512 D X
280-95013-2	RC4-EX-16-0.25	233 D X
280-95013-2 - RE	RC4-EX-16-0.25	54 D
280-95013-3	RC4-EX-17-0.25	1908 D X
280-95013-3 - RE	RC4-EX-17-0.25	1063 D X
LCS 280-366209/2-B	Lab Control Sample	85
LCS 280-367025/2-B	Lab Control Sample	123 X
LCSD 280-366209/3-B	Lab Control Sample Dup	84
MB 280-366209/1-B	Method Blank	83
MB 280-367025/1-B	Method Blank	119 X

Surrogate Legend

OTPH = o-Terphenyl (Surr)

QC Sample Results

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

TestAmerica Job ID: 280-95013-2

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 (C10-C28)	0.799	J	4.0	0.68	mg/Kg	-	03/21/17 12:14	03/25/17 02:41	1
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 (C10-C28)	66.7	56.8		mg/Kg	-	85	53 - 115		
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 (C10-C28)	66.7	62.0		mg/Kg	-	93	53 - 115	9	23
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 (C10-C28)	ND		4.0	0.68	mg/Kg	-	03/28/17 08:05	03/29/17 19:01	1
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 (C10-C28)	66.7	68.4		mg/Kg	-	103	53 - 115		
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 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	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 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	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 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	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 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: 280-95013-2

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: 280-95013-2

Login Number: 95013

List Number: 1

Creator: Bieniulis, Dylan T

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: 280-95014-1

Client Project/Site: Stantec CVX - Rangely, CO

Revision: 1

For:

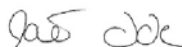
Stantec Consulting Corp.

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.

Table of Contents

Cover Page 1

Table of Contents 2

Definitions 3

Case Narrative 4

Detection Summary 6

Method Summary 8

Sample Summary 9

Client Sample Results 10

Surrogate Summary 16

QC Sample Results 17

QC Association 19

Chronicle 21

Certification Summary 26

Chain of Custody 27

Receipt Checklists 28



Definitions/Glossary

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

TestAmerica Job ID: 280-95014-1

Qualifiers

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
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
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 commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, 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: 280-95014-1

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: 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	%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	%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	%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	%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	%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	Limits	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								

TestAmerica Denver

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: 280-95014-1

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	Moisture		1			366177	03/21/17 08:43	A1D	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	5035			9.88 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 12:33	TEM	TAL DEN
Total/NA	Prep	3546			30.1 g	10 mL	366197	03/21/17 12:14	JDW	TAL DEN
Total/NA	Analysis	8015C		2			366278	03/22/17 08:59	TEM	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	Moisture		1			366177	03/21/17 08:43	A1D	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	5035			10.19 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 17:12	KDK	TAL DEN
Total/NA	Prep	3546			31.3 g	10 mL	366197	03/21/17 12:14	JDW	TAL DEN
Total/NA	Analysis	8015C		5			366278	03/22/17 09:28	TEM	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	Moisture		1			366177	03/21/17 08:43	A1D	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	5035			10.20 g	10 mL	366223	03/21/17 11:50	KDK	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-95014-1

Client Sample ID: RC4-SC-20

Lab Sample ID: 280-95014-3

Date Collected: 03/20/17 16:10

Matrix: Solid

Date Received: 03/21/17 07:25

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	8015C		5	0.1 mL	5 mL	366439	03/22/17 12:58	TEM	TAL DEN
Total/NA	Prep	3546			32.8 g	1 mL	366197	03/21/17 12:14	JDW	TAL DEN
Total/NA	Analysis	8015C		5			366278	03/22/17 09:56	TEM	TAL DEN

Client Sample ID: RC4-SC-21

Lab Sample ID: 280-95014-4

Date Collected: 03/20/17 16:15

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	Moisture		1			366177	03/21/17 08:43	A1D	TAL DEN

Client Sample ID: RC4-SC-21

Lab Sample ID: 280-95014-4

Date Collected: 03/20/17 16:15

Matrix: Solid

Date Received: 03/21/17 07:25

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	5035			9.78 g	10 mL	366223	03/21/17 11:50	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	366439	03/22/17 13:24	TEM	TAL DEN
Total/NA	Prep	3546			31.6 g	1 mL	366197	03/21/17 12:14	JDW	TAL DEN
Total/NA	Analysis	8015C		1			366278	03/22/17 00:46	TEM	TAL DEN

Client Sample ID: RC4-SC-22

Lab Sample ID: 280-95014-5

Date Collected: 03/20/17 16:20

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	Moisture		1			366177	03/21/17 08:43	A1D	TAL DEN

Client Sample ID: RC4-SC-22

Lab Sample ID: 280-95014-5

Date Collected: 03/20/17 16:20

Matrix: Solid

Date Received: 03/21/17 07:25

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	5035			10.02 g	10 mL	366223	03/21/17 11:50	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	366439	03/22/17 13:49	TEM	TAL DEN
Total/NA	Prep	3546			31.1 g	1 mL	366197	03/21/17 12:14	JDW	TAL DEN
Total/NA	Analysis	8015C		1			366278	03/22/17 01:15	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-95014-1

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

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-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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			9.96 g	10 mL	366223	03/21/17 11:50	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	366439	03/22/17 14:15	TEM	TAL DEN
Total/NA	Prep	3546			30.2 g	1 mL	366197	03/21/17 12:14	JDW	TAL DEN
Total/NA	Analysis	8015C		1			366278	03/22/17 01:43	TEM	TAL DEN

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

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-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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			9.78 g	10 mL	366223	03/21/17 11:50	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	366439	03/22/17 15:06	TEM	TAL DEN
Total/NA	Prep	3546			30.5 g	1 mL	366197	03/21/17 12:14	JDW	TAL DEN
Total/NA	Analysis	8015C		1			366278	03/22/17 03:09	TEM	TAL DEN

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

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-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	Prep	5035			10.16 g	10 mL	366223	03/21/17 11:50	KDK	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-95014-1

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	Analysis	8015C		1	0.1 mL	5 mL	366439	03/22/17 15:32	TEM	TAL DEN
Total/NA	Prep	3546			30.0 g	1 mL	366197	03/21/17 12:14	JDW	TAL DEN
Total/NA	Analysis	8015C		1			366278	03/22/17 03:37	TEM	TAL DEN

Client Sample ID: RC4-SC-26

Lab Sample ID: 280-95014-9

Date Collected: 03/20/17 16:50

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	Moisture		1			366177	03/21/17 08:43	A1D	TAL DEN

Client Sample ID: RC4-SC-26

Lab Sample ID: 280-95014-9

Date Collected: 03/20/17 16:50

Matrix: Solid

Date Received: 03/21/17 07:25

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	5035			10.22 g	10 mL	366223	03/21/17 11:50	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	366439	03/22/17 15:57	TEM	TAL DEN
Total/NA	Prep	3546			30.7 g	1 mL	366197	03/21/17 12:14	JDW	TAL DEN
Total/NA	Analysis	8015C		1			366278	03/22/17 04:06	TEM	TAL DEN

Client Sample ID: RC4-SC-27

Lab Sample ID: 280-95014-10

Date Collected: 03/20/17 17:00

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	Moisture		1			366177	03/21/17 08:43	A1D	TAL DEN

Client Sample ID: RC4-SC-27

Lab Sample ID: 280-95014-10

Date Collected: 03/20/17 17:00

Matrix: Solid

Date Received: 03/21/17 07:25

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	5035			10.25 g	10 mL	366223	03/21/17 11:50	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	366439	03/22/17 16:23	TEM	TAL DEN
Total/NA	Prep	3546			31.2 g	1 mL	366197	03/21/17 12:14	JDW	TAL DEN
Total/NA	Analysis	8015C		1			366278	03/22/17 04:35	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-95014-1

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	Moisture		1			366177	03/21/17 08:43	A1D	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	5035			10.09 g	10 mL	366223	03/21/17 11:50	KDK	TAL DEN
Total/NA	Analysis	8015C		5	0.1 mL	5 mL	366439	03/22/17 16:49	TEM	TAL DEN
Total/NA	Prep	3546			31.1 g	2 mL	366197	03/21/17 12:14	JDW	TAL DEN
Total/NA	Analysis	8015C		2			366278	03/22/17 10:25	TEM	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	Moisture		1			366177	03/21/17 08:43	A1D	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	5035			10.05 g	10 mL	366223	03/21/17 11:50	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	366439	03/22/17 17:14	TEM	TAL DEN
Total/NA	Prep	3546			30.3 g	1 mL	366197	03/21/17 12:14	JDW	TAL DEN
Total/NA	Analysis	8015C		1			366278	03/22/17 05:32	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: 280-95014-1

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

TestAmerica Laboratories, Inc.

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		Site Contact: Bethany Lucente Lab Contact: Jamie Ide		Date: _____ Carrier: Courier		COC No: _____ of 2 COCs																																																																
Client Contact Stanlec 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		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		Sample Identification <table border="1"> <thead> <tr> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (c-comp, g-grab)</th> <th>Matrix</th> <th># of Cont.</th> </tr> </thead> <tbody> <tr><td>3/20/17</td><td>1600</td><td>g</td><td>se</td><td>1</td></tr> <tr><td>3/20/17</td><td>1605</td><td>g</td><td>se</td><td>1</td></tr> <tr><td>3/20/17</td><td>1610</td><td>g</td><td>se</td><td>1</td></tr> <tr><td>3/20/17</td><td>1615</td><td>g</td><td>se</td><td>1</td></tr> <tr><td>3/20/17</td><td>1620</td><td>g</td><td>se</td><td>1</td></tr> <tr><td>3/20/17</td><td>1625</td><td>g</td><td>se</td><td>1</td></tr> <tr><td>3/20/17</td><td>1635</td><td>g</td><td>se</td><td>1</td></tr> <tr><td>3/20/17</td><td>1645</td><td>g</td><td>se</td><td>1</td></tr> <tr><td>3/20/17</td><td>1650</td><td>g</td><td>se</td><td>1</td></tr> <tr><td>3/20/17</td><td>1700</td><td>g</td><td>se</td><td>1</td></tr> <tr><td>3/20/17</td><td>1710</td><td>g</td><td>se</td><td>1</td></tr> <tr><td>3/20/17</td><td>1715</td><td>g</td><td>se</td><td>1</td></tr> </tbody> </table>		Sample Date	Sample Time	Sample Type (c-comp, g-grab)	Matrix	# of Cont.	3/20/17	1600	g	se	1	3/20/17	1605	g	se	1	3/20/17	1610	g	se	1	3/20/17	1615	g	se	1	3/20/17	1620	g	se	1	3/20/17	1625	g	se	1	3/20/17	1635	g	se	1	3/20/17	1645	g	se	1	3/20/17	1650	g	se	1	3/20/17	1700	g	se	1	3/20/17	1710	g	se	1	3/20/17	1715	g	se	1	Sample Specific Notes: 122 PPM 165 PPM 175 PPM PPM PPM PPM PPM 21 PPM 1 PPM 56 PPM 192 PPM 27 PPM	
Sample Date	Sample Time	Sample Type (c-comp, g-grab)	Matrix	# of Cont.																																																																				
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3/20/17	1715	g	se	1																																																																				
Preservation Used: <input type="checkbox"/> Ice, <input type="checkbox"/> 2% HCl, <input type="checkbox"/> 5% HNO3, <input type="checkbox"/> H2SO4, <input type="checkbox"/> Other: _____		Sample Disposal: (A fee may be assessed if samples are retained longer than 1 month)		Barcode:  280-95014 Chain of Custody		As 6020 Moisture PH 9045D Hg 7471A Metals 6010C EC/SAR PAHs 8270D SIM DRO, ORO w/ SGHEM ORO-TEPH 8016C DRO-TEPH 8016C GRO-TEPH 8016C BTEX 8260B Perform MS / MSD (Y / N) Filtered Sample (Y / N)		Sample Specific Notes: 122 PPM 165 PPM 175 PPM PPM PPM PPM PPM 21 PPM 1 PPM 56 PPM 192 PPM 27 PPM																																																																
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Comments Section if the lab is to dispose of the sample.		Special Instructions/QC Requirements & Comments:		Return to Client <input type="checkbox"/> Archive for _____ Months		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																																																																
Custody Seal No.: _____ Relinquished by: _____ Relinquished by: _____ Relinquished by: _____		Company: _____ Company: _____ Company: _____		Received by: _____ Received by: _____ Received by: _____		Date/Time: 3/20/17 Date/Time: 3/20/17 Date/Time: 3/20/17		Therm ID No.: _____ 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 Number: 1

Creator: Bieniulis, Dylan T

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: 280-95087-1

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

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.

Table of Contents

Cover Page 1

Table of Contents 2

Definitions 3

Case Narrative 4

Detection Summary 6

Method Summary 7

Sample Summary 8

Client Sample Results 9

Surrogate Summary 13

QC Sample Results 14

QC Association 16

Chronicle 18

Certification Summary 22

Chain of Custody 23

Receipt Checklists 25



Definitions/Glossary

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

TestAmerica Job ID: 280-95087-1

Qualifiers

GC VOA

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 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.

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: 280-95087-1

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: 280-95087-1

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: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-95087-1	RC4-SC-30	Solid	03/21/17 12:15	03/23/17 07:00
280-95087-2	RC4-SC-31	Solid	03/21/17 12:25	03/23/17 07:00
280-95087-3	RC4-SC-32	Solid	03/21/17 13:00	03/23/17 07:00
280-95087-4	RC4-SC-33	Solid	03/21/17 13:05	03/23/17 07:00
280-95087-5	RC4-SC-34	Solid	03/21/17 13:30	03/23/17 07:00
280-95087-6	RC4-SC-35	Solid	03/21/17 13:40	03/23/17 07:00
280-95107-1	RC4-SC-36	Solid	03/22/17 16:45	03/23/17 07:00
280-95107-2	RC4-SC-37	Solid	03/22/17 17:00	03/23/17 07:00

Client 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)

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
GRO (C6-C10)	ND		1.5	0.41	mg/Kg	☼	03/23/17 10:21	03/23/17 12:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	74	X	77 - 123				03/23/17 10:21	03/23/17 12:31	1

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		1.5	0.41	mg/Kg	☼	03/23/17 10:21	03/23/17 12:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	75	X	77 - 123				03/23/17 10:21	03/23/17 12:56	1

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		77	21	mg/Kg	☼	03/23/17 10:21	03/24/17 09:45	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	0	D X	77 - 123				03/23/17 10:21	03/24/17 09:45	50

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		1.4	0.37	mg/Kg	☼	03/23/17 10:21	03/23/17 13:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	69	X	77 - 123				03/23/17 10:21	03/23/17 13:47	1

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		1.4	0.39	mg/Kg	☼	03/23/17 10:21	03/23/17 14:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	70	X	77 - 123				03/23/17 10:21	03/23/17 14:13	1

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		1.5	0.41	mg/Kg	☼	03/23/17 10:21	03/23/17 14:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	67	X	77 - 123				03/23/17 10:21	03/23/17 14:38	1

TestAmerica Denver

Client 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)

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		1.5	0.40	mg/Kg	☼	03/23/17 13:10	03/23/17 15:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	64	X	77 - 123				03/23/17 13:10	03/23/17 15:04	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
GRO (C6-C10)	27		1.4	0.39	mg/Kg	☼	03/23/17 13:10	03/23/17 15:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	76	X	77 - 123				03/23/17 13:10	03/23/17 15:29	1

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		4.9	0.83	mg/Kg	☼	03/23/17 10:00	03/23/17 16:07	1
ORO (C20-C38)	ND		15	4.8	mg/Kg	☼	03/23/17 10:00	03/23/17 16:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	63		49 - 115				03/23/17 10:00	03/23/17 16:07	1

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		5.1	0.86	mg/Kg	☼	03/23/17 10:00	03/23/17 16:36	1
ORO (C20-C38)	26		15	4.9	mg/Kg	☼	03/23/17 10:00	03/23/17 16:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	78		49 - 115				03/23/17 10:00	03/23/17 16:36	1

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		100	17	mg/Kg	☼	03/23/17 10:00	03/23/17 22:48	10
ORO (C20-C38)	11000		300	97	mg/Kg	☼	03/23/17 10:00	03/23/17 22:48	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	3190	X D	49 - 115				03/23/17 10:00	03/23/17 22:48	10

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	4.4	0.75	mg/Kg	☼	03/23/17 10:00	03/23/17 18:29	1
ORO (C20-C38)	170		13	4.3	mg/Kg	☼	03/23/17 10:00	03/23/17 18:29	1

TestAmerica Denver

Client 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)

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	97		49 - 115				03/23/17 10:00	03/23/17 18:29	1
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		4.9	0.83	mg/Kg	☼	03/23/17 10:00	03/23/17 19:56	1
ORO (C20-C38)	200		15	4.8	mg/Kg	☼	03/23/17 10:00	03/23/17 19:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	99		49 - 115				03/23/17 10:00	03/23/17 19:56	1
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		4.9	0.82	mg/Kg	☼	03/23/17 10:00	03/23/17 20:25	1
ORO (C20-C38)	180		15	4.8	mg/Kg	☼	03/23/17 10:00	03/23/17 20:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	68		49 - 115				03/23/17 10:00	03/23/17 20:25	1
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	0.84	mg/Kg	☼	03/23/17 13:15	03/23/17 20:54	1
ORO (C20-C38)	100		15	4.9	mg/Kg	☼	03/23/17 13:15	03/23/17 20:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	89		49 - 115				03/23/17 13:15	03/23/17 20:54	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
DRO (C10-C28)	220		4.8	0.82	mg/Kg	☼	03/23/17 13:15	03/23/17 21:22	1
ORO (C20-C38)	110		14	4.7	mg/Kg	☼	03/23/17 13:15	03/23/17 21:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	80		49 - 115				03/23/17 13:15	03/23/17 21:22	1

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		0.1	0.1	%			03/23/17 09:51	1
Percent Solids	78.9		0.1	0.1	%			03/23/17 09:51	1

TestAmerica Denver

Client Sample Results

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

TestAmerica Job ID: 280-95087-1

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		0.1	0.1	%			03/23/17 09:51	1
Percent Solids	78.1		0.1	0.1	%			03/23/17 09:51	1

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		0.1	0.1	%			03/23/17 09:51	1
Percent Solids	76.5		0.1	0.1	%			03/23/17 09:51	1

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		0.1	0.1	%			03/23/17 09:51	1
Percent Solids	86.1		0.1	0.1	%			03/23/17 09:51	1

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		0.1	0.1	%			03/23/17 09:51	1
Percent Solids	81.8		0.1	0.1	%			03/23/17 09:51	1

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		0.1	0.1	%			03/23/17 09:51	1
Percent Solids	78.4		0.1	0.1	%			03/23/17 09:51	1

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		0.1	0.1	%			03/23/17 09:51	1
Percent Solids	80.0		0.1	0.1	%			03/23/17 09:51	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
Percent Moisture	18.2		0.1	0.1	%			03/23/17 09:51	1
Percent Solids	81.8		0.1	0.1	%			03/23/17 09:51	1

TestAmerica Denver

Surrogate Summary

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)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	TFT1 (77-123)
280-95087-1	RC4-SC-30	74 X
280-95087-2	RC4-SC-31	75 X
280-95087-3	RC4-SC-32	0 D X
280-95087-4	RC4-SC-33	69 X
280-95087-4 MS	RC4-SC-33	74 X
280-95087-4 MSD	RC4-SC-33	80
280-95087-5	RC4-SC-34	70 X
280-95087-6	RC4-SC-35	67 X
280-95107-1	RC4-SC-36	64 X
280-95107-2	RC4-SC-37	76 X
LCS 280-366569/2-A	Lab Control Sample	93
MB 280-366569/1-A	Method Blank	91

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)
280-95087-1	RC4-SC-30	63
280-95087-2	RC4-SC-31	78
280-95087-3	RC4-SC-32	3190 X D
280-95087-4	RC4-SC-33	97
280-95087-4 MS	RC4-SC-33	100
280-95087-4 MSD	RC4-SC-33	98
280-95087-5	RC4-SC-34	99
280-95087-6	RC4-SC-35	68
280-95107-1	RC4-SC-36	89
280-95107-2	RC4-SC-37	80
LCS 280-366556/2-A	Lab Control Sample	82
MB 280-366556/1-A	Method Blank	81

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	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	91		77 - 123				03/23/17 10:21	03/23/17 11:40	1

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	%Recovery	LCS Qualifier	Limits				
a,a,a-Trifluorotoluene	93		77 - 123				

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	%Recovery	MS Qualifier	Limits						
a,a,a-Trifluorotoluene	74	X	77 - 123						

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	%Recovery	MSD Qualifier	Limits								
a,a,a-Trifluorotoluene	80		77 - 123								

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-Terphenyl (Surr)	81		49 - 115	03/23/17 10:00	03/23/17 15:09	1

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				
o-Terphenyl (Surr)	82		49 - 115				

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	Limits
DRO (C10-C28)	260	F1	73.0	298		mg/Kg	✖	56	56 - 115
Surrogate	MS %Recovery	MS Qualifier	Limits						
o-Terphenyl (Surr)	100		49 - 115						

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								
o-Terphenyl (Surr)	98		49 - 115								

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-30

Date Collected: 03/21/17 12:15

Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-1

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	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	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-31

Date Collected: 03/21/17 12:25

Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-2

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	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	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-32

Date Collected: 03/21/17 13:00

Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-3

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	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	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-32

Lab Sample ID: 280-95087-3

Date Collected: 03/21/17 13:00

Matrix: Solid

Date Received: 03/23/17 07:00

Percent Solids: 76.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	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-33

Lab Sample ID: 280-95087-4

Date Collected: 03/21/17 13:05

Matrix: Solid

Date Received: 03/23/17 07:00

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			366567	03/23/17 09:51	IEU	TAL DEN

Client Sample ID: RC4-SC-33

Lab Sample ID: 280-95087-4

Date Collected: 03/21/17 13:05

Matrix: Solid

Date Received: 03/23/17 07:00

Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			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-34

Lab Sample ID: 280-95087-5

Date Collected: 03/21/17 13:30

Matrix: Solid

Date Received: 03/23/17 07:00

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			366567	03/23/17 09:51	IEU	TAL DEN

Client Sample ID: RC4-SC-34

Lab Sample ID: 280-95087-5

Date Collected: 03/21/17 13:30

Matrix: Solid

Date Received: 03/23/17 07:00

Percent Solids: 81.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			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-35

Date Collected: 03/21/17 13:40

Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-6

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			366567	03/23/17 09:51	IEU	TAL DEN

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	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-36

Date Collected: 03/22/17 16:45

Date Received: 03/23/17 07:00

Lab Sample ID: 280-95107-1

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	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	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-37

Date Collected: 03/22/17 17:00

Date Received: 03/23/17 07:00

Lab Sample ID: 280-95107-2

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	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	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-37

Lab Sample ID: 280-95107-2

Date Collected: 03/22/17 17:00

Matrix: Solid

Date Received: 03/23/17 07:00

Percent Solids: 81.8

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	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

Laboratory References:

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: 280-95087-1

Laboratory: TestAmerica Denver

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

Authority	Program	EPA Region	Certification ID	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	04-05-17
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	04-30-17
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	04-01-17
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

* Certification renewal pending - certification considered valid.

TestAmerica Denver

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 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?	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:

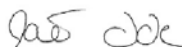
Stantec Consulting Corp.

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.

Table of Contents

Cover Page	1
Table of Contents	2
Definitions	3
Case Narrative	4
Detection Summary	6
Method Summary	7
Sample Summary	8
Client Sample Results	9
Surrogate Summary	13
QC Sample Results	14
QC Association	16
Chronicle	18
Certification Summary	22
Chain of Custody	23
Receipt Checklists	26



Definitions/Glossary

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

TestAmerica Job ID: 280-95087-1

Qualifiers

GC VOA

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 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.

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: 280-95087-1

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.

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 3/23/2017 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: 280-95087-1 (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: 280-95087-1

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: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95087-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-95087-1	RC4-SC-30	Solid	03/21/17 12:15	03/23/17 07:00
280-95087-2	RC4-SC-31	Solid	03/21/17 12:25	03/23/17 07:00
280-95087-3	RC4-SC-32	Solid	03/21/17 13:00	03/23/17 07:00
280-95087-4	RC4-SC-33	Solid	03/21/17 13:05	03/23/17 07:00
280-95087-5	RC4-SC-34	Solid	03/21/17 13:30	03/23/17 07:00
280-95087-6	RC4-SC-35	Solid	03/21/17 13:40	03/23/17 07:00
280-95107-1	RC4-SC-36	Solid	03/22/17 16:45	03/23/17 07:00
280-95107-2	RC4-SC-37	Solid	03/22/17 17:00	03/23/17 07:00

Client 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)

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
GRO (C6-C10)	ND		1.5	0.41	mg/Kg	☼	03/23/17 10:21	03/23/17 12:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	74	X	77 - 123				03/23/17 10:21	03/23/17 12:31	1

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		1.5	0.41	mg/Kg	☼	03/23/17 10:21	03/23/17 12:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	75	X	77 - 123				03/23/17 10:21	03/23/17 12:56	1

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		77	21	mg/Kg	☼	03/23/17 10:21	03/24/17 09:45	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	0	D X	77 - 123				03/23/17 10:21	03/24/17 09:45	50

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		1.4	0.37	mg/Kg	☼	03/23/17 10:21	03/23/17 13:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	69	X	77 - 123				03/23/17 10:21	03/23/17 13:47	1

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		1.4	0.39	mg/Kg	☼	03/23/17 10:21	03/23/17 14:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	70	X	77 - 123				03/23/17 10:21	03/23/17 14:13	1

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		1.5	0.41	mg/Kg	☼	03/23/17 10:21	03/23/17 14:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	67	X	77 - 123				03/23/17 10:21	03/23/17 14:38	1

TestAmerica Denver

Client 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)

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		1.5	0.40	mg/Kg	☼	03/23/17 13:10	03/23/17 15:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	64	X	77 - 123				03/23/17 13:10	03/23/17 15:04	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
GRO (C6-C10)	27		1.4	0.39	mg/Kg	☼	03/23/17 13:10	03/23/17 15:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	76	X	77 - 123				03/23/17 13:10	03/23/17 15:29	1

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		4.9	0.83	mg/Kg	☼	03/23/17 10:00	03/23/17 16:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	63		49 - 115				03/23/17 10:00	03/23/17 16:07	1

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		5.1	0.86	mg/Kg	☼	03/23/17 10:00	03/23/17 16:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	78		49 - 115				03/23/17 10:00	03/23/17 16:36	1

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		100	17	mg/Kg	☼	03/23/17 10:00	03/23/17 22:48	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	3190	X D	49 - 115				03/23/17 10:00	03/23/17 22:48	10

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	4.4	0.75	mg/Kg	☼	03/23/17 10:00	03/23/17 18:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	97		49 - 115				03/23/17 10:00	03/23/17 18:29	1

TestAmerica Denver

Client 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)

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		4.9	0.83	mg/Kg	☼	03/23/17 10:00	03/23/17 19:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	99		49 - 115				03/23/17 10:00	03/23/17 19:56	1

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		4.9	0.82	mg/Kg	☼	03/23/17 10:00	03/23/17 20:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	68		49 - 115				03/23/17 10:00	03/23/17 20:25	1

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	0.84	mg/Kg	☼	03/23/17 13:15	03/23/17 20:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	89		49 - 115				03/23/17 13:15	03/23/17 20:54	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
DRO (C10-C28)	220		4.8	0.82	mg/Kg	☼	03/23/17 13:15	03/23/17 21:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	80		49 - 115				03/23/17 13:15	03/23/17 21:22	1

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		0.1	0.1	%			03/23/17 09:51	1
Percent Solids	78.9		0.1	0.1	%			03/23/17 09:51	1

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		0.1	0.1	%			03/23/17 09:51	1
Percent Solids	78.1		0.1	0.1	%			03/23/17 09:51	1

TestAmerica Denver

Client Sample Results

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

TestAmerica Job ID: 280-95087-1

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		0.1	0.1	%			03/23/17 09:51	1
Percent Solids	76.5		0.1	0.1	%			03/23/17 09:51	1

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		0.1	0.1	%			03/23/17 09:51	1
Percent Solids	86.1		0.1	0.1	%			03/23/17 09:51	1

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		0.1	0.1	%			03/23/17 09:51	1
Percent Solids	81.8		0.1	0.1	%			03/23/17 09:51	1

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		0.1	0.1	%			03/23/17 09:51	1
Percent Solids	78.4		0.1	0.1	%			03/23/17 09:51	1

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		0.1	0.1	%			03/23/17 09:51	1
Percent Solids	80.0		0.1	0.1	%			03/23/17 09:51	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
Percent Moisture	18.2		0.1	0.1	%			03/23/17 09:51	1
Percent Solids	81.8		0.1	0.1	%			03/23/17 09:51	1

TestAmerica Denver

Surrogate Summary

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)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	TFT1 (77-123)
280-95087-1	RC4-SC-30	74 X
280-95087-2	RC4-SC-31	75 X
280-95087-3	RC4-SC-32	0 D X
280-95087-4	RC4-SC-33	69 X
280-95087-4 MS	RC4-SC-33	74 X
280-95087-4 MSD	RC4-SC-33	80
280-95087-5	RC4-SC-34	70 X
280-95087-6	RC4-SC-35	67 X
280-95107-1	RC4-SC-36	64 X
280-95107-2	RC4-SC-37	76 X
LCS 280-366569/2-A	Lab Control Sample	93
MB 280-366569/1-A	Method Blank	91

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)
280-95087-1	RC4-SC-30	63
280-95087-2	RC4-SC-31	78
280-95087-3	RC4-SC-32	3190 X D
280-95087-4	RC4-SC-33	97
280-95087-4 MS	RC4-SC-33	100
280-95087-4 MSD	RC4-SC-33	98
280-95087-5	RC4-SC-34	99
280-95087-6	RC4-SC-35	68
280-95107-1	RC4-SC-36	89
280-95107-2	RC4-SC-37	80
LCS 280-366556/2-A	Lab Control Sample	82
MB 280-366556/1-A	Method Blank	81

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	91		77 - 123				03/23/17 10:21	03/23/17 11:40	1

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	%Rec. Limits
GRO (C6-C10)	5.50	6.76		mg/Kg		123	85 - 153
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
a,a,a-Trifluorotoluene	93		77 - 123				

Lab Sample ID: 280-950874 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	%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	74	X	77 - 123						

Lab Sample ID: 280-950874 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	%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	80		77 - 123								

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 (Surr)	81		49 - 115				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: 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-Terphenyl (Surr)	82		49 - 115				

Lab Sample ID: 280-950874 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-Terphenyl (Surr)	100		49 - 115								

Lab Sample ID: 280-950874 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-Terphenyl (Surr)	98		49 - 115								

Method: Moisture - Percent Moisture

Lab Sample ID: 280-950876 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-30

Date Collected: 03/21/17 12:15

Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-1

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	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	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-31

Date Collected: 03/21/17 12:25

Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-2

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	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	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-32

Date Collected: 03/21/17 13:00

Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-3

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	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	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-32

Lab Sample ID: 280-95087-3

Date Collected: 03/21/17 13:00

Matrix: Solid

Date Received: 03/23/17 07:00

Percent Solids: 76.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	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-33

Lab Sample ID: 280-95087-4

Date Collected: 03/21/17 13:05

Matrix: Solid

Date Received: 03/23/17 07:00

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			366567	03/23/17 09:51	IEU	TAL DEN

Client Sample ID: RC4-SC-33

Lab Sample ID: 280-95087-4

Date Collected: 03/21/17 13:05

Matrix: Solid

Date Received: 03/23/17 07:00

Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			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-34

Lab Sample ID: 280-95087-5

Date Collected: 03/21/17 13:30

Matrix: Solid

Date Received: 03/23/17 07:00

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			366567	03/23/17 09:51	IEU	TAL DEN

Client Sample ID: RC4-SC-34

Lab Sample ID: 280-95087-5

Date Collected: 03/21/17 13:30

Matrix: Solid

Date Received: 03/23/17 07:00

Percent Solids: 81.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			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-35

Date Collected: 03/21/17 13:40

Date Received: 03/23/17 07:00

Lab Sample ID: 280-95087-6

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			366567	03/23/17 09:51	IEU	TAL DEN

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	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-36

Date Collected: 03/22/17 16:45

Date Received: 03/23/17 07:00

Lab Sample ID: 280-95107-1

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	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	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-37

Date Collected: 03/22/17 17:00

Date Received: 03/23/17 07:00

Lab Sample ID: 280-95107-2

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	Moisture		1			366567	03/23/17 09:51	IEU	TAL DEN

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	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-37

Lab Sample ID: 280-95107-2

Date Collected: 03/22/17 17:00

Matrix: Solid

Date Received: 03/23/17 07:00

Percent Solids: 81.8

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	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

Laboratory References:

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: 280-95087-1

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 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		Analysis Turnaround Time		Lab Contact: Jamie Ide		Carrier: Courier		of COCs	
2000 South Colorado Blvd., Suite 2-300		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		DRO-TEPH 8015C		Moisture		Sampler:	
Denver, CO 80222		TAT if different from Below		DRO-TEPH 8015C		pH 9045D		For Lab Use Only:	
(303) 756-4058 Phone		ASAP		GRO-TEPH 8015C		Hg 7471A		Walk-in Client:	
(303) 756-4828 FAX		2 weeks		BTEX 8260B		Metals 6010C		Lab Sampling:	
Project Name: CPL-Rangely C-4		1 week		PAHs 8270D SIM		EC/SAR		Job / SDG No.:	
Site: CPL Rangely		2 days		DRO, ORO w/ SGHEM					
P O # 203720102		1 day		Filtered Sample (Y/N)					
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sample Specific Notes:		
RC4-SC-30	3/21/17	12:15	g	SP	1				2 ppm
RC4-SC-31	3/21/17	12:35	g	SC	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	SC	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	SC	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:		Corr'd:		Therm ID No.:	
Relinquished by: Kyle Lawrence		Company: CTEH		Received by: Jon Madren		Company: State		Date/Time: 3/22/17 @ 13:15	
Relinquished by: [Signature]		Company:		Received by: [Signature]		Company: TAD		Date/Time: 3-23-17 07:00	
Relinquished by:		Company:		Received in Laboratory by:		Company:		Date/Time:	

TestAmerica Denver
4955 Yarrow Street

Arvada, CO 80002-4517
phone 303.736.0100 fax 303.431.7171

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

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

Project Manager: Bethany Lucente


Tel/Fax: (303) 250-4718

Site Contact: Bethany Lucente

Date: 3/22/17

COC No:

1 of 1 COCs

Client Contact		Project Manager: Bethany Lucente		Site Contact: Bethany Lucente		Carrier: Courier		Sampler: Mike Staehamer					
2000 South Colorado Blvd., Suite 2-300 Denver, CO 80222		Analysis Turnaround Time <input checked="" type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below ASAP 2 weeks 1 week 2 days 1 day		Lab Contact: Jamie Ide		Date: 3/22/17		For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.:					
(303) 758-4058 Phone (303) 758-4828 FAX Project Name: CPL-Rangely C-4 Site: CPL Rangely P O # 203720102		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix		# of Cont.		Sample Specific Notes:	
RC4-SC-36		3/22/17		1645		C		S		2		145 beam	
RC4-SC-37		3/22/17		1700		C		S		2		down stream	
 280-95107 Chain of Custody												As 6020	
												Chill/CVI 7196A	
												Moisture	
												pH 9045D	
												Hg 7471A	
												Metals 6010C	
												EC/SAR	
												PAHs 8270D SIM	
												DRO, ORO w/ SGHEM	
												ORO-TEPH 8015C	
DRO-TEPH 8015C													
DRO-TEPH 8015C													
BTEX 8260B													
Perform MS / MSD (Y / N)													
Filtered Sample (Y / N)													
<p>Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other</p> <p>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.</p> <p><input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown</p> <p>Special Instructions/QC Requirements & Comments: Metals include Ba, B, Cd, Cr, Cu, Pb, Ni, Se, Ag, Zn</p> <p>Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Relinquished by: Mike Staehamer Relinquished by: Mike Staehamer Relinquished by:</p> <p>Cooler Temp. (C): Obs'd: _____ Cor'd: _____ Therm ID No.: _____ Date/Time: 3/22/17 0700 Company: Staehamer Date/Time: 3/23/17 0700 Company: Staehamer Date/Time: _____ Company: _____</p> <p>4.5 to 0.0 IL#7 transferred by JT 3/23/17</p>													

Phone (303) 736-0100 Fax (303) 431-7171

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 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?	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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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.

Table of Contents

Cover Page 1

Table of Contents 2

Definitions 3

Case Narrative 4

Detection Summary 5

Method Summary 6

Sample Summary 7

Client Sample Results 8

QC Sample Results 9

QC Association 12

Chronicle 14

Certification Summary 15

Chain of Custody 17

Receipt Checklists 21



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-36

Lab Sample ID: 280-95107-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
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-37

Lab Sample ID: 280-95107-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
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

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

TestAmerica Job ID: 280-95087-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-95107-1	RC4-SC-36	Solid	03/22/17 16:45	03/23/17 07:00
280-95107-2	RC4-SC-37	Solid	03/22/17 17:00	03/23/17 07:00

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		10	5.0	mg/Kg		03/30/17 10:19	03/31/17 11:14	1

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	245		mg/Kg		98	80 - 120

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		303	302		mg/Kg	✱	100	73 - 124

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, Kjeldahl	ND		50	12	mg/Kg		04/05/17 18:12	04/05/17 22:37	1

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, Kjeldahl	300	285		mg/Kg		95	90 - 110

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, Kjeldahl	470	F1	180	526	F1	mg/Kg	✱	31	90 - 110

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, Kjeldahl	470	F1	183	602	F1	mg/Kg	✱	72	90 - 110	13	30

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	0.35	mg/Kg			03/30/17 21:30	1

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	48.9	49.3		mg/Kg		101	90 - 110

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	43	F1	47.6	75.4	F1	mg/Kg	☼	68	90 - 110

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	43	F1	47.9	76.3	F1	mg/Kg	☼	69	90 - 110	1	10

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		1.0	0.030	mg/Kg			04/06/17 08:06	1

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	2.1	mg/Kg			04/06/17 10:05	1

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		0.15	0.042	mg/Kg			03/29/17 20:03	1

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	0.498	0.531		mg/Kg		107	87 - 107

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	0.491	0.526		mg/Kg		107	87 - 107	1	10

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		0.626	0.645		mg/Kg	✱	103	70 - 130

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		0.617	0.642		mg/Kg	✱	104	70 - 130	0	10

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		1.0	1.0	mg/Kg			04/06/17 08:20	1

TestAmerica Denver

QC Association Summary

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

TestAmerica Job ID: 280-95087-2

General Chemistry

Leach Batch: 367129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95107-1	RC4-SC-36	Soluble	Solid	DI Leach	
280-95107-2	RC4-SC-37	Soluble	Solid	DI Leach	
MB 280-367129/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 280-367129/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
280-95107-1 MS	RC4-SC-36	Soluble	Solid	DI Leach	
280-95107-1 MSD	RC4-SC-36	Soluble	Solid	DI Leach	

Leach Batch: 367328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95107-1	RC4-SC-36	Soluble	Solid	DI Leach	
280-95107-2	RC4-SC-37	Soluble	Solid	DI Leach	
MB 280-367328/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 280-367328/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 280-367328/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
280-95107-1 MS	RC4-SC-36	Soluble	Solid	DI Leach	
280-95107-1 MSD	RC4-SC-36	Soluble	Solid	DI Leach	

Analysis Batch: 367336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95107-1	RC4-SC-36	Soluble	Solid	SM 4500 NO2 B	367328
280-95107-2	RC4-SC-37	Soluble	Solid	SM 4500 NO2 B	367328
MB 280-367328/1-A	Method Blank	Soluble	Solid	SM 4500 NO2 B	367328
LCS 280-367328/2-A	Lab Control Sample	Soluble	Solid	SM 4500 NO2 B	367328
LCSD 280-367328/3-A	Lab Control Sample Dup	Soluble	Solid	SM 4500 NO2 B	367328
280-95107-1 MS	RC4-SC-36	Soluble	Solid	SM 4500 NO2 B	367328
280-95107-1 MSD	RC4-SC-36	Soluble	Solid	SM 4500 NO2 B	367328

Analysis Batch: 367500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95107-1	RC4-SC-36	Soluble	Solid	353.2	367129
280-95107-2	RC4-SC-37	Soluble	Solid	353.2	367129
MB 280-367129/1-A	Method Blank	Soluble	Solid	353.2	367129
LCS 280-367129/2-A	Lab Control Sample	Soluble	Solid	353.2	367129
280-95107-1 MS	RC4-SC-36	Soluble	Solid	353.2	367129
280-95107-1 MSD	RC4-SC-36	Soluble	Solid	353.2	367129

Prep Batch: 368208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95107-1	RC4-SC-36	Total/NA	Solid	351.2	
280-95107-2	RC4-SC-37	Total/NA	Solid	351.2	
MB 280-368208/2-A	Method Blank	Total/NA	Solid	351.2	
LCS 280-368208/1-A	Lab Control Sample	Total/NA	Solid	351.2	
280-95107-2 MS	RC4-SC-37	Total/NA	Solid	351.2	
280-95107-2 MSD	RC4-SC-37	Total/NA	Solid	351.2	

Analysis Batch: 368237

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95107-1	RC4-SC-36	Total/NA	Solid	351.2	368208
280-95107-2	RC4-SC-37	Total/NA	Solid	351.2	368208
MB 280-368208/2-A	Method Blank	Total/NA	Solid	351.2	368208
LCS 280-368208/1-A	Lab Control Sample	Total/NA	Solid	351.2	368208

TestAmerica Denver

QC Association Summary

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

TestAmerica Job ID: 280-95087-2

General Chemistry (Continued)

Analysis Batch: 368237 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95107-2 MS	RC4-SC-37	Total/NA	Solid	351.2	368208
280-95107-2 MSD	RC4-SC-37	Total/NA	Solid	351.2	368208

Analysis Batch: 368260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95107-1	RC4-SC-36	Total/NA	Solid	Nitrate by calc	
280-95107-2	RC4-SC-37	Total/NA	Solid	Nitrate by calc	
MB 280-368260/1	Method Blank	Total/NA	Solid	Nitrate by calc	

Analysis Batch: 368270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95107-1	RC4-SC-36	Total/NA	Solid	Total Nitrogen	
280-95107-2	RC4-SC-37	Total/NA	Solid	Total Nitrogen	
MB 280-368270/1	Method Blank	Total/NA	Solid	Total Nitrogen	

Analysis Batch: 368307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95107-1	RC4-SC-36	Total/NA	Solid	Nitrogen,Org	
280-95107-2	RC4-SC-37	Total/NA	Solid	Nitrogen,Org	
MB 280-368307/1	Method Blank	Total/NA	Solid	Nitrogen,Org	

Prep Batch: 418413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95107-1	RC4-SC-36	Total/NA	Solid	Distill/Ammonia	
280-95107-2	RC4-SC-37	Total/NA	Solid	Distill/Ammonia	
MB 490-418413/1-A	Method Blank	Total/NA	Solid	Distill/Ammonia	
LCS 490-418413/2-A	Lab Control Sample	Total/NA	Solid	Distill/Ammonia	
280-95107-2 MS	RC4-SC-37	Total/NA	Solid	Distill/Ammonia	

Analysis Batch: 418834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95107-1	RC4-SC-36	Total/NA	Solid	350.1	418413
280-95107-2	RC4-SC-37	Total/NA	Solid	350.1	418413
MB 490-418413/1-A	Method Blank	Total/NA	Solid	350.1	418413
LCS 490-418413/2-A	Lab Control Sample	Total/NA	Solid	350.1	418413
280-95107-2 MS	RC4-SC-37	Total/NA	Solid	350.1	418413

Lab Chronicle

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

TestAmerica Job ID: 280-95087-2

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	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-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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	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

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: 280-95087-2

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

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	09-01-17
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: 280-95087-2

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

Arvada, CO 80002-4517
phone 303.736.0100 fax 303.431.7171

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Bethany Lucente		Site Contact: Bethany Lucente		Date: 3/22/17	
Tel/Fax: (303) 250-4718		Analysis Turnaround Time		Lab Contact: Jamie Ide		Carrier: Courier	
TAT if different from Below		Sample Date		Sample Time		Sample Type	
CALENDAR DAYS <input type="checkbox"/> WORKING DAYS <input checked="" type="checkbox"/>		Sample Date		Sample Time		Sample Type	
ASAP		Sample Date		Sample Time		Sample Type	
2 weeks		Sample Date		Sample Time		Sample Type	
1 week		Sample Date		Sample Time		Sample Type	
2 days		Sample Date		Sample Time		Sample Type	
1 day		Sample Date		Sample Time		Sample Type	
RC4-SC-36	3/22/17	1645	C	S	2		
RC4-SC-37	3/22/17	1700	C	S	2		
<div style="text-align: center;">  <p>280-95107 Chain of Custody</p> </div>							
<p>Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other</p> <p>Possible Hazard Identification:</p> <p>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.</p> <p><input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown</p> <p>Special Instructions/QC Requirements & Comments:</p> <p>Metals include Ba, B, Cd, Cr, Cu, Pb, Ni, Se, Ag, Zn</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>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>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>	
<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>	
<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>	
<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>	
<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>	
<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>	
<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>	
<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>	
<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>	
<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>	
<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>	
<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>	
<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>	
<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>	
<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>	
<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>	
<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>	
<p>Sample Specific Notes:</p> <p>u.s. beam</p> <p>clean stream</p>		<p>Sample Specific Notes:</p> <p>u.s. beam</p>					

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: _____		Sampler: _____ Lab PM: Ide, Jamie N Phone: _____ E-Mail: jamie.ide@testamericainc.com Accreditations Required (See note): _____		GOC No: 280-392237-1 Page: 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 - Ice 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 Hgt: 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 3/22/17		Sample Time 16:45 Mountain 17:00 Mountain	
Sample Type (C=comp, G=grab) _____ Preservation Code: _____		Field Filtered Sample (Yes or No) _____ Perform MS/MSD (Yes or No) _____ 350.1/Disill. 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 out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.					
Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) _____ 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: _____ Date: _____ Relinquished by: <i>Patricia</i> Date/Time: 3/28/17 Company: TAD Relinquished by: _____ Date/Time: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____ Custody Seals Intact: _____ Custody Seal No.: _____ 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 #

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002

Chain of Custody Record

Loc: 280
95107



TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

[illegible]

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-95087-2

Login Number: 95107

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?	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: 280-95087-2

Login Number: 95107

List Number: 2

Creator: Ngo, Phiet

List Source: TestAmerica Nashville

List Creation: 03/29/17 12:27 PM

Question	Answer	Comment
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: 280-95393-1

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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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.

Table of Contents

Cover Page 1

Table of Contents 2

Definitions 3

Case Narrative 4

Detection Summary 6

Method Summary 9

Sample Summary 10

Client Sample Results 11

Surrogate Summary 21

QC Sample Results 23

QC Association 26

Chronicle 30

Certification Summary 38

Chain of Custody 39

Receipt Checklists 44



Definitions/Glossary

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

TestAmerica Job ID: 280-95393-1

Qualifiers

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
*	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 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: 280-95393-1

Job ID: 280-95393-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Stantec Consulting Corp.
Project: Stantec CVX - Rangely, CO
Report Number: 280-95393-1

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 3/31/2017 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: 280-95393-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

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: 280-95393-1

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: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-95393-1	RC4-SC-38	Solid	03/30/17 10:05	03/31/17 16:55
280-95393-2	RC4-SC-39	Solid	03/30/17 10:10	03/31/17 16:55
280-95393-3	RC4-SC-40	Solid	03/30/17 10:15	03/31/17 16:55
280-95393-4	RC4-SC-41	Solid	03/30/17 10:20	03/31/17 16:55
280-95393-5	RC4-SC-42	Solid	03/30/17 10:25	03/31/17 16:55
280-95393-6	RC4-SC-43	Solid	03/30/17 10:30	03/31/17 16:55
280-95393-7	RC4-SC-44	Solid	03/30/17 10:35	03/31/17 16:55
280-95393-8	RC4-SC-45	Solid	03/30/17 10:40	03/31/17 16:55
280-95393-9	RC4-SC-46	Solid	03/30/17 10:45	03/31/17 16:55
280-95393-10	RC4-SC-47	Solid	03/30/17 10:50	03/31/17 16:55
280-95393-11	RC4-SC-48	Solid	03/30/17 10:55	03/31/17 16:55
280-95393-12	RC4-SC-49	Solid	03/30/17 11:00	03/31/17 16:55
280-95393-13	RC4-SC-50	Solid	03/30/17 11:05	03/31/17 16:55
280-95393-14	RC4-SC-51	Solid	03/30/17 11:10	03/31/17 16:55
280-95393-15	RC4-SC-52	Solid	03/30/17 11:15	03/31/17 16:55
280-95393-16	RC4-SC-53	Solid	03/30/17 11:20	03/31/17 16:55
280-95393-17	RC4-SC-54	Solid	03/30/17 11:25	03/31/17 16:55
280-95393-18	RC4-SC-55	Solid	03/30/17 11:30	03/31/17 16:55
280-95393-19	RC4-SC-56	Solid	03/30/17 11:35	03/31/17 16:55
280-95393-20	RC4-SC-57	Solid	03/30/17 11:40	03/31/17 16:55

Client 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)

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		1.4	0.37	mg/Kg	☼	04/03/17 10:59	04/05/17 14:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	78		77 - 123				04/03/17 10:59	04/05/17 14:00	1

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		1.5	0.41	mg/Kg	☼	04/03/17 10:59	04/05/17 14:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	80		77 - 123				04/03/17 10:59	04/05/17 14:25	1

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	7.8	mg/Kg	☼	04/03/17 10:59	04/05/17 14:50	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	312	X D	77 - 123				04/03/17 10:59	04/05/17 14:50	20

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		74	20	mg/Kg	☼	04/03/17 10:59	04/05/17 15:15	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	1926	X D	77 - 123				04/03/17 10:59	04/05/17 15:15	50

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		14	3.7	mg/Kg	☼	04/03/17 10:59	04/05/17 15:40	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	345	X D	77 - 123				04/03/17 10:59	04/05/17 15:40	10

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		1.5	0.39	mg/Kg	☼	04/03/17 10:59	04/05/17 16:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	79		77 - 123				04/03/17 10:59	04/05/17 16:05	1

TestAmerica Denver

Client 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)

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	1.8	mg/Kg	☼	04/03/17 10:59	04/05/17 16:29	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	124	X D	77 - 123				04/03/17 10:59	04/05/17 16:29	5

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		7.0	1.9	mg/Kg	☼	04/03/17 10:59	04/05/17 16:54	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	83	D	77 - 123				04/03/17 10:59	04/05/17 16:54	5

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		3.0	0.80	mg/Kg	☼	04/03/17 10:59	04/05/17 17:19	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	80		77 - 123				04/03/17 10:59	04/05/17 17:19	2

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	18	mg/Kg	☼	04/03/17 10:59	04/05/17 18:09	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	729	X D	77 - 123				04/03/17 10:59	04/05/17 18:09	50

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		3.0	0.81	mg/Kg	☼	04/03/17 10:59	04/05/17 18:34	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	81		77 - 123				04/03/17 10:59	04/05/17 18:34	2

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		7.4	2.0	mg/Kg	☼	04/03/17 10:59	04/05/17 18:59	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	129	X D	77 - 123				04/03/17 10:59	04/05/17 18:59	5

TestAmerica Denver

Client 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)

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	7.1	mg/Kg	☼	04/03/17 10:59	04/05/17 19:23	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	402	X D	77 - 123				04/03/17 10:59	04/05/17 19:23	20

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	7.5	mg/Kg	☼	04/03/17 10:59	04/05/17 19:48	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	456	X D	77 - 123				04/03/17 10:59	04/05/17 19:48	20

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-C10)	ND		1.4	0.39	mg/Kg	☼	04/03/17 10:59	04/05/17 20:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	62	X	77 - 123				04/03/17 10:59	04/05/17 20:13	1

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		7.3	2.0	mg/Kg	☼	04/03/17 10:59	04/05/17 20:38	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	102	D	77 - 123				04/03/17 10:59	04/05/17 20:38	5

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		1.4	0.37	mg/Kg	☼	04/03/17 10:59	04/05/17 21:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	74	X	77 - 123				04/03/17 10:59	04/05/17 21:03	1

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	1.9	mg/Kg	☼	04/03/17 10:59	04/05/17 21:28	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	119	D	77 - 123				04/03/17 10:59	04/05/17 21:28	5

TestAmerica Denver

Client 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)

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		1.4	0.39	mg/Kg	☼	04/04/17 13:28	04/06/17 14:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	78		77 - 123				04/04/17 13:28	04/06/17 14:06	1

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		15	4.1	mg/Kg	☼	04/04/17 13:28	04/06/17 00:48	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	174	D X	77 - 123				04/04/17 13:28	04/06/17 00:48	10

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	*	4.9	0.82	mg/Kg	☼	04/03/17 09:29	04/06/17 04:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	44	X	49 - 115				04/03/17 09:29	04/06/17 04:31	1

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	*	9.3	1.6	mg/Kg	☼	04/03/17 09:29	04/06/17 22:52	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	31	X D	49 - 115				04/03/17 09:29	04/06/17 22:52	2

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	*	49	8.3	mg/Kg	☼	04/03/17 09:29	04/06/17 23:16	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	920	X D	49 - 115				04/03/17 09:29	04/06/17 23:16	10

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		240	40	mg/Kg	☼	04/06/17 13:00	04/11/17 21:05	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	4444	X D	49 - 115				04/06/17 13:00	04/11/17 21:05	10

TestAmerica Denver

Client 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)

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	1.6	mg/Kg	☼	04/03/17 09:29	04/06/17 23:41	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	69	D	49 - 115				04/03/17 09:29	04/06/17 23:41	2

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	*	9.4	1.6	mg/Kg	☼	04/03/17 09:29	04/07/17 00:05	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	47	X D	49 - 115				04/03/17 09:29	04/07/17 00:05	2

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	*	43	7.3	mg/Kg	☼	04/03/17 09:29	04/07/17 00:30	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	28	X D	49 - 115				04/03/17 09:29	04/07/17 00:30	10

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	3.7	mg/Kg	☼	04/03/17 09:29	04/07/17 00:54	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	45	X D	49 - 115				04/03/17 09:29	04/07/17 00:54	5

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	*	24	4.1	mg/Kg	☼	04/03/17 09:29	04/07/17 01:19	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	37	X D	49 - 115				04/03/17 09:29	04/07/17 01:19	5

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	*	44	7.4	mg/Kg	☼	04/03/17 09:29	04/07/17 01:44	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	699	X D	49 - 115				04/03/17 09:29	04/07/17 01:44	10

TestAmerica Denver

Client 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)

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	*	24	4.1	mg/Kg	☼	04/03/17 09:29	04/07/17 02:08	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	36	X D	49 - 115				04/03/17 09:29	04/07/17 02:08	5

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	*	48	8.1	mg/Kg	☼	04/03/17 09:29	04/07/17 02:33	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	61	D	49 - 115				04/03/17 09:29	04/07/17 02:33	10

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	14	mg/Kg	☼	04/04/17 10:23	04/10/17 13:23	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	1710	X	49 - 115				04/04/17 10:23	04/10/17 13:23	2

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	15	mg/Kg	☼	04/04/17 10:23	04/10/17 14:37	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	37	X	49 - 115				04/04/17 10:23	04/10/17 14:37	2

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		4.3	0.74	mg/Kg	☼	04/04/17 10:23	04/07/17 16:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	121	X	49 - 115				04/04/17 10:23	04/07/17 16:37	1

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	4.3	mg/Kg	☼	04/04/17 10:23	04/10/17 15:01	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	23	X D	49 - 115				04/04/17 10:23	04/10/17 15:01	5

TestAmerica Denver

Client 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)

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		44	7.5	mg/Kg	☼	04/04/17 10:23	04/10/17 15:26	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	22	X D	49 - 115				04/04/17 10:23	04/10/17 15:26	10

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	37	mg/Kg	☼	04/04/17 10:23	04/10/17 15:50	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	4387	D X	49 - 115				04/04/17 10:23	04/10/17 15:50	5

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		4.9	0.83	mg/Kg	☼	04/04/17 10:23	04/07/17 18:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	62		49 - 115				04/04/17 10:23	04/07/17 18:41	1

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		9.7	1.6	mg/Kg	☼	04/04/17 10:23	04/10/17 16:15	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	35	X	49 - 115				04/04/17 10:23	04/10/17 16:15	2

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		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	82.6		0.1	0.1	%			04/01/17 16:46	1

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		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	79.3		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: 280-95393-1

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		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	79.3		0.1	0.1	%			04/01/17 16:46	1

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		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	82.4		0.1	0.1	%			04/01/17 16:46	1

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		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	83.7		0.1	0.1	%			04/01/17 16:46	1

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		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	84.2		0.1	0.1	%			04/01/17 16:46	1

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		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	90.4		0.1	0.1	%			04/01/17 16:46	1

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		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	82.4		0.1	0.1	%			04/01/17 16:46	1

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		0.1	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-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		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	89.3		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: 280-95393-1

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		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	81.1		0.1	0.1	%			04/01/17 16:46	1

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		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	82.5		0.1	0.1	%			04/01/17 16:46	1

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		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	89.7		0.1	0.1	%			04/01/17 16:46	1

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		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	83.9		0.1	0.1	%			04/01/17 16:46	1

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		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	84.7		0.1	0.1	%			04/01/17 16:46	1

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		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	79.5		0.1	0.1	%			04/01/17 16:46	1

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		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	88.8		0.1	0.1	%			04/01/17 16:46	1

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		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	84.6		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: 280-95393-1

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		0.1	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-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		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	82.1		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: 280-95393-1

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	%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	%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	%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	%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	%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	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	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	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	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: 280-95393-1

GC VOA

Prep Batch: 367815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-1	RC4-SC-38	Total/NA	Solid	5035	
280-95393-2	RC4-SC-39	Total/NA	Solid	5035	
280-95393-3	RC4-SC-40	Total/NA	Solid	5035	
280-95393-4	RC4-SC-41	Total/NA	Solid	5035	
280-95393-5	RC4-SC-42	Total/NA	Solid	5035	
280-95393-6	RC4-SC-43	Total/NA	Solid	5035	
280-95393-7	RC4-SC-44	Total/NA	Solid	5035	
280-95393-8	RC4-SC-45	Total/NA	Solid	5035	
280-95393-9	RC4-SC-46	Total/NA	Solid	5035	
280-95393-10	RC4-SC-47	Total/NA	Solid	5035	
280-95393-11	RC4-SC-48	Total/NA	Solid	5035	
280-95393-12	RC4-SC-49	Total/NA	Solid	5035	
280-95393-13	RC4-SC-50	Total/NA	Solid	5035	
280-95393-14	RC4-SC-51	Total/NA	Solid	5035	
280-95393-15	RC4-SC-52	Total/NA	Solid	5035	
280-95393-16	RC4-SC-53	Total/NA	Solid	5035	
280-95393-17	RC4-SC-54	Total/NA	Solid	5035	
280-95393-18	RC4-SC-55	Total/NA	Solid	5035	
MB 280-367815/1-A	Method Blank	Total/NA	Solid	5035	
LCS 280-367815/2-A	Lab Control Sample	Total/NA	Solid	5035	

Prep Batch: 368014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-19	RC4-SC-56	Total/NA	Solid	5035	
280-95393-20	RC4-SC-57	Total/NA	Solid	5035	
MB 280-368014/1-A	Method Blank	Total/NA	Solid	5035	
LCS 280-368014/2-A	Lab Control Sample	Total/NA	Solid	5035	

Analysis Batch: 368173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-1	RC4-SC-38	Total/NA	Solid	8015C	367815
280-95393-2	RC4-SC-39	Total/NA	Solid	8015C	367815
280-95393-3	RC4-SC-40	Total/NA	Solid	8015C	367815
280-95393-4	RC4-SC-41	Total/NA	Solid	8015C	367815
280-95393-5	RC4-SC-42	Total/NA	Solid	8015C	367815
280-95393-6	RC4-SC-43	Total/NA	Solid	8015C	367815
280-95393-7	RC4-SC-44	Total/NA	Solid	8015C	367815
280-95393-8	RC4-SC-45	Total/NA	Solid	8015C	367815
280-95393-9	RC4-SC-46	Total/NA	Solid	8015C	367815
280-95393-10	RC4-SC-47	Total/NA	Solid	8015C	367815
280-95393-11	RC4-SC-48	Total/NA	Solid	8015C	367815
280-95393-12	RC4-SC-49	Total/NA	Solid	8015C	367815
280-95393-13	RC4-SC-50	Total/NA	Solid	8015C	367815
280-95393-14	RC4-SC-51	Total/NA	Solid	8015C	367815
280-95393-15	RC4-SC-52	Total/NA	Solid	8015C	367815
280-95393-16	RC4-SC-53	Total/NA	Solid	8015C	367815
280-95393-17	RC4-SC-54	Total/NA	Solid	8015C	367815
280-95393-18	RC4-SC-55	Total/NA	Solid	8015C	367815
MB 280-367815/1-A	Method Blank	Total/NA	Solid	8015C	367815
LCS 280-367815/2-A	Lab Control Sample	Total/NA	Solid	8015C	367815

TestAmerica Denver

QC Association Summary

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

TestAmerica Job ID: 280-95393-1

GC VOA (Continued)

Analysis Batch: 368285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-20	RC4-SC-57	Total/NA	Solid	8015C	368014
MB 280-368014/1-A	Method Blank	Total/NA	Solid	8015C	368014
LCS 280-368014/2-A	Lab Control Sample	Total/NA	Solid	8015C	368014

Analysis Batch: 368351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-19	RC4-SC-56	Total/NA	Solid	8015C	368014

GC Semi VOA

Prep Batch: 367732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-1	RC4-SC-38	Total/NA	Solid	3546	
280-95393-2	RC4-SC-39	Total/NA	Solid	3546	
280-95393-3	RC4-SC-40	Total/NA	Solid	3546	
280-95393-5	RC4-SC-42	Total/NA	Solid	3546	
280-95393-6	RC4-SC-43	Total/NA	Solid	3546	
280-95393-7	RC4-SC-44	Total/NA	Solid	3546	
280-95393-8	RC4-SC-45	Total/NA	Solid	3546	
280-95393-9	RC4-SC-46	Total/NA	Solid	3546	
280-95393-10	RC4-SC-47	Total/NA	Solid	3546	
280-95393-11	RC4-SC-48	Total/NA	Solid	3546	
280-95393-12	RC4-SC-49	Total/NA	Solid	3546	
MB 280-367732/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-367732/2-A	Lab Control Sample	Total/NA	Solid	3546	

Prep Batch: 367936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-13	RC4-SC-50	Total/NA	Solid	3546	
280-95393-14	RC4-SC-51	Total/NA	Solid	3546	
280-95393-15	RC4-SC-52	Total/NA	Solid	3546	
280-95393-16	RC4-SC-53	Total/NA	Solid	3546	
280-95393-17	RC4-SC-54	Total/NA	Solid	3546	
280-95393-18	RC4-SC-55	Total/NA	Solid	3546	
280-95393-19	RC4-SC-56	Total/NA	Solid	3546	
280-95393-20	RC4-SC-57	Total/NA	Solid	3546	
MB 280-367936/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-367936/2-A	Lab Control Sample	Total/NA	Solid	3546	
280-95393-13 MS	RC4-SC-50	Total/NA	Solid	3546	
280-95393-13 MSD	RC4-SC-50	Total/NA	Solid	3546	

Prep Batch: 368299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-4	RC4-SC-41	Total/NA	Solid	3546	
MB 280-368299/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-368299/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 368312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-1	RC4-SC-38	Total/NA	Solid	8015C	367732

TestAmerica Denver

QC Association Summary

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

TestAmerica Job ID: 280-95393-1

GC Semi VOA (Continued)

Analysis Batch: 368312 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-367732/1-A	Method Blank	Total/NA	Solid	8015C	367732
LCS 280-367732/2-A	Lab Control Sample	Total/NA	Solid	8015C	367732

Analysis Batch: 368348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-2	RC4-SC-39	Total/NA	Solid	8015C	367732
280-95393-3	RC4-SC-40	Total/NA	Solid	8015C	367732
280-95393-5	RC4-SC-42	Total/NA	Solid	8015C	367732
280-95393-6	RC4-SC-43	Total/NA	Solid	8015C	367732
280-95393-7	RC4-SC-44	Total/NA	Solid	8015C	367732
280-95393-8	RC4-SC-45	Total/NA	Solid	8015C	367732
280-95393-9	RC4-SC-46	Total/NA	Solid	8015C	367732
280-95393-10	RC4-SC-47	Total/NA	Solid	8015C	367732
280-95393-11	RC4-SC-48	Total/NA	Solid	8015C	367732
280-95393-12	RC4-SC-49	Total/NA	Solid	8015C	367732

Analysis Batch: 368505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-15	RC4-SC-52	Total/NA	Solid	8015C	367936
280-95393-19	RC4-SC-56	Total/NA	Solid	8015C	367936
LCS 280-367936/2-A	Lab Control Sample	Total/NA	Solid	8015C	367936

Analysis Batch: 368632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-13	RC4-SC-50	Total/NA	Solid	8015C	367936
280-95393-14	RC4-SC-51	Total/NA	Solid	8015C	367936
280-95393-16	RC4-SC-53	Total/NA	Solid	8015C	367936
280-95393-17	RC4-SC-54	Total/NA	Solid	8015C	367936
280-95393-18	RC4-SC-55	Total/NA	Solid	8015C	367936
280-95393-20	RC4-SC-57	Total/NA	Solid	8015C	367936
MB 280-367936/1-A	Method Blank	Total/NA	Solid	8015C	367936
280-95393-13 MS	RC4-SC-50	Total/NA	Solid	8015C	367936
280-95393-13 MSD	RC4-SC-50	Total/NA	Solid	8015C	367936

Analysis Batch: 368913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-4	RC4-SC-41	Total/NA	Solid	8015C	368299
MB 280-368299/1-A	Method Blank	Total/NA	Solid	8015C	368299
LCS 280-368299/2-A	Lab Control Sample	Total/NA	Solid	8015C	368299

General Chemistry

Analysis Batch: 367692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-1	RC4-SC-38	Total/NA	Solid	Moisture	
280-95393-2	RC4-SC-39	Total/NA	Solid	Moisture	
280-95393-3	RC4-SC-40	Total/NA	Solid	Moisture	
280-95393-4	RC4-SC-41	Total/NA	Solid	Moisture	
280-95393-5	RC4-SC-42	Total/NA	Solid	Moisture	
280-95393-6	RC4-SC-43	Total/NA	Solid	Moisture	

TestAmerica Denver

QC Association Summary

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

TestAmerica Job ID: 280-95393-1

General Chemistry (Continued)

Analysis Batch: 367692 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-7	RC4-SC-44	Total/NA	Solid	Moisture	
280-95393-8	RC4-SC-45	Total/NA	Solid	Moisture	
280-95393-9	RC4-SC-46	Total/NA	Solid	Moisture	
280-95393-10	RC4-SC-47	Total/NA	Solid	Moisture	
280-95393-11	RC4-SC-48	Total/NA	Solid	Moisture	
280-95393-12	RC4-SC-49	Total/NA	Solid	Moisture	
280-95393-13	RC4-SC-50	Total/NA	Solid	Moisture	
280-95393-14	RC4-SC-51	Total/NA	Solid	Moisture	
280-95393-15	RC4-SC-52	Total/NA	Solid	Moisture	
280-95393-16	RC4-SC-53	Total/NA	Solid	Moisture	
280-95393-17	RC4-SC-54	Total/NA	Solid	Moisture	
280-95393-18	RC4-SC-55	Total/NA	Solid	Moisture	
280-95393-19	RC4-SC-56	Total/NA	Solid	Moisture	
280-95393-20	RC4-SC-57	Total/NA	Solid	Moisture	
280-95393-1 DU	RC4-SC-38	Total/NA	Solid	Moisture	
280-95393-19 DU	RC4-SC-56	Total/NA	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-38

Date Collected: 03/30/17 10:05

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-1

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	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.25 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-39

Date Collected: 03/30/17 10:10

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-2

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	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 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 Collected: 03/30/17 10:15

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-3

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	Moisture		1			367692	04/01/17 16:46	RSM	TAL DEN

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.25 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

Lab Sample ID: 280-95393-3

Date Collected: 03/30/17 10:15

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 79.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	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-41

Lab Sample ID: 280-95393-4

Date Collected: 03/30/17 10:20

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-41

Lab Sample ID: 280-95393-4

Date Collected: 03/30/17 10:20

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 82.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			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

Lab Sample ID: 280-95393-5

Date Collected: 03/30/17 10:25

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-42

Lab Sample ID: 280-95393-5

Date Collected: 03/30/17 10:25

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 83.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.22 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-43

Date Collected: 03/30/17 10:30

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-6

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-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

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	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 Collected: 03/30/17 10:35

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-7

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-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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.90 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 Collected: 03/30/17 10:40

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-8

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-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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.23 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

Lab Sample ID: 280-95393-8

Date Collected: 03/30/17 10:40

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 82.4

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	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-46

Lab Sample ID: 280-95393-9

Date Collected: 03/30/17 10:45

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-46

Lab Sample ID: 280-95393-9

Date Collected: 03/30/17 10:45

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			4.94 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

Lab Sample ID: 280-95393-10

Date Collected: 03/30/17 10:50

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-47

Lab Sample ID: 280-95393-10

Date Collected: 03/30/17 10:50

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 89.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			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: 280-95393-11

Date Collected: 03/30/17 10:55

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-48

Lab Sample ID: 280-95393-11

Date Collected: 03/30/17 10:55

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 81.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 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: 280-95393-12

Date Collected: 03/30/17 11:00

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-49

Lab Sample ID: 280-95393-12

Date Collected: 03/30/17 11:00

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 82.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			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: 280-95393-13

Date Collected: 03/30/17 11:05

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-50

Lab Sample ID: 280-95393-13

Date Collected: 03/30/17 11:05

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 89.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			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

Lab Sample ID: 280-95393-13

Date Collected: 03/30/17 11:05

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 89.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015C		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-51

Lab Sample ID: 280-95393-14

Date Collected: 03/30/17 11:10

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-51

Lab Sample ID: 280-95393-14

Date Collected: 03/30/17 11:10

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	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

Lab Sample ID: 280-95393-15

Date Collected: 03/30/17 11:15

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-52

Lab Sample ID: 280-95393-15

Date Collected: 03/30/17 11:15

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 84.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 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-53

Lab Sample ID: 280-95393-16

Date Collected: 03/30/17 11:20

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-53

Lab Sample ID: 280-95393-16

Date Collected: 03/30/17 11:20

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 79.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.17 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: 280-95393-17

Date Collected: 03/30/17 11:25

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-54

Lab Sample ID: 280-95393-17

Date Collected: 03/30/17 11:25

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 88.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 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: 280-95393-18

Date Collected: 03/30/17 11:30

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-55

Lab Sample ID: 280-95393-18

Date Collected: 03/30/17 11:30

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 84.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			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

Lab Sample ID: 280-95393-18

Date Collected: 03/30/17 11:30

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 84.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015C		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-56

Lab Sample ID: 280-95393-19

Date Collected: 03/30/17 11:35

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-56

Lab Sample ID: 280-95393-19

Date Collected: 03/30/17 11:35

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 79.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.23 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

Lab Sample ID: 280-95393-20

Date Collected: 03/30/17 11:40

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-57

Lab Sample ID: 280-95393-20

Date Collected: 03/30/17 11:40

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 82.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.86 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: 280-95393-1

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

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	COC No:
Stanlec	Tel/Fax: (303) 250-4718	Lab Contact: Jamie Ide	Carrier: Courier	2 of 5 Pages
2000 South Colorado Blvd., Suite 2-300	Analysis Turnaround Time			Sampler: Stauthamer/Jones
Denver, CO 80222	<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS			For Lab Use Only:
(303) 758-4058 Phone	TAT if different from Below			Walk-in Client:
(303) 758-4828 FAX	ASAP			Lab Sampling:
Project Name: CPL-Rangely C-4	<input checked="" type="checkbox"/> 2 weeks			Job / SDG No.:
Site: CPL Rangely	<input type="checkbox"/> 1 week			
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.	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 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: 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		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		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=Grab)	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: ☐ BW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Bethany Lucente		Site Contact: Bethany Lucente		Date: 3/31/2017		COC No: 14 of 5 Pages	
Slantec		Tel/Fax: (303) 250-4718		Lab Contact: Jamie Ide		Carrier: Courier		Sampler: Stauthamer/Jones	
2000 South Colorado Blvd., Suite 2-300		Analysis Turnaround Time		Perform MS / MSD (Y / N)				For Lab Use Only:	
Denver, CO 80222		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS		Filtered Sample (Y / N)				Walk-in Client:	
(303) 758-4058 Phone		TAT if different from Below		Sample Type (C-Comp, G-Grab)				Lab Sampling:	
(303) 758-4828 FAX		ASAP		Sample Time				Job / SDG No.:	
Project Name: CPL-Rangely C-4		<input checked="" type="checkbox"/> 2 weeks		Matrix					
Site: CPL Rangely		<input type="checkbox"/> 1 week		# of Cont.					
P O # 203720102		<input type="checkbox"/> 2 days							
		<input type="checkbox"/> 1 day							
Sample Identification		Sample Date		Sample Time		Matrix		Sample Specific Notes:	
RC4-SC-DUP5	3/30/2017	1610	G	Soil	4				
RC4-SC-97	3/30/2017	1610	G	Soil	6				
RC4-SC-98	3/30/2017	1615	G	Soil	2				
RC4-SC-99	3/30/2017	1620	G	Soil	2				
RC4-SC-100	3/30/2017	1625	G	Soil	2				
RC4-SC-101	3/30/2017	1630	G	Soil	2				
RC4-SC-102	3/30/2017	1635	G	Soil	2				
RC4-SC-103	3/30/2017	1640	G	Soil	2				
RC4-SC-104	3/30/2017	1645	G	Soil	2				
RC4-SC-105	3/30/2017	1650	G	Soil	2				
RC4-SC-DUP6	3/30/2017	1650	G	Soil	4				
RC4-SC-106	3/30/2017	1655	G	Soil	6				
RC4-SC-107	3/30/2017	1700	G	Soil	2				
RC4-SC-108	3/30/2017	1705	G	Soil	2				
RC4-SC-109	3/30/2017	1710	G	Soil	2				
RC4-SC-110	3/30/2017	1715	G	Soil	2				
RC4-SC-111	3/30/2017	1720	G	Soil	2				
RC4-SC-112	3/30/2017	1725	G	Soil	2				
RC4-SC-113	3/30/2017	1730	G	Soil	2				
RC4-SC-114	3/30/2017	1735	G	Soil	2				
RC4-SC-115	3/30/2017	1740	G	Soil	2				

Reed PETA 3-31-17 1655 TAD

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		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				COC No: 5 of 5 Pages	
Denver, CO 80222		TAT if different from Below				Sampler: Stauthamer/Jones	
(303) 758-4058 Phone		ASAP				For Lab Use Only:	
(303) 758-4828 FAX		<input checked="" type="checkbox"/> 2 weeks				Walk-in Client:	
Project Name: CPL-Rangely C-4		<input type="checkbox"/> 1 week				Lab Sampling:	
Site: CPL Rangely		<input type="checkbox"/> 2 days				Job / SDG No.:	
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	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: Please List any EPA Waste Codes for the sample in the

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.

☒ 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

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: Stantec	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 Number: 1

Creator: Pottruff, Reed W

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.	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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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.

Table of Contents

Cover Page 1

Table of Contents 2

Definitions 3

Case Narrative 4

Detection Summary 6

Method Summary 9

Sample Summary 10

Client Sample Results 11

Surrogate Summary 21

QC Sample Results 23

QC Association 27

Chronicle 31

Certification Summary 39

Chain of Custody 40

Receipt Checklists 45



Definitions/Glossary

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

TestAmerica Job ID: 280-95393-2

Qualifiers

GC VOA

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 Semi VOA

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 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: 280-95393-2

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-58

Lab Sample ID: 280-95393-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
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-59

Lab Sample ID: 280-95393-22

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)	350		4.8	0.81	mg/Kg	1		✖	8015C	Total/NA

Client Sample ID: RC4-SC-60

Lab Sample ID: 280-95393-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
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-61

Lab Sample ID: 280-95393-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
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: 280-95393-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
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-63

Lab Sample ID: 280-95393-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
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: 280-95393-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
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-65

Lab Sample ID: 280-95393-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
DRO (C10-C28)	20		4.8	0.81	mg/Kg	1		✖	8015C	Total/NA

Client Sample ID: RC4-SC-66

Lab Sample ID: 280-95393-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
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: 280-95393-30

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)	390		4.3	0.74	mg/Kg	1		✖	8015C	Total/NA

Client Sample ID: RC4-SC-68

Lab Sample ID: 280-95393-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
DRO (C10-C28)	100		4.7	0.79	mg/Kg	1		✖	8015C	Total/NA

Client Sample ID: RC4-SC-69

Lab Sample ID: 280-95393-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
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: 280-95393-33

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
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-DUP1

Lab Sample ID: 280-95393-34

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
DRO (C10-C28)	6.9		4.8	0.81	mg/Kg	1		✖	8015C	Total/NA

Client Sample ID: RC4-SC-71

Lab Sample ID: 280-95393-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
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: 280-95393-36

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
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-73

Lab Sample ID: 280-95393-37

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
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: 280-95393-38

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
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-75

Lab Sample ID: 280-95393-39

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-75 (Continued)

Lab Sample ID: 280-95393-39

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
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: 280-95393-40

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
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

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

TestAmerica Job ID: 280-95393-2

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: 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

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)

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		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	15		15	4.1	mg/Kg	☼	04/04/17 13:28	04/06/17 01:13	10
Surrogate	%Recovery	Qualifier	Limits						
a,a,a-Trifluorotoluene	85		77 - 123						
							Lab Sample ID: 280-95393-22 Matrix: Solid Percent Solids: 81.4		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	19		1.4	0.39	mg/Kg	☼	04/04/17 13:28	04/06/17 14:56	1
Surrogate	%Recovery	Qualifier	Limits						
a,a,a-Trifluorotoluene	71	X	77 - 123						
							Lab Sample ID: 280-95393-23 Matrix: Solid Percent Solids: 83.9		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	98		7.3	2.0	mg/Kg	☼	04/04/17 13:28	04/06/17 15:21	5
Surrogate	%Recovery	Qualifier	Limits						
a,a,a-Trifluorotoluene	84		77 - 123						
							Lab Sample ID: 280-95393-24 Matrix: Solid Percent Solids: 80.3		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	460		14	3.9	mg/Kg	☼	04/04/17 13:28	04/06/17 02:27	10
Surrogate	%Recovery	Qualifier	Limits						
a,a,a-Trifluorotoluene	261	D X	77 - 123						
							Lab Sample ID: 280-95393-25 Matrix: Solid Percent Solids: 76.8		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	33		1.6	0.44	mg/Kg	☼	04/04/17 13:28	04/06/17 15:46	1
Surrogate	%Recovery	Qualifier	Limits						
a,a,a-Trifluorotoluene	78		77 - 123						
							Lab Sample ID: 280-95393-26 Matrix: Solid Percent Solids: 83.2		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	14		1.5	0.40	mg/Kg	☼	04/04/17 13:28	04/06/17 16:11	1
Surrogate	%Recovery	Qualifier	Limits						
a,a,a-Trifluorotoluene	75	X	77 - 123						

TestAmerica Denver

Client Sample Results

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)

Client Sample ID: RC4-SC-64
Date Collected: 03/30/17 12:15
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-27
Matrix: Solid
Percent Solids: 82.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	2.2		1.4	0.39	mg/Kg	☼	04/04/17 13:28	04/06/17 16:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	68	X	77 - 123				04/04/17 13:28	04/06/17 16:36	1

Client Sample ID: RC4-SC-65
Date Collected: 03/30/17 12:20
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-28
Matrix: Solid
Percent Solids: 79.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.5	0.40	mg/Kg	☼	04/04/17 13:28	04/06/17 17:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	89		77 - 123				04/04/17 13:28	04/06/17 17:02	1

Client Sample ID: RC4-SC-66
Date Collected: 03/30/17 12:25
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-29
Matrix: Solid
Percent Solids: 81.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	2.5		1.5	0.39	mg/Kg	☼	04/04/17 13:28	04/06/17 17:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	85		77 - 123				04/04/17 13:28	04/06/17 17:52	1

Client Sample ID: RC4-SC-67
Date Collected: 03/30/17 12:30
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-30
Matrix: Solid
Percent Solids: 84.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	27		1.4	0.39	mg/Kg	☼	04/04/17 13:28	04/06/17 18:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	71	X	77 - 123				04/04/17 13:28	04/06/17 18:17	1

Client Sample ID: RC4-SC-68
Date Collected: 03/30/17 12:35
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-31
Matrix: Solid
Percent Solids: 83.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.4	0.37	mg/Kg	☼	04/04/17 13:28	04/06/17 18:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	78		77 - 123				04/04/17 13:28	04/06/17 18:42	1

Client Sample ID: RC4-SC-69
Date Collected: 03/30/17 12:40
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-32
Matrix: Solid
Percent Solids: 85.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	0.86	J	1.4	0.37	mg/Kg	☼	04/03/17 10:59	04/05/17 21:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	74	X	77 - 123				04/03/17 10:59	04/05/17 21:53	1

TestAmerica Denver

Client Sample Results

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)

Client Sample ID: RC4-SC-70
Date Collected: 03/30/17 12:45
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-33
Matrix: Solid
Percent Solids: 81.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	0.45	J	1.5	0.40	mg/Kg	☼	04/04/17 13:28	04/06/17 19:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	81		77 - 123				04/04/17 13:28	04/06/17 19:07	1

Client Sample ID: RC4-SC-DUP1
Date Collected: 03/30/17 12:45
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-34
Matrix: Solid
Percent Solids: 82.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.5	0.42	mg/Kg	☼	04/04/17 13:28	04/06/17 19:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	85		77 - 123				04/04/17 13:28	04/06/17 19:32	1

Client Sample ID: RC4-SC-71
Date Collected: 03/30/17 12:50
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-35
Matrix: Solid
Percent Solids: 82.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	280		15	4.1	mg/Kg	☼	04/04/17 13:28	04/06/17 07:00	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	231	D X	77 - 123				04/04/17 13:28	04/06/17 07:00	10

Client Sample ID: RC4-SC-72
Date Collected: 03/30/17 12:55
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-36
Matrix: Solid
Percent Solids: 79.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	14		1.5	0.40	mg/Kg	☼	04/04/17 13:28	04/06/17 20:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	79		77 - 123				04/04/17 13:28	04/06/17 20:22	1

Client Sample ID: RC4-SC-73
Date Collected: 03/30/17 13:00
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-37
Matrix: Solid
Percent Solids: 83.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	36		1.5	0.40	mg/Kg	☼	04/04/17 13:28	04/06/17 20:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	91		77 - 123				04/04/17 13:28	04/06/17 20:47	1

Client Sample ID: RC4-SC-74
Date Collected: 03/30/17 13:05
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-38
Matrix: Solid
Percent Solids: 83.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	270		15	4.0	mg/Kg	☼	04/04/17 13:28	04/06/17 08:15	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	233	D X	77 - 123				04/04/17 13:28	04/06/17 08:15	10

TestAmerica Denver

Client Sample Results

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)

Client Sample ID: RC4-SC-75
Date Collected: 03/30/17 13:10
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-39
Matrix: Solid
Percent Solids: 79.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	36		1.6	0.43	mg/Kg	☼	04/04/17 13:28	04/06/17 21:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	102		77 - 123				04/04/17 13:28	04/06/17 21:12	1

Client Sample ID: RC4-SC-76
Date Collected: 03/30/17 13:15
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-40
Matrix: Solid
Percent Solids: 81.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	70		3.0	0.81	mg/Kg	☼	04/04/17 13:56	04/06/17 23:40	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	105		77 - 123				04/04/17 13:56	04/06/17 23:40	2

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

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	110		4.7	0.80	mg/Kg	☼	04/04/17 10:23	04/07/17 19:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	84		49 - 115				04/04/17 10:23	04/07/17 19:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	350		4.8	0.81	mg/Kg	☼	04/04/17 10:23	04/07/17 19:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	134	X	49 - 115				04/04/17 10:23	04/07/17 19:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	2800		23	3.9	mg/Kg	☼	04/04/17 10:23	04/10/17 16:39	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	48	X D	49 - 115				04/04/17 10:23	04/10/17 16:39	5

Client Sample ID: RC4-SC-61
Date Collected: 03/30/17 12:00
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-24
Matrix: Solid
Percent Solids: 80.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	4500		25	4.2	mg/Kg	☼	04/04/17 10:23	04/10/17 17:04	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	28	X D	49 - 115				04/04/17 10:23	04/10/17 17:04	5

TestAmerica Denver

Client Sample Results

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)

Client Sample ID: RC4-SC-62
Date Collected: 03/30/17 12:05
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-25
Matrix: Solid
Percent Solids: 76.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	780		5.2	0.88	mg/Kg	☼	04/04/17 10:23	04/07/17 22:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	53		49 - 115				04/04/17 10:23	04/07/17 22:00	1

Client Sample ID: RC4-SC-63
Date Collected: 03/30/17 12:10
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-26
Matrix: Solid
Percent Solids: 83.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	3600		22	3.8	mg/Kg	☼	04/04/17 10:23	04/10/17 17:28	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	31	X D	49 - 115				04/04/17 10:23	04/10/17 17:28	5

Client Sample ID: RC4-SC-64
Date Collected: 03/30/17 12:15
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-27
Matrix: Solid
Percent Solids: 82.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	320		4.6	0.78	mg/Kg	☼	04/04/17 10:23	04/07/17 22:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	83		49 - 115				04/04/17 10:23	04/07/17 22:49	1

Client Sample ID: RC4-SC-65
Date Collected: 03/30/17 12:20
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-28
Matrix: Solid
Percent Solids: 79.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	20		4.8	0.81	mg/Kg	☼	04/04/17 10:23	04/07/17 23:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	104		49 - 115				04/04/17 10:23	04/07/17 23:38	1

Client Sample ID: RC4-SC-66
Date Collected: 03/30/17 12:25
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-29
Matrix: Solid
Percent Solids: 81.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	1100		4.8	0.81	mg/Kg	☼	04/04/17 10:23	04/08/17 00:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	43	X	49 - 115				04/04/17 10:23	04/08/17 00:03	1

Client Sample ID: RC4-SC-67
Date Collected: 03/30/17 12:30
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-30
Matrix: Solid
Percent Solids: 84.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	390		4.3	0.74	mg/Kg	☼	04/04/17 10:23	04/08/17 00:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	76		49 - 115				04/04/17 10:23	04/08/17 00:27	1

TestAmerica Denver

Client Sample Results

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)

Client Sample ID: RC4-SC-68
Date Collected: 03/30/17 12:35
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-31
Matrix: Solid
Percent Solids: 83.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	100		4.7	0.79	mg/Kg	☼	04/04/17 10:23	04/08/17 00:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	99		49 - 115				04/04/17 10:23	04/08/17 00:52	1

Client Sample ID: RC4-SC-69
Date Collected: 03/30/17 12:40
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-32
Matrix: Solid
Percent Solids: 85.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	59	F1	4.7	0.79	mg/Kg	☼	04/04/17 12:45	04/05/17 17:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	117	X	49 - 115				04/04/17 12:45	04/05/17 17:28	1

Client Sample ID: RC4-SC-70
Date Collected: 03/30/17 12:45
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-33
Matrix: Solid
Percent Solids: 81.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	12		4.6	0.78	mg/Kg	☼	04/04/17 10:23	04/08/17 01:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	106		49 - 115				04/04/17 10:23	04/08/17 01:17	1

Client Sample ID: RC4-SC-DUP1
Date Collected: 03/30/17 12:45
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-34
Matrix: Solid
Percent Solids: 82.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	6.9		4.8	0.81	mg/Kg	☼	04/04/17 12:45	04/05/17 18:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	101		49 - 115				04/04/17 12:45	04/05/17 18:42	1

Client Sample ID: RC4-SC-71
Date Collected: 03/30/17 12:50
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-35
Matrix: Solid
Percent Solids: 82.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	1100		4.8	0.81	mg/Kg	☼	04/04/17 12:45	04/05/17 19:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	58		49 - 115				04/04/17 12:45	04/05/17 19:07	1

Client Sample ID: RC4-SC-72
Date Collected: 03/30/17 12:55
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-36
Matrix: Solid
Percent Solids: 79.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	140		5.0	0.85	mg/Kg	☼	04/04/17 12:45	04/05/17 19:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	90		49 - 115				04/04/17 12:45	04/05/17 19:31	1

TestAmerica Denver

Client Sample Results

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)

Client Sample ID: RC4-SC-73
Date Collected: 03/30/17 13:00
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-37
Matrix: Solid
Percent Solids: 83.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	1000		4.7	0.80	mg/Kg	☼	04/04/17 12:45	04/05/17 19:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	45	X	49 - 115				04/04/17 12:45	04/05/17 19:56	1

Client Sample ID: RC4-SC-74
Date Collected: 03/30/17 13:05
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-38
Matrix: Solid
Percent Solids: 83.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	3200		24	4.0	mg/Kg	☼	04/04/17 12:45	04/06/17 20:24	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	46	X D	49 - 115				04/04/17 12:45	04/06/17 20:24	5

Client Sample ID: RC4-SC-75
Date Collected: 03/30/17 13:10
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-39
Matrix: Solid
Percent Solids: 79.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	330	F2	4.8	0.82	mg/Kg	☼	04/04/17 12:45	04/05/17 21:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	62		49 - 115				04/04/17 12:45	04/05/17 21:59	1

Client Sample ID: RC4-SC-76
Date Collected: 03/30/17 13:15
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-40
Matrix: Solid
Percent Solids: 81.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	720		4.9	0.83	mg/Kg	☼	04/04/17 12:45	04/05/17 23:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	70		49 - 115				04/04/17 12:45	04/05/17 23:12	1

General Chemistry

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.8		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	82.2		0.1	0.1	%			04/01/17 16:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.6		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	81.4		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: 280-95393-2

General Chemistry

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.1		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	83.9		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-61
Date Collected: 03/30/17 12:00
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-24
Matrix: Solid
Percent Solids: 80.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.7		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	80.3		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-62
Date Collected: 03/30/17 12:05
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-25
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	%			04/01/17 16:46	1
Percent Solids	76.8		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-63
Date Collected: 03/30/17 12:10
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-26
Matrix: Solid
Percent Solids: 83.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.8		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	83.2		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-64
Date Collected: 03/30/17 12:15
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-27
Matrix: Solid
Percent Solids: 82.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.1		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	82.9		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-65
Date Collected: 03/30/17 12:20
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-28
Matrix: Solid
Percent Solids: 79.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.3		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	79.7		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-66
Date Collected: 03/30/17 12:25
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-29
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-67
Date Collected: 03/30/17 12:30
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-30
Matrix: Solid
Percent Solids: 84.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.8		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	84.2		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: 280-95393-2

General Chemistry

Client Sample ID: RC4-SC-68
Date Collected: 03/30/17 12:35
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-31
Matrix: Solid
Percent Solids: 83.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.8		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	83.2		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-69
Date Collected: 03/30/17 12:40
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-32
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

Client Sample ID: RC4-SC-70
Date Collected: 03/30/17 12:45
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-33
Matrix: Solid
Percent Solids: 81.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.4		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	81.6		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-DUP1
Date Collected: 03/30/17 12:45
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-34
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-71
Date Collected: 03/30/17 12:50
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-35
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	%			04/01/17 16:46	1
Percent Solids	82.6		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-72
Date Collected: 03/30/17 12:55
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-36
Matrix: Solid
Percent Solids: 79.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.9		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	79.1		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-73
Date Collected: 03/30/17 13:00
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-37
Matrix: Solid
Percent Solids: 83.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.8		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	83.2		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-74
Date Collected: 03/30/17 13:05
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-38
Matrix: Solid
Percent Solids: 83.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.8		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	83.2		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: 280-95393-2

General Chemistry

Client Sample ID: RC4-SC-75
Date Collected: 03/30/17 13:10
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-39
Matrix: Solid
Percent Solids: 79.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.1		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	79.9		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-76
Date Collected: 03/30/17 13:15
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-40
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

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

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)

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: 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
GRO (C6-C10)	0.86	J	6.26	6.40		mg/Kg	☼	88	85 - 153
Surrogate	MS %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
GRO (C6-C10)	0.86	J	6.67	7.30		mg/Kg	☼	97	85 - 153	13	30
Surrogate	MSD %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
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

TestAmerica Denver

QC Sample Results

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) (Continued)

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				

Lab Sample ID: 280-95393-39 MS

Matrix: Solid

Analysis Batch: 368351

Client Sample ID: RC4-SC-75

Prep Type: Total/NA

Prep Batch: 368014

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
GRO (C6-C10)	36		6.66	20.7	4	mg/Kg	✱	-235	85 - 153
Surrogate	MS %Recovery	MS Qualifier	Limits						
a,a,a-Trifluorotoluene	37	X	77 - 123						

Lab Sample ID: 280-95393-39 MSD

Matrix: Solid

Analysis Batch: 368351

Client Sample ID: RC4-SC-75

Prep Type: Total/NA

Prep Batch: 368014

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
GRO (C6-C10)	36		7.14	22.7	4	mg/Kg	✱	-191	85 - 153	9	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
a,a,a-Trifluorotoluene	43	X	77 - 123								

Lab Sample ID: MB 280-368018/1-A

Matrix: Solid

Analysis Batch: 368624

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 368018

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 13:56	04/06/17 22:51	1
Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac			
a,a,a-Trifluorotoluene	95		77 - 123	04/04/17 13:56	04/06/17 22:51	1			

Lab Sample ID: LCS 280-368018/2-A

Matrix: Solid

Analysis Batch: 368624

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 368018

Analyte	Spike Added	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	88		77 - 123				

TestAmerica Denver

QC Sample Results

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)

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	%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	Limits		
DRO (C10-C28)	66.7	65.9		mg/Kg		99	53 - 115		
Surrogate	%Recovery	LCS Qualifier	Limits						
o-Terphenyl (Surr)	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
DRO (C10-C28)	ND		4.0	0.68	mg/Kg		04/04/17 12:45	04/05/17 16:39	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	192	X	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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
DRO (C10-C28)	66.7	61.1		mg/Kg		92	53 - 115		
Surrogate	%Recovery	LCS Qualifier	Limits						
o-Terphenyl (Surr)	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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
DRO (C10-C28)	59	F1	77.4	208	F1	mg/Kg	☼	193	56 - 115
Surrogate	%Recovery	MS Qualifier	Limits						
o-Terphenyl (Surr)	110		49 - 115						

TestAmerica Denver

QC Sample Results

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)

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
DRO (C10-C28)	59	F1	73.8	214	F1	mg/Kg	☼	211	56 - 115	3	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
<i>o</i> -Terphenyl (Surr)	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	RPD	Limit
DRO (C10-C28)	330	F2	78.2	272	4	mg/Kg	☼	-77	56 - 115		
Surrogate	MS %Recovery	MS Qualifier	Limits								
<i>o</i> -Terphenyl (Surr)	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
DRO (C10-C28)	330	F2	82.1	688	4 F2	mg/Kg	☼	433	56 - 115	87	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
<i>o</i> -Terphenyl (Surr)	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
Percent Moisture	20.9		21.0		%		0.7	20
Percent Solids	79.1		79.0		%		0.2	20

TestAmerica Denver

QC Association Summary

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

TestAmerica Job ID: 280-95393-2

GC VOA

Prep Batch: 367815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-32	RC4-SC-69	Total/NA	Solid	5035	
MB 280-367815/1-A	Method Blank	Total/NA	Solid	5035	
LCS 280-367815/2-A	Lab Control Sample	Total/NA	Solid	5035	
280-95393-32 MS	RC4-SC-69	Total/NA	Solid	5035	
280-95393-32 MSD	RC4-SC-69	Total/NA	Solid	5035	

Prep Batch: 368014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-21	RC4-SC-58	Total/NA	Solid	5035	
280-95393-22	RC4-SC-59	Total/NA	Solid	5035	
280-95393-23	RC4-SC-60	Total/NA	Solid	5035	
280-95393-24	RC4-SC-61	Total/NA	Solid	5035	
280-95393-25	RC4-SC-62	Total/NA	Solid	5035	
280-95393-26	RC4-SC-63	Total/NA	Solid	5035	
280-95393-27	RC4-SC-64	Total/NA	Solid	5035	
280-95393-28	RC4-SC-65	Total/NA	Solid	5035	
280-95393-29	RC4-SC-66	Total/NA	Solid	5035	
280-95393-30	RC4-SC-67	Total/NA	Solid	5035	
280-95393-31	RC4-SC-68	Total/NA	Solid	5035	
280-95393-33	RC4-SC-70	Total/NA	Solid	5035	
280-95393-34	RC4-SC-DUP1	Total/NA	Solid	5035	
280-95393-35	RC4-SC-71	Total/NA	Solid	5035	
280-95393-36	RC4-SC-72	Total/NA	Solid	5035	
280-95393-37	RC4-SC-73	Total/NA	Solid	5035	
280-95393-38	RC4-SC-74	Total/NA	Solid	5035	
280-95393-39	RC4-SC-75	Total/NA	Solid	5035	
MB 280-368014/1-A	Method Blank	Total/NA	Solid	5035	
LCS 280-368014/2-A	Lab Control Sample	Total/NA	Solid	5035	
280-95393-39 MS	RC4-SC-75	Total/NA	Solid	5035	
280-95393-39 MSD	RC4-SC-75	Total/NA	Solid	5035	

Prep Batch: 368018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-40	RC4-SC-76	Total/NA	Solid	5035	
MB 280-368018/1-A	Method Blank	Total/NA	Solid	5035	
LCS 280-368018/2-A	Lab Control Sample	Total/NA	Solid	5035	

Analysis Batch: 368173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-32	RC4-SC-69	Total/NA	Solid	8015C	367815
MB 280-367815/1-A	Method Blank	Total/NA	Solid	8015C	367815
LCS 280-367815/2-A	Lab Control Sample	Total/NA	Solid	8015C	367815
280-95393-32 MS	RC4-SC-69	Total/NA	Solid	8015C	367815
280-95393-32 MSD	RC4-SC-69	Total/NA	Solid	8015C	367815

Analysis Batch: 368285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-21	RC4-SC-58	Total/NA	Solid	8015C	368014
280-95393-24	RC4-SC-61	Total/NA	Solid	8015C	368014
280-95393-35	RC4-SC-71	Total/NA	Solid	8015C	368014
280-95393-38	RC4-SC-74	Total/NA	Solid	8015C	368014

TestAmerica Denver

QC Association Summary

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

TestAmerica Job ID: 280-95393-2

GC VOA (Continued)

Analysis Batch: 368285 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-368014/1-A	Method Blank	Total/NA	Solid	8015C	368014
LCS 280-368014/2-A	Lab Control Sample	Total/NA	Solid	8015C	368014

Analysis Batch: 368351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-22	RC4-SC-59	Total/NA	Solid	8015C	368014
280-95393-23	RC4-SC-60	Total/NA	Solid	8015C	368014
280-95393-25	RC4-SC-62	Total/NA	Solid	8015C	368014
280-95393-26	RC4-SC-63	Total/NA	Solid	8015C	368014
280-95393-27	RC4-SC-64	Total/NA	Solid	8015C	368014
280-95393-28	RC4-SC-65	Total/NA	Solid	8015C	368014
280-95393-29	RC4-SC-66	Total/NA	Solid	8015C	368014
280-95393-30	RC4-SC-67	Total/NA	Solid	8015C	368014
280-95393-31	RC4-SC-68	Total/NA	Solid	8015C	368014
280-95393-33	RC4-SC-70	Total/NA	Solid	8015C	368014
280-95393-34	RC4-SC-DUP1	Total/NA	Solid	8015C	368014
280-95393-36	RC4-SC-72	Total/NA	Solid	8015C	368014
280-95393-37	RC4-SC-73	Total/NA	Solid	8015C	368014
280-95393-39	RC4-SC-75	Total/NA	Solid	8015C	368014
280-95393-39 MS	RC4-SC-75	Total/NA	Solid	8015C	368014
280-95393-39 MSD	RC4-SC-75	Total/NA	Solid	8015C	368014

Analysis Batch: 368624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-40	RC4-SC-76	Total/NA	Solid	8015C	368018
MB 280-368018/1-A	Method Blank	Total/NA	Solid	8015C	368018
LCS 280-368018/2-A	Lab Control Sample	Total/NA	Solid	8015C	368018

GC Semi VOA

Prep Batch: 367936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-21	RC4-SC-58	Total/NA	Solid	3546	
280-95393-22	RC4-SC-59	Total/NA	Solid	3546	
280-95393-23	RC4-SC-60	Total/NA	Solid	3546	
280-95393-24	RC4-SC-61	Total/NA	Solid	3546	
280-95393-25	RC4-SC-62	Total/NA	Solid	3546	
280-95393-26	RC4-SC-63	Total/NA	Solid	3546	
280-95393-27	RC4-SC-64	Total/NA	Solid	3546	
280-95393-28	RC4-SC-65	Total/NA	Solid	3546	
280-95393-29	RC4-SC-66	Total/NA	Solid	3546	
280-95393-30	RC4-SC-67	Total/NA	Solid	3546	
280-95393-31	RC4-SC-68	Total/NA	Solid	3546	
280-95393-33	RC4-SC-70	Total/NA	Solid	3546	
MB 280-367936/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-367936/2-A	Lab Control Sample	Total/NA	Solid	3546	

Prep Batch: 367989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-32	RC4-SC-69	Total/NA	Solid	3546	

TestAmerica Denver

QC Association Summary

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

TestAmerica Job ID: 280-95393-2

GC Semi VOA (Continued)

Prep Batch: 367989 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-34	RC4-SC-DUP1	Total/NA	Solid	3546	
280-95393-35	RC4-SC-71	Total/NA	Solid	3546	
280-95393-36	RC4-SC-72	Total/NA	Solid	3546	
280-95393-37	RC4-SC-73	Total/NA	Solid	3546	
280-95393-38	RC4-SC-74	Total/NA	Solid	3546	
280-95393-39	RC4-SC-75	Total/NA	Solid	3546	
280-95393-40	RC4-SC-76	Total/NA	Solid	3546	
MB 280-367989/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-367989/2-A	Lab Control Sample	Total/NA	Solid	3546	
280-95393-32 MS	RC4-SC-69	Total/NA	Solid	3546	
280-95393-32 MSD	RC4-SC-69	Total/NA	Solid	3546	
280-95393-39 MS	RC4-SC-75	Total/NA	Solid	3546	
280-95393-39 MSD	RC4-SC-75	Total/NA	Solid	3546	

Analysis Batch: 368183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-32	RC4-SC-69	Total/NA	Solid	8015C	367989
280-95393-34	RC4-SC-DUP1	Total/NA	Solid	8015C	367989
280-95393-35	RC4-SC-71	Total/NA	Solid	8015C	367989
280-95393-36	RC4-SC-72	Total/NA	Solid	8015C	367989
280-95393-37	RC4-SC-73	Total/NA	Solid	8015C	367989
280-95393-39	RC4-SC-75	Total/NA	Solid	8015C	367989
280-95393-40	RC4-SC-76	Total/NA	Solid	8015C	367989
MB 280-367989/1-A	Method Blank	Total/NA	Solid	8015C	367989
LCS 280-367989/2-A	Lab Control Sample	Total/NA	Solid	8015C	367989
280-95393-32 MS	RC4-SC-69	Total/NA	Solid	8015C	367989
280-95393-32 MSD	RC4-SC-69	Total/NA	Solid	8015C	367989
280-95393-39 MS	RC4-SC-75	Total/NA	Solid	8015C	367989
280-95393-39 MSD	RC4-SC-75	Total/NA	Solid	8015C	367989

Analysis Batch: 368348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-38	RC4-SC-74	Total/NA	Solid	8015C	367989

Analysis Batch: 368505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-21	RC4-SC-58	Total/NA	Solid	8015C	367936
280-95393-22	RC4-SC-59	Total/NA	Solid	8015C	367936
280-95393-25	RC4-SC-62	Total/NA	Solid	8015C	367936
280-95393-27	RC4-SC-64	Total/NA	Solid	8015C	367936
280-95393-28	RC4-SC-65	Total/NA	Solid	8015C	367936
280-95393-29	RC4-SC-66	Total/NA	Solid	8015C	367936
280-95393-30	RC4-SC-67	Total/NA	Solid	8015C	367936
280-95393-31	RC4-SC-68	Total/NA	Solid	8015C	367936
280-95393-33	RC4-SC-70	Total/NA	Solid	8015C	367936
LCS 280-367936/2-A	Lab Control Sample	Total/NA	Solid	8015C	367936

Analysis Batch: 368632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-23	RC4-SC-60	Total/NA	Solid	8015C	367936
280-95393-24	RC4-SC-61	Total/NA	Solid	8015C	367936

TestAmerica Denver

QC Association Summary

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

TestAmerica Job ID: 280-95393-2

GC Semi VOA (Continued)

Analysis Batch: 368632 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-26	RC4-SC-63	Total/NA	Solid	8015C	367936
MB 280-367936/1-A	Method Blank	Total/NA	Solid	8015C	367936

General Chemistry

Analysis Batch: 367692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-21	RC4-SC-58	Total/NA	Solid	Moisture	
280-95393-22	RC4-SC-59	Total/NA	Solid	Moisture	
280-95393-23	RC4-SC-60	Total/NA	Solid	Moisture	
280-95393-24	RC4-SC-61	Total/NA	Solid	Moisture	
280-95393-25	RC4-SC-62	Total/NA	Solid	Moisture	
280-95393-26	RC4-SC-63	Total/NA	Solid	Moisture	
280-95393-27	RC4-SC-64	Total/NA	Solid	Moisture	
280-95393-28	RC4-SC-65	Total/NA	Solid	Moisture	
280-95393-29	RC4-SC-66	Total/NA	Solid	Moisture	
280-95393-30	RC4-SC-67	Total/NA	Solid	Moisture	
280-95393-31	RC4-SC-68	Total/NA	Solid	Moisture	
280-95393-32	RC4-SC-69	Total/NA	Solid	Moisture	
280-95393-33	RC4-SC-70	Total/NA	Solid	Moisture	
280-95393-34	RC4-SC-DUP1	Total/NA	Solid	Moisture	
280-95393-35	RC4-SC-71	Total/NA	Solid	Moisture	
280-95393-36	RC4-SC-72	Total/NA	Solid	Moisture	
280-95393-37	RC4-SC-73	Total/NA	Solid	Moisture	
280-95393-38	RC4-SC-74	Total/NA	Solid	Moisture	
280-95393-39	RC4-SC-75	Total/NA	Solid	Moisture	
280-95393-40	RC4-SC-76	Total/NA	Solid	Moisture	
280-95393-36 DU	RC4-SC-72	Total/NA	Solid	Moisture	

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.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-2

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

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		COC No: 1 of 5 Pages	
2000 South Colorado Blvd., Suite 2-300		Analysis Turnaround Time		Lab Contact: Jamie Ide		Carrier: Courier		Sampler: Stauthamer/Jones	
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) Perform MS / MSD (Y/N) GRO-TEPH 8015C DRO-TEPH 8015C				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-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 PDA 3-31-17 1655 TAD

Arvada, CO 80002-4517
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Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Bethany Lucente	Site Contact: Bethany Lucente	Date: 3/31/2017	COC No:
Stanlec	Tel/Fax: (303) 250-4718	Lab Contact: Jamie Ide	Carrier: Courier	2 of 5 Pages
2000 South Colorado Blvd., Suite 2-300	Analysis Turnaround Time			Sampler: Stauthamer/Jones
Denver, CO 80222	<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS			For Lab Use Only:
(303) 758-4058 Phone	TAT if different from Below			Walk-in Client:
(303) 758-4828 FAX	ASAP			Lab Sampling:
Project Name: CPL-Rangely C-4	<input checked="" type="checkbox"/> 2 weeks			Job / SDG No.:
Site: CPL Rangely	<input type="checkbox"/> 1 week			
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.	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 P. A. 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: 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		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		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=Grab)	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 3-31-17 1655 TAD

Chain of Custody Record

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ BW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Bethany Lucente		Site Contact: Bethany Lucente		Date: 3/31/2017		COC No: 14 of 5 Pages	
Slantec		Tel/Fax: (303) 250-4718		Lab Contact: Jamie Ide		Carrier: Courier		Sampler: Stautthamer/Jones	
2000 South Colorado Blvd., Suite 2-300		Analysis Turnaround Time		Perform MS / MSD (Y / N)				For Lab Use Only:	
Denver, CO 80222		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS		Filtered Sample (Y / N)				Walk-in Client:	
(303) 758-4058 Phone		TAT if different from Below		Sample Type (C-Comp, G-Grab)				Lab Sampling:	
(303) 758-4828 FAX		ASAP		Sample Date				Job / SDG No.:	
Project Name: CPL-Rangely C-4		2 weeks		Sample Time					
Site: CPL Rangely		1 week		Matrix					
P O # 203720102		2 days		# of Cont.					
		1 day							
Sample Identification		Sample Date		Sample Time		Matrix		Sample Specific Notes:	
RC4-SC-DUP5	3/30/2017	1610	G	Soil	4				
RC4-SC-97	3/30/2017	1610	G	Soil	6				
RC4-SC-98	3/30/2017	1615	G	Soil	2				
RC4-SC-99	3/30/2017	1620	G	Soil	2				
RC4-SC-100	3/30/2017	1625	G	Soil	2				
RC4-SC-101	3/30/2017	1630	G	Soil	2				
RC4-SC-102	3/30/2017	1635	G	Soil	2				
RC4-SC-103	3/30/2017	1640	G	Soil	2				
RC4-SC-104	3/30/2017	1645	G	Soil	2				
RC4-SC-105	3/30/2017	1650	G	Soil	2				
RC4-SC-DUP6	3/30/2017	1650	G	Soil	4				
RC4-SC-106	3/30/2017	1655	G	Soil	6				
RC4-SC-107	3/30/2017	1700	G	Soil	2				
RC4-SC-108	3/30/2017	1705	G	Soil	2				
RC4-SC-109	3/30/2017	1710	G	Soil	2				
RC4-SC-110	3/30/2017	1715	G	Soil	2				
RC4-SC-111	3/30/2017	1720	G	Soil	2				
RC4-SC-112	3/30/2017	1725	G	Soil	2				
RC4-SC-113	3/30/2017	1730	G	Soil	2				
RC4-SC-114	3/30/2017	1735	G	Soil	2				
RC4-SC-115	3/30/2017	1740	G	Soil	2				

Reed PETA 3-31-17 1655 TAD

Chain of Custody Record

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		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				COC No: 5 of 5 Pages	
Denver, CO 80222		TAT if different from Below				Sampler: Stauthamer/Jones	
(303) 758-4058 Phone		ASAP				For Lab Use Only:	
(303) 758-4828 FAX		<input checked="" type="checkbox"/> 2 weeks				Walk-in Client:	
Project Name: CPL-Rangely C-4		<input type="checkbox"/> 1 week				Lab Sampling:	
Site: CPL Rangely		<input type="checkbox"/> 2 days				Job / SDG No.:	
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	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: Please List any EPA Waste Codes for the sample in the

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.

☒ 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

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
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: 280-95393-3

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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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.

Table of Contents

Cover Page 1

Table of Contents 2

Definitions 3

Case Narrative 4

Detection Summary 6

Method Summary 9

Sample Summary 10

Client Sample Results 11

Surrogate Summary 21

QC Sample Results 23

QC Association 26

Chronicle 30

Certification Summary 38

Chain of Custody 39

Receipt Checklists 44



Definitions/Glossary

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

TestAmerica Job ID: 280-95393-3

Qualifiers

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
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 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
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 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: 280-95393-3

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-DUP2

Lab Sample ID: 280-95393-41

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep 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-77

Lab Sample ID: 280-95393-42

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep 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-78

Lab Sample ID: 280-95393-43

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep 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-79

Lab Sample ID: 280-95393-44

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep 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-80

Lab Sample ID: 280-95393-45

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep 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-DUP3

Lab Sample ID: 280-95393-46

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep 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-81

Lab Sample ID: 280-95393-47

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep 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-82

Lab Sample ID: 280-95393-48

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep 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-83

Lab Sample ID: 280-95393-49

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep 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-84

Lab Sample ID: 280-95393-50

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep 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-85

Lab Sample ID: 280-95393-51

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep 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-86

Lab Sample ID: 280-95393-52

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep 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-87

Lab Sample ID: 280-95393-53

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep 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-DUP4

Lab Sample ID: 280-95393-54

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep 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-88

Lab Sample ID: 280-95393-55

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep 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-89

Lab Sample ID: 280-95393-56

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep 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-90

Lab Sample ID: 280-95393-57

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep 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-91

Lab Sample ID: 280-95393-58

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep 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-92

Lab Sample ID: 280-95393-59

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep 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-93

Lab Sample ID: 280-95393-60

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep 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

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

TestAmerica Job ID: 280-95393-3

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: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-95393-41	RC4-SC-DUP2	Solid	03/30/17 13:15	03/31/17 16:55
280-95393-42	RC4-SC-77	Solid	03/30/17 13:20	03/31/17 16:55
280-95393-43	RC4-SC-78	Solid	03/30/17 13:25	03/31/17 16:55
280-95393-44	RC4-SC-79	Solid	03/30/17 13:30	03/31/17 16:55
280-95393-45	RC4-SC-80	Solid	03/30/17 13:35	03/31/17 16:55
280-95393-46	RC4-SC-DUP3	Solid	03/30/17 13:35	03/31/17 16:55
280-95393-47	RC4-SC-81	Solid	03/30/17 14:50	03/31/17 16:55
280-95393-48	RC4-SC-82	Solid	03/30/17 14:55	03/31/17 16:55
280-95393-49	RC4-SC-83	Solid	03/30/17 15:00	03/31/17 16:55
280-95393-50	RC4-SC-84	Solid	03/30/17 15:05	03/31/17 16:55
280-95393-51	RC4-SC-85	Solid	03/30/17 15:10	03/31/17 16:55
280-95393-52	RC4-SC-86	Solid	03/30/17 15:15	03/31/17 16:55
280-95393-53	RC4-SC-87	Solid	03/30/17 15:20	03/31/17 16:55
280-95393-54	RC4-SC-DUP4	Solid	03/30/17 15:20	03/31/17 16:55
280-95393-55	RC4-SC-88	Solid	03/30/17 15:25	03/31/17 16:55
280-95393-56	RC4-SC-89	Solid	03/30/17 15:30	03/31/17 16:55
280-95393-57	RC4-SC-90	Solid	03/30/17 15:35	03/31/17 16:55
280-95393-58	RC4-SC-91	Solid	03/30/17 15:40	03/31/17 16:55
280-95393-59	RC4-SC-92	Solid	03/30/17 15:45	03/31/17 16:55
280-95393-60	RC4-SC-93	Solid	03/30/17 15:50	03/31/17 16:55

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							Lab Sample ID: 280-95393-41 Matrix: Solid Percent Solids: 83.3		
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						
a,a,a-Trifluorotoluene	112	D	77 - 123						
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
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						
a,a,a-Trifluorotoluene	89		77 - 123						
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
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						
a,a,a-Trifluorotoluene	74	X	77 - 123						
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
GRO (C6-C10)	490		29	7.8	mg/Kg	☼	04/04/17 13:56	04/07/17 01:21	20
Surrogate	%Recovery	Qualifier	Limits						
a,a,a-Trifluorotoluene	508	D X	77 - 123						
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
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						
a,a,a-Trifluorotoluene	75	X	77 - 123						
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
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						
a,a,a-Trifluorotoluene	76	X	77 - 123						

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	373	D X	77 - 123				04/04/17 13:56	04/07/17 02:35	20

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	83		77 - 123				04/04/17 13:56	04/07/17 03:00	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	74	X	77 - 123				04/04/17 13:56	04/07/17 03:25	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	82		77 - 123				04/04/17 13:56	04/07/17 04:15	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	80		77 - 123				04/04/17 13:56	04/07/17 04:40	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	95	D	77 - 123				04/04/17 13:56	04/07/17 05:05	5

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	91		77 - 123				04/04/17 13:56	04/11/17 12:16	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	97		77 - 123				04/04/17 13:56	04/11/17 12:41	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	205	D X	77 - 123				04/04/17 13:56	04/07/17 06:19	20

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	116	D	77 - 123				04/04/17 13:56	04/07/17 06:44	5

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	525	D X	77 - 123				04/04/17 13:56	04/07/17 07:09	20

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	132	D X	77 - 123				04/04/17 13:56	04/07/17 07:34	5

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	93		77 - 123				04/04/17 13:56	04/07/17 07:59	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	114	D	77 - 123				04/05/17 11:26	04/07/17 14:30	10

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)	67		49 - 115				04/04/17 12:45	04/05/17 23:37	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)	92		49 - 115				04/04/17 12:45	04/06/17 00:01	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)	96		49 - 115				04/04/17 12:45	04/06/17 00:26	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)	59		49 - 115				04/04/17 12:45	04/06/17 00:50	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)	101		49 - 115				04/04/17 12:45	04/06/17 01:15	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)	75		49 - 115				04/04/17 12:45	04/06/17 01:40	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)	1217	X D	49 - 115				04/04/17 12:45	04/06/17 20:49	10

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)	48	X	49 - 115				04/04/17 12:45	04/06/17 02:28	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)	62		49 - 115				04/05/17 09:56	04/10/17 14:31	2

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)	200	X	49 - 115				04/05/17 09:56	04/10/17 14:59	2

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)	72		49 - 115				04/05/17 09:56	04/07/17 17:51	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)	150	D X	49 - 115				04/05/17 09:56	04/10/17 15:28	5

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)	274	D X	49 - 115				04/05/17 09:56	04/10/17 15:57	5

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)	148	D X	49 - 115				04/05/17 09:56	04/10/17 16:25	5

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)	149	X	49 - 115				04/05/17 09:56	04/07/17 20:47	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)	33	X D	49 - 115				04/05/17 09:56	04/14/17 18:11	10

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)	91		49 - 115				04/05/17 09:56	04/07/17 21:45	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)	153	X	49 - 115				04/05/17 09:56	04/07/17 22:13	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)	154	X	49 - 115				04/05/17 09:56	04/07/17 22:42	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)	179	D X	49 - 115				04/05/17 09:56	04/10/17 18:19	5

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-DUP2	112 D
280-95393-42	RC4-SC-77	89
280-95393-43	RC4-SC-78	74 X
280-95393-44	RC4-SC-79	508 D X
280-95393-45	RC4-SC-80	75 X
280-95393-46	RC4-SC-DUP3	76 X
280-95393-47	RC4-SC-81	373 D X
280-95393-48	RC4-SC-82	83
280-95393-49	RC4-SC-83	74 X
280-95393-50	RC4-SC-84	82
280-95393-51	RC4-SC-85	80
280-95393-52	RC4-SC-86	95 D
280-95393-53	RC4-SC-87	91
280-95393-54	RC4-SC-DUP4	97
280-95393-55	RC4-SC-88	205 D X
280-95393-56	RC4-SC-89	116 D
280-95393-57	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 MS	RC4-SC-92	79
280-95393-59 MSD	RC4-SC-92	91
280-95393-60	RC4-SC-93	114 D
LCS 280-368018/2-A	Lab Control Sample	88
LCS 280-368170/2-A	Lab Control Sample	93
MB 280-368018/1-A	Method Blank	95
MB 280-368170/1-A	Method Blank	87

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-DUP2	67
280-95393-42	RC4-SC-77	92
280-95393-43	RC4-SC-78	96
280-95393-44	RC4-SC-79	59
280-95393-45	RC4-SC-80	101
280-95393-46	RC4-SC-DUP3	75
280-95393-47	RC4-SC-81	1217 X D
280-95393-48	RC4-SC-82	48 X
280-95393-49	RC4-SC-83	62
280-95393-50	RC4-SC-84	200 X
280-95393-51	RC4-SC-85	72
280-95393-52	RC4-SC-86	150 D X
280-95393-53	RC4-SC-87	274 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-DUP4	148 D X					
280-95393-55	RC4-SC-88	149 X					
280-95393-56	RC4-SC-89	33 X D					
280-95393-57	RC4-SC-90	91					
280-95393-58	RC4-SC-91	153 X					
280-95393-59	RC4-SC-92	154 X					
280-95393-59 MS	RC4-SC-92	249 X					
280-95393-59 MSD	RC4-SC-92	132 X					
280-95393-60	RC4-SC-93	179 D X					
LCS 280-367989/2-A	Lab Control Sample	111					
LCS 280-368129/2-A	Lab Control Sample	83					
MB 280-367989/1-A	Method Blank	192 X					
MB 280-368129/1-A	Method Blank	86					

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-A

Matrix: Solid

Analysis Batch: 368624

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 368018

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 13:56	04/06/17 22:51	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	95		77 - 123				04/04/17 13:56	04/06/17 22:51	1

Lab Sample ID: LCS 280-368018/2-A

Matrix: Solid

Analysis Batch: 368624

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 368018

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
GRO (C6-C10)	5.50	5.84		mg/Kg		106	85 - 153
Surrogate	%Recovery	LCS Qualifier	Limits				
a,a,a-Trifluorotoluene	88		77 - 123				

Lab Sample ID: 280-95393-59 MS

Matrix: Solid

Analysis Batch: 368624

Client Sample ID: RC4-SC-92

Prep Type: Total/NA

Prep Batch: 368018

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
GRO (C6-C10)	32	F2	6.79	25.0	4	mg/Kg	✖	-104	85 - 153
Surrogate	%Recovery	MS Qualifier	Limits						
a,a,a-Trifluorotoluene	79		77 - 123						

Lab Sample ID: 280-95393-59 MSD

Matrix: Solid

Analysis Batch: 368624

Client Sample ID: RC4-SC-92

Prep Type: Total/NA

Prep Batch: 368018

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
GRO (C6-C10)	32	F2	6.68	41.2	4 F2	mg/Kg	✖	138	85 - 153	49	30
Surrogate	%Recovery	MSD Qualifier	Limits								
a,a,a-Trifluorotoluene	91		77 - 123								

Lab Sample ID: MB 280-368170/1-A

Matrix: Solid

Analysis Batch: 368498

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 368170

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.2	0.33	mg/Kg		04/05/17 11:26	04/07/17 13:39	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	87		77 - 123				04/05/17 11:26	04/07/17 13:39	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-A

Matrix: Solid

Analysis Batch: 368498

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 368170

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
GRO (C6-C10)	5.50	6.05		mg/Kg		110	85 - 153
Surrogate	%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 280-367989/1-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
DRO (C10-C28)	ND		4.0	0.68	mg/Kg		04/04/17 12:45	04/05/17 16:39	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	192	X	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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
DRO (C10-C28)	66.7	61.1		mg/Kg		92	53 - 115
Surrogate	%Recovery	LCS Qualifier	Limits				
o-Terphenyl (Surr)	111		49 - 115				

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	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	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	86		49 - 115				04/05/17 09:56	04/07/17 15:54	1

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	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 280-368129/2-A
Matrix: Solid
Analysis Batch: 368506

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 368129

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
<i>o</i> -Terphenyl (Surr)	83		49 - 115

Lab Sample ID: 280-95393-59 MS
Matrix: Solid
Analysis Batch: 368506

Client Sample ID: RC4-SC-92
Prep Type: Total/NA
Prep Batch: 368129
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	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)	249	X	49 - 115						

Lab Sample ID: 280-95393-59 MSD
Matrix: Solid
Analysis Batch: 368506

Client Sample ID: RC4-SC-92
Prep Type: Total/NA
Prep Batch: 368129
%Rec. RPD

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	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	49 - 115								

Method: Moisture - Percent Moisture

Lab Sample ID: 280-95393-57 DU
Matrix: Solid
Analysis Batch: 367692

Client Sample ID: RC4-SC-90
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Percent Moisture	16.4		16.2		%		1	20
Percent Solids	83.6		83.8		%		0.2	20

QC Association Summary

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

TestAmerica Job ID: 280-95393-3

GC VOA

Prep Batch: 368018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-41	RC4-SC-DUP2	Total/NA	Solid	5035	
280-95393-42	RC4-SC-77	Total/NA	Solid	5035	
280-95393-43	RC4-SC-78	Total/NA	Solid	5035	
280-95393-44	RC4-SC-79	Total/NA	Solid	5035	
280-95393-45	RC4-SC-80	Total/NA	Solid	5035	
280-95393-46	RC4-SC-DUP3	Total/NA	Solid	5035	
280-95393-47	RC4-SC-81	Total/NA	Solid	5035	
280-95393-48	RC4-SC-82	Total/NA	Solid	5035	
280-95393-49	RC4-SC-83	Total/NA	Solid	5035	
280-95393-50	RC4-SC-84	Total/NA	Solid	5035	
280-95393-51	RC4-SC-85	Total/NA	Solid	5035	
280-95393-52	RC4-SC-86	Total/NA	Solid	5035	
280-95393-53	RC4-SC-87	Total/NA	Solid	5035	
280-95393-54	RC4-SC-DUP4	Total/NA	Solid	5035	
280-95393-55	RC4-SC-88	Total/NA	Solid	5035	
280-95393-56	RC4-SC-89	Total/NA	Solid	5035	
280-95393-57	RC4-SC-90	Total/NA	Solid	5035	
280-95393-58	RC4-SC-91	Total/NA	Solid	5035	
280-95393-59	RC4-SC-92	Total/NA	Solid	5035	
MB 280-368018/1-A	Method Blank	Total/NA	Solid	5035	
LCS 280-368018/2-A	Lab Control Sample	Total/NA	Solid	5035	
280-95393-59 MS	RC4-SC-92	Total/NA	Solid	5035	
280-95393-59 MSD	RC4-SC-92	Total/NA	Solid	5035	

Prep Batch: 368170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-60	RC4-SC-93	Total/NA	Solid	5035	
MB 280-368170/1-A	Method Blank	Total/NA	Solid	5035	
LCS 280-368170/2-A	Lab Control Sample	Total/NA	Solid	5035	

Analysis Batch: 368498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-60	RC4-SC-93	Total/NA	Solid	8015C	368170
MB 280-368170/1-A	Method Blank	Total/NA	Solid	8015C	368170
LCS 280-368170/2-A	Lab Control Sample	Total/NA	Solid	8015C	368170

Analysis Batch: 368624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-41	RC4-SC-DUP2	Total/NA	Solid	8015C	368018
280-95393-42	RC4-SC-77	Total/NA	Solid	8015C	368018
280-95393-43	RC4-SC-78	Total/NA	Solid	8015C	368018
280-95393-44	RC4-SC-79	Total/NA	Solid	8015C	368018
280-95393-45	RC4-SC-80	Total/NA	Solid	8015C	368018
280-95393-46	RC4-SC-DUP3	Total/NA	Solid	8015C	368018
280-95393-47	RC4-SC-81	Total/NA	Solid	8015C	368018
280-95393-48	RC4-SC-82	Total/NA	Solid	8015C	368018
280-95393-49	RC4-SC-83	Total/NA	Solid	8015C	368018
280-95393-50	RC4-SC-84	Total/NA	Solid	8015C	368018
280-95393-51	RC4-SC-85	Total/NA	Solid	8015C	368018
280-95393-52	RC4-SC-86	Total/NA	Solid	8015C	368018
280-95393-55	RC4-SC-88	Total/NA	Solid	8015C	368018

TestAmerica Denver

QC Association Summary

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

TestAmerica Job ID: 280-95393-3

GC VOA (Continued)

Analysis Batch: 368624 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-56	RC4-SC-89	Total/NA	Solid	8015C	368018
280-95393-57	RC4-SC-90	Total/NA	Solid	8015C	368018
280-95393-58	RC4-SC-91	Total/NA	Solid	8015C	368018
280-95393-59	RC4-SC-92	Total/NA	Solid	8015C	368018
MB 280-368018/1-A	Method Blank	Total/NA	Solid	8015C	368018
LCS 280-368018/2-A	Lab Control Sample	Total/NA	Solid	8015C	368018
280-95393-59 MS	RC4-SC-92	Total/NA	Solid	8015C	368018
280-95393-59 MSD	RC4-SC-92	Total/NA	Solid	8015C	368018

Analysis Batch: 368872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-53	RC4-SC-87	Total/NA	Solid	8015C	368018
280-95393-54	RC4-SC-DUP4	Total/NA	Solid	8015C	368018

GC Semi VOA

Prep Batch: 367989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-41	RC4-SC-DUP2	Total/NA	Solid	3546	
280-95393-42	RC4-SC-77	Total/NA	Solid	3546	
280-95393-43	RC4-SC-78	Total/NA	Solid	3546	
280-95393-44	RC4-SC-79	Total/NA	Solid	3546	
280-95393-45	RC4-SC-80	Total/NA	Solid	3546	
280-95393-46	RC4-SC-DUP3	Total/NA	Solid	3546	
280-95393-47	RC4-SC-81	Total/NA	Solid	3546	
280-95393-48	RC4-SC-82	Total/NA	Solid	3546	
MB 280-367989/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-367989/2-A	Lab Control Sample	Total/NA	Solid	3546	

Prep Batch: 368129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-49	RC4-SC-83	Total/NA	Solid	3546	
280-95393-50	RC4-SC-84	Total/NA	Solid	3546	
280-95393-51	RC4-SC-85	Total/NA	Solid	3546	
280-95393-52	RC4-SC-86	Total/NA	Solid	3546	
280-95393-53	RC4-SC-87	Total/NA	Solid	3546	
280-95393-54	RC4-SC-DUP4	Total/NA	Solid	3546	
280-95393-55	RC4-SC-88	Total/NA	Solid	3546	
280-95393-56	RC4-SC-89	Total/NA	Solid	3546	
280-95393-57	RC4-SC-90	Total/NA	Solid	3546	
280-95393-58	RC4-SC-91	Total/NA	Solid	3546	
280-95393-59	RC4-SC-92	Total/NA	Solid	3546	
280-95393-60	RC4-SC-93	Total/NA	Solid	3546	
MB 280-368129/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-368129/2-A	Lab Control Sample	Total/NA	Solid	3546	
280-95393-59 MS	RC4-SC-92	Total/NA	Solid	3546	
280-95393-59 MSD	RC4-SC-92	Total/NA	Solid	3546	

TestAmerica Denver

QC Association Summary

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

TestAmerica Job ID: 280-95393-3

GC Semi VOA (Continued)

Analysis Batch: 368183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-41	RC4-SC-DUP2	Total/NA	Solid	8015C	367989
280-95393-42	RC4-SC-77	Total/NA	Solid	8015C	367989
280-95393-43	RC4-SC-78	Total/NA	Solid	8015C	367989
280-95393-44	RC4-SC-79	Total/NA	Solid	8015C	367989
280-95393-45	RC4-SC-80	Total/NA	Solid	8015C	367989
280-95393-46	RC4-SC-DUP3	Total/NA	Solid	8015C	367989
280-95393-48	RC4-SC-82	Total/NA	Solid	8015C	367989
MB 280-367989/1-A	Method Blank	Total/NA	Solid	8015C	367989
LCS 280-367989/2-A	Lab Control Sample	Total/NA	Solid	8015C	367989

Analysis Batch: 368348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-47	RC4-SC-81	Total/NA	Solid	8015C	367989

Analysis Batch: 368506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-51	RC4-SC-85	Total/NA	Solid	8015C	368129
280-95393-55	RC4-SC-88	Total/NA	Solid	8015C	368129
280-95393-57	RC4-SC-90	Total/NA	Solid	8015C	368129
280-95393-58	RC4-SC-91	Total/NA	Solid	8015C	368129
280-95393-59	RC4-SC-92	Total/NA	Solid	8015C	368129
MB 280-368129/1-A	Method Blank	Total/NA	Solid	8015C	368129
LCS 280-368129/2-A	Lab Control Sample	Total/NA	Solid	8015C	368129
280-95393-59 MS	RC4-SC-92	Total/NA	Solid	8015C	368129
280-95393-59 MSD	RC4-SC-92	Total/NA	Solid	8015C	368129

Analysis Batch: 368630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-49	RC4-SC-83	Total/NA	Solid	8015C	368129
280-95393-50	RC4-SC-84	Total/NA	Solid	8015C	368129
280-95393-52	RC4-SC-86	Total/NA	Solid	8015C	368129
280-95393-53	RC4-SC-87	Total/NA	Solid	8015C	368129
280-95393-54	RC4-SC-DUP4	Total/NA	Solid	8015C	368129
280-95393-60	RC4-SC-93	Total/NA	Solid	8015C	368129

Analysis Batch: 369454

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-56	RC4-SC-89	Total/NA	Solid	8015C	368129

General Chemistry

Analysis Batch: 367692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-41	RC4-SC-DUP2	Total/NA	Solid	Moisture	
280-95393-42	RC4-SC-77	Total/NA	Solid	Moisture	
280-95393-43	RC4-SC-78	Total/NA	Solid	Moisture	
280-95393-44	RC4-SC-79	Total/NA	Solid	Moisture	
280-95393-45	RC4-SC-80	Total/NA	Solid	Moisture	
280-95393-46	RC4-SC-DUP3	Total/NA	Solid	Moisture	
280-95393-47	RC4-SC-81	Total/NA	Solid	Moisture	

TestAmerica Denver

QC Association Summary

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

TestAmerica Job ID: 280-95393-3

General Chemistry (Continued)

Analysis Batch: 367692 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-48	RC4-SC-82	Total/NA	Solid	Moisture	
280-95393-49	RC4-SC-83	Total/NA	Solid	Moisture	
280-95393-50	RC4-SC-84	Total/NA	Solid	Moisture	
280-95393-51	RC4-SC-85	Total/NA	Solid	Moisture	
280-95393-52	RC4-SC-86	Total/NA	Solid	Moisture	
280-95393-53	RC4-SC-87	Total/NA	Solid	Moisture	
280-95393-54	RC4-SC-DUP4	Total/NA	Solid	Moisture	
280-95393-55	RC4-SC-88	Total/NA	Solid	Moisture	
280-95393-56	RC4-SC-89	Total/NA	Solid	Moisture	
280-95393-57	RC4-SC-90	Total/NA	Solid	Moisture	
280-95393-58	RC4-SC-91	Total/NA	Solid	Moisture	
280-95393-59	RC4-SC-92	Total/NA	Solid	Moisture	
280-95393-60	RC4-SC-93	Total/NA	Solid	Moisture	
280-95393-57 DU	RC4-SC-90	Total/NA	Solid	Moisture	

Lab Chronicle

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

TestAmerica Job ID: 280-95393-3

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

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-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

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	368018	04/04/17 13:56	KDK	TAL DEN
Total/NA	Analysis	8015C		5	0.1 mL	5 mL	368624	04/07/17 00:06	KDK	TAL DEN
Total/NA	Prep	3546			30.2 g	1 mL	367989	04/04/17 12:45	JRA	TAL DEN
Total/NA	Analysis	8015C		1			368183	04/05/17 23:37	TEM	TAL DEN

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

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-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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.23 g	5 mL	368018	04/04/17 13:56	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368624	04/07/17 00:31	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	04/06/17 00:01	TEM	TAL DEN

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

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-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

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	368018	04/04/17 13:56	KDK	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-95393-3

Client Sample ID: RC4-SC-78

Lab Sample ID: 280-95393-43

Date Collected: 03/30/17 13:25

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 79.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368624	04/07/17 00:56	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	04/06/17 00:26	TEM	TAL DEN

Client Sample ID: RC4-SC-79

Lab Sample ID: 280-95393-44

Date Collected: 03/30/17 13:30

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-79

Lab Sample ID: 280-95393-44

Date Collected: 03/30/17 13:30

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			5.08 g	5 mL	368018	04/04/17 13:56	KDK	TAL DEN
Total/NA	Analysis	8015C		20	0.1 mL	5 mL	368624	04/07/17 01:21	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	04/06/17 00:50	TEM	TAL DEN

Client Sample ID: RC4-SC-80

Lab Sample ID: 280-95393-45

Date Collected: 03/30/17 13:35

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-80

Lab Sample ID: 280-95393-45

Date Collected: 03/30/17 13:35

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 74.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.11 g	5 mL	368018	04/04/17 13:56	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368624	04/07/17 01:46	KDK	TAL DEN
Total/NA	Prep	3546			30.8 g	1 mL	367989	04/04/17 12:45	JRA	TAL DEN
Total/NA	Analysis	8015C		1			368183	04/06/17 01:15	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-95393-3

Client Sample ID: RC4-SC-DUP3

Lab Sample ID: 280-95393-46

Date Collected: 03/30/17 13:35

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-DUP3

Lab Sample ID: 280-95393-46

Date Collected: 03/30/17 13:35

Matrix: Solid

Date Received: 03/31/17 16:55

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	5035			5.06 g	5 mL	368018	04/04/17 13:56	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368624	04/07/17 02:11	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	04/06/17 01:40	TEM	TAL DEN

Client Sample ID: RC4-SC-81

Lab Sample ID: 280-95393-47

Date Collected: 03/30/17 14:50

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-81

Lab Sample ID: 280-95393-47

Date Collected: 03/30/17 14:50

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 87.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.77 g	5 mL	368018	04/04/17 13:56	KDK	TAL DEN
Total/NA	Analysis	8015C		20	0.1 mL	5 mL	368624	04/07/17 02:35	KDK	TAL DEN
Total/NA	Prep	3546			30.8 g	1 mL	367989	04/04/17 12:45	JRA	TAL DEN
Total/NA	Analysis	8015C		10			368348	04/06/17 20:49	TEM	TAL DEN

Client Sample ID: RC4-SC-82

Lab Sample ID: 280-95393-48

Date Collected: 03/30/17 14:55

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-82

Lab Sample ID: 280-95393-48

Date Collected: 03/30/17 14:55

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 83.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.86 g	5 mL	368018	04/04/17 13:56	KDK	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-95393-3

Client Sample ID: RC4-SC-82

Lab Sample ID: 280-95393-48

Date Collected: 03/30/17 14:55

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 83.4

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	368624	04/07/17 03:00	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	04/06/17 02:28	TEM	TAL DEN

Client Sample ID: RC4-SC-83

Lab Sample ID: 280-95393-49

Date Collected: 03/30/17 15:00

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-83

Lab Sample ID: 280-95393-49

Date Collected: 03/30/17 15:00

Matrix: Solid

Date Received: 03/31/17 16:55

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	5035			4.83 g	5 mL	368018	04/04/17 13:56	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368624	04/07/17 03:25	KDK	TAL DEN
Total/NA	Prep	3546			30.3 g	1 mL	368129	04/05/17 09:56	JDW	TAL DEN
Total/NA	Analysis	8015C		2			368630	04/10/17 14:31	TEM	TAL DEN

Client Sample ID: RC4-SC-84

Lab Sample ID: 280-95393-50

Date Collected: 03/30/17 15:05

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-84

Lab Sample ID: 280-95393-50

Date Collected: 03/30/17 15:05

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			5.24 g	5 mL	368018	04/04/17 13:56	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368624	04/07/17 04:15	KDK	TAL DEN
Total/NA	Prep	3546			30.7 g	1 mL	368129	04/05/17 09:56	JDW	TAL DEN
Total/NA	Analysis	8015C		2			368630	04/10/17 14:59	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-95393-3

Client Sample ID: RC4-SC-85

Lab Sample ID: 280-95393-51

Date Collected: 03/30/17 15:10

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-85

Lab Sample ID: 280-95393-51

Date Collected: 03/30/17 15:10

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 81.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	368018	04/04/17 13:56	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368624	04/07/17 04:40	KDK	TAL DEN
Total/NA	Prep	3546			31.5 g	1 mL	368129	04/05/17 09:56	JDW	TAL DEN
Total/NA	Analysis	8015C		1			368506	04/07/17 17:51	TEM	TAL DEN

Client Sample ID: RC4-SC-86

Lab Sample ID: 280-95393-52

Date Collected: 03/30/17 15:15

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-86

Lab Sample ID: 280-95393-52

Date Collected: 03/30/17 15:15

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 84.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.93 g	5 mL	368018	04/04/17 13:56	KDK	TAL DEN
Total/NA	Analysis	8015C		5	0.1 mL	5 mL	368624	04/07/17 05:05	KDK	TAL DEN
Total/NA	Prep	3546			30.1 g	1 mL	368129	04/05/17 09:56	JDW	TAL DEN
Total/NA	Analysis	8015C		5			368630	04/10/17 15:28	TEM	TAL DEN

Client Sample ID: RC4-SC-87

Lab Sample ID: 280-95393-53

Date Collected: 03/30/17 15:20

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-87

Lab Sample ID: 280-95393-53

Date Collected: 03/30/17 15:20

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 86.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	368018	04/04/17 13:56	KDK	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-95393-3

Client Sample ID: RC4-SC-87

Lab Sample ID: 280-95393-53

Date Collected: 03/30/17 15:20

Matrix: Solid

Date Received: 03/31/17 16:55

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	Analysis	8015C		1	0.1 mL	5 mL	368872	04/11/17 12:16	KDK	TAL DEN
Total/NA	Prep	3546			30.0 g	1 mL	368129	04/05/17 09:56	JDW	TAL DEN
Total/NA	Analysis	8015C		5			368630	04/10/17 15:57	TEM	TAL DEN

Client Sample ID: RC4-SC-DUP4

Lab Sample ID: 280-95393-54

Date Collected: 03/30/17 15:20

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-DUP4

Lab Sample ID: 280-95393-54

Date Collected: 03/30/17 15:20

Matrix: Solid

Date Received: 03/31/17 16:55

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	5035			4.78 g	5 mL	368018	04/04/17 13:56	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368872	04/11/17 12:41	KDK	TAL DEN
Total/NA	Prep	3546			31.2 g	1 mL	368129	04/05/17 09:56	JDW	TAL DEN
Total/NA	Analysis	8015C		5			368630	04/10/17 16:25	TEM	TAL DEN

Client Sample ID: RC4-SC-88

Lab Sample ID: 280-95393-55

Date Collected: 03/30/17 15:25

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-88

Lab Sample ID: 280-95393-55

Date Collected: 03/30/17 15:25

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			5.18 g	5 mL	368018	04/04/17 13:56	KDK	TAL DEN
Total/NA	Analysis	8015C		20	0.1 mL	5 mL	368624	04/07/17 06:19	KDK	TAL DEN
Total/NA	Prep	3546			30.8 g	1 mL	368129	04/05/17 09:56	JDW	TAL DEN
Total/NA	Analysis	8015C		1			368506	04/07/17 20:47	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-95393-3

Client Sample ID: RC4-SC-89

Lab Sample ID: 280-95393-56

Date Collected: 03/30/17 15:30

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-89

Lab Sample ID: 280-95393-56

Date Collected: 03/30/17 15:30

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 84.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.21 g	5 mL	368018	04/04/17 13:56	KDK	TAL DEN
Total/NA	Analysis	8015C		5	0.1 mL	5 mL	368624	04/07/17 06:44	KDK	TAL DEN
Total/NA	Prep	3546			31.8 g	1 mL	368129	04/05/17 09:56	JDW	TAL DEN
Total/NA	Analysis	8015C		10			369454	04/14/17 18:11	TEM	TAL DEN

Client Sample ID: RC4-SC-90

Lab Sample ID: 280-95393-57

Date Collected: 03/30/17 15:35

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-90

Lab Sample ID: 280-95393-57

Date Collected: 03/30/17 15:35

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 83.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.07 g	5 mL	368018	04/04/17 13:56	KDK	TAL DEN
Total/NA	Analysis	8015C		20	0.1 mL	5 mL	368624	04/07/17 07:09	KDK	TAL DEN
Total/NA	Prep	3546			33.0 g	1 mL	368129	04/05/17 09:56	JDW	TAL DEN
Total/NA	Analysis	8015C		1			368506	04/07/17 21:45	TEM	TAL DEN

Client Sample ID: RC4-SC-91

Lab Sample ID: 280-95393-58

Date Collected: 03/30/17 15:40

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-91

Lab Sample ID: 280-95393-58

Date Collected: 03/30/17 15:40

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 82.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.07 g	5 mL	368018	04/04/17 13:56	KDK	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-95393-3

Client Sample ID: RC4-SC-91

Lab Sample ID: 280-95393-58

Date Collected: 03/30/17 15:40

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 82.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015C		5	0.1 mL	5 mL	368624	04/07/17 07:34	KDK	TAL DEN
Total/NA	Prep	3546			30.1 g	1 mL	368129	04/05/17 09:56	JDW	TAL DEN
Total/NA	Analysis	8015C		1			368506	04/07/17 22:13	TEM	TAL DEN

Client Sample ID: RC4-SC-92

Lab Sample ID: 280-95393-59

Date Collected: 03/30/17 15:45

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-92

Lab Sample ID: 280-95393-59

Date Collected: 03/30/17 15:45

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			4.81 g	5 mL	368018	04/04/17 13:56	KDK	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368624	04/07/17 07:59	KDK	TAL DEN
Total/NA	Prep	3546			32.9 g	1 mL	368129	04/05/17 09:56	JDW	TAL DEN
Total/NA	Analysis	8015C		1			368506	04/07/17 22:42	TEM	TAL DEN

Client Sample ID: RC4-SC-93

Lab Sample ID: 280-95393-60

Date Collected: 03/30/17 15:50

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-93

Lab Sample ID: 280-95393-60

Date Collected: 03/30/17 15:50

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 86.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.25 g	5 mL	368170	04/05/17 11:26	TEM	TAL DEN
Total/NA	Analysis	8015C		10	0.1 mL	5 mL	368498	04/07/17 14:30	KDK	TAL DEN
Total/NA	Prep	3546			30.7 g	1 mL	368129	04/05/17 09:56	JDW	TAL DEN
Total/NA	Analysis	8015C		5			368630	04/10/17 18:19	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: 280-95393-3

Project/Site: Stantec CV X - 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		2907.01	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	NE LAP	4	E 87667	06-30-17
Georgia	State Program	4	N/A	01-08-18
Illinois	NE LAP	5	200017	04-30-18
Iowa	State Program	7	370	12-01-18 *
Kansas	NE LAP	7	E-10166	04-30-17 *
Louisiana	NE LAP	6	02096	06-30-17
Maine	State Program	1	CO 0002	03-03-19
Minnesota	NE LAP	5	8-999-405	12-31-17 *
Nevada	State Program	9	CO 0026	07-31-17
New Hampshire	NE LAP	1	205310	04-28-17
New Jersey	NE LAP	2	CO 004	06-30-17
New York	NE LAP	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	NE LAP	10	4025	01-08-18
Pennsylvania	NE LAP	3	68-00664	07-31-17
South Carolina	State Program	4	72002001	01-09-17 *
Texas	NE LAP	6	T104704183-16-12	09-30-17
USDA	Federal		P 330-16-00397	12-15-19
Utah	NE LAP	8	CO 00026	07-31-17
Virginia	NE LAP	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


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		COC No:	
2000 South Colorado Blvd., Suite 2-300				Lab Contact: Jamie Ide		Carrier: Courier		1 of 5 Pages	
Denver, CO 80222								Sampler: Stauthamer/Jones	
(303) 758-4058 Phone								For Lab Use Only:	
(303) 758-4828 FAX								Walk-in Client:	
Project Name: CPL-Rangely C-4								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.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	GRO-TEPH 8015C	DRO-TEPH 8015C
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



280-95393 Chain of Custody

Reed 3-31-17 1655 TAD

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	COC No:
Stanlec	Tel/Fax: (303) 250-4718	Lab Contact: Jamie Ide	Carrier: Courier	2 of 5 Pages
2000 South Colorado Blvd., Suite 2-300	Analysis Turnaround Time			Sampler: Stauthamer/Jones
Denver, CO 80222	<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS			For Lab Use Only:
(303) 758-4058 Phone	TAT if different from Below			Walk-in Client:
(303) 758-4828 FAX	ASAP			Lab Sampling:
Project Name: CPL-Rangely C-4	<input checked="" type="checkbox"/> 2 weeks			Job / SDG No.:
Site: CPL Rangely	<input type="checkbox"/> 1 week			
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.	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 P. A. 3-31-17 1655 TAD

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		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		<input checked="" type="checkbox"/> 2 weeks		DRO-TEPH 8015C		Walk-In Client:	
Project Name: CPL-Rangely C-4		<input type="checkbox"/> 1 week				Lab Sampling:	
Site: CPL Rangely		<input type="checkbox"/> 2 days				Job / SDG No.:	
P O # 203720102		<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-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: ☐ BW ☐ 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		Soil				Lab Sampling:	
(303) 758-4828 FAX		2 weeks		Soil				Job / SDG No.:	
Project Name: CPL-Rangely C-4		1 week		Soil					
Site: CPL Rangely		2 days		Soil					
P O # 203720102		1 day		Soil					
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 TAD

Chain of Custody Record

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		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				COC No: 5 of 5 Pages	
Denver, CO 80222		TAT if different from Below				Sampler: Stauthamer/Jones	
(303) 758-4058 Phone		ASAP				For Lab Use Only:	
(303) 758-4828 FAX		<input checked="" type="checkbox"/> 2 weeks				Walk-in Client:	
Project Name: CPL-Rangely C-4		<input type="checkbox"/> 1 week				Lab Sampling:	
Site: CPL Rangely		<input type="checkbox"/> 2 days				Job / SDG No.:	
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	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.

☒ 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

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: Stantec	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 Number: 1

Creator: Pottruff, Reed W

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.	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: 280-95393-4

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

Review your project
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.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

Table of Contents

Cover Page 1

Table of Contents 2

Definitions 3

Case Narrative 4

Detection Summary 6

Method Summary 9

Sample Summary 10

Client Sample Results 11

Surrogate Summary 21

QC Sample Results 23

QC Association 27

Chronicle 31

Certification Summary 39

Chain of Custody 40

Receipt Checklists 45



Definitions/Glossary

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

TestAmerica Job ID: 280-95393-4

Qualifiers

GC 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.
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
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 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
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.
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.

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: 280-95393-4

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

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 samples: RC4-SC-DUP5 (280-95393-64), RC4-SC-DUP6 (280-95393-74). 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.

1 of 6 total containers for samples RC4-SC-97 (280-95393-65), RC4-SC-97 (280-95393-65[MS]) and RC4-SC-97 (280-95393-65[MSD]) was received empty. The laboratory will perform the requested analyses with the sample volume received, as sufficient volume remains. 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, 280-95393-2, 280-95393-3, 280-95393-5). This SDG includes samples 61-80 listed on the chain of custody.

GASOLINE RANGE ORGANICS (GRO)

a,a,a-Trifluorotoluene failed the surrogate recovery criteria for RC4-SC-97 (280-95393-65), RC4-SC-97MS (280-95393-65MS), RC4-SC-101 (280-95393-69), RC4-SC-102 (280-95393-70), RC4-SC-109 (280-95393-78), RC4-SC-110 (280-95393-79), and RC4-SC-111 (280-95393-80). 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.

a,a,a-Trifluorotoluene failed the surrogate recovery criteria high for RC4-SC-94 (280-95393-61), RC4-SC-96 (280-95393-63), RC4-SC-DUP5 (280-95393-64), RC4-SC-99 (280-95393-67), RC4-SC-100 (280-95393-68). Evidence of matrix interference is present; therefore, corrective action was not performed.

GRO (C6-C10) failed the recovery criteria for the MS/MSD of sample RC4-SC-97 (280-95393-65). Additionally, GRO (C6-C10) exceeded the RPD limit. The associated LCS was in control; therefore, corrective action was not performed.

GRO (C6-C10) failed the recovery criteria for the MS of sample RC4-SC-106 (280-95393-75). Additionally, GRO (C6-C10) exceeded the RPD limit. The associated LCS was in control; therefore, corrective action was not performed.

Samples RC4-SC-97 (280-95393-65)[5X], RC4-SC-98 (280-95393-66)[5X], RC4-SC-99 (280-95393-67)[2X], RC4-SC-100 (280-95393-68)[2X], RC4-SC-101 (280-95393-69)[10X], RC4-SC-102 (280-95393-70)[5X], RC4-SC-109 (280-95393-78)[5X], RC4-SC-110 (280-95393-79)[20X] and RC4-SC-111 (280-95393-80)[50X] 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: 280-95393-4

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 was performed due to sample matrix: RC4-SC-99 (280-95393-67). The sample was in standing water.

The following sample could not be thoroughly homogenized before sub-sampling was performed due to sample matrix: RC4-SC-95 (280-95393-62) and RC4-SC-100 (280-95393-68). The sample was 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-99 (280-95393-67). After the extraction, the extracts from both vessels were combined and concentrated. This was done due to the sample matrix was especially wet; sample aliquot could not fit in one tube with sufficient room for solvent.

o-Terphenyl failed the surrogate recovery criteria for RC4-SC-94 (280-95393-61), RC4-SC-97 (280-95393-65), RC4-SC-105 (280-95393-73), RC4-SC-110 (280-95393-79) and RC4-SC-111 (280-95393-80). 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 for RC4-SC-95 (280-95393-62), RC4-SC-98 (280-95393-66), RC4-SC-101 (280-95393-69), and RC4-SC-DUP5 (280-95393-64). Evidence of matrix interference is present; therefore, corrective action was not performed.

DRO (C10-C28) and surrogate o-Terphenyl failed the recovery criteria for the MS/MSD of sample RC4-SC-97 (280-95393-65). Additionally, DRO (C10-C28) exceeded the RPD limit. The associated LCS was in control; therefore, corrective action was not performed.

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.

DRO (C10-C28) failed the recovery criteria low for the MSD of sample RC4-SC-106 (280-95393-75). The associated LCS was in control; therefore, corrective action was not performed.

Samples RC4-SC-94 (280-95393-61)[5X], RC4-SC-95 (280-95393-62)[2X], RC4-SC-96 (280-95393-63)[2X], RC4-SC-DUP5 (280-95393-64)[2X], RC4-SC-97 (280-95393-65)[5X], RC4-SC-103 (280-95393-71)[2X], RC4-SC-105 (280-95393-73)[5X], RC4-SC-109 (280-95393-78)[2X], RC4-SC-110 (280-95393-79)[10X] and RC4-SC-111 (280-95393-80)[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.

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-94

Lab Sample ID: 280-95393-61

Analyte	Result	Qualifier	RL	MDL	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-95

Lab Sample ID: 280-95393-62

Analyte	Result	Qualifier	RL	MDL	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-96

Lab Sample ID: 280-95393-63

Analyte	Result	Qualifier	RL	MDL	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-DUP5

Lab Sample ID: 280-95393-64

Analyte	Result	Qualifier	RL	MDL	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-97

Lab Sample ID: 280-95393-65

Analyte	Result	Qualifier	RL	MDL	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-98

Lab Sample ID: 280-95393-66

Analyte	Result	Qualifier	RL	MDL	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-99

Lab Sample ID: 280-95393-67

Analyte	Result	Qualifier	RL	MDL	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-100

Lab Sample ID: 280-95393-68

Analyte	Result	Qualifier	RL	MDL	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-101

Lab Sample ID: 280-95393-69

Analyte	Result	Qualifier	RL	MDL	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-102

Lab Sample ID: 280-95393-70

Analyte	Result	Qualifier	RL	MDL	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-103

Lab Sample ID: 280-95393-71

Analyte	Result	Qualifier	RL	MDL	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-104

Lab Sample ID: 280-95393-72

Analyte	Result	Qualifier	RL	MDL	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-105

Lab Sample ID: 280-95393-73

Analyte	Result	Qualifier	RL	MDL	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-DUP6

Lab Sample ID: 280-95393-74

Analyte	Result	Qualifier	RL	MDL	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-106

Lab Sample ID: 280-95393-75

Analyte	Result	Qualifier	RL	MDL	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-107

Lab Sample ID: 280-95393-76

Analyte	Result	Qualifier	RL	MDL	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-108

Lab Sample ID: 280-95393-77

Analyte	Result	Qualifier	RL	MDL	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-109

Lab Sample ID: 280-95393-78

Analyte	Result	Qualifier	RL	MDL	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-110

Lab Sample ID: 280-95393-79

Analyte	Result	Qualifier	RL	MDL	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

Lab Sample ID: 280-95393-80

Analyte	Result	Qualifier	RL	MDL	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: 280-95393-4

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: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95393-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-95393-61	RC4-SC-94	Solid	03/30/17 15:55	03/31/17 16:55
280-95393-62	RC4-SC-95	Solid	03/30/17 16:00	03/31/17 16:55
280-95393-63	RC4-SC-96	Solid	03/30/17 16:05	03/31/17 16:55
280-95393-64	RC4-SC-DUP5	Solid	03/30/17 16:10	03/31/17 16:55
280-95393-65	RC4-SC-97	Solid	03/30/17 16:10	03/31/17 16:55
280-95393-66	RC4-SC-98	Solid	03/30/17 16:15	03/31/17 16:55
280-95393-67	RC4-SC-99	Solid	03/30/17 16:20	03/31/17 16:55
280-95393-68	RC4-SC-100	Solid	03/30/17 16:25	03/31/17 16:55
280-95393-69	RC4-SC-101	Solid	03/30/17 16:30	03/31/17 16:55
280-95393-70	RC4-SC-102	Solid	03/30/17 16:35	03/31/17 16:55
280-95393-71	RC4-SC-103	Solid	03/30/17 16:40	03/31/17 16:55
280-95393-72	RC4-SC-104	Solid	03/30/17 16:45	03/31/17 16:55
280-95393-73	RC4-SC-105	Solid	03/30/17 16:50	03/31/17 16:55
280-95393-74	RC4-SC-DUP6	Solid	03/30/17 16:50	03/31/17 16:55
280-95393-75	RC4-SC-106	Solid	03/30/17 16:55	03/31/17 16:55
280-95393-76	RC4-SC-107	Solid	03/30/17 17:00	03/31/17 16:55
280-95393-77	RC4-SC-108	Solid	03/30/17 17:05	03/31/17 16:55
280-95393-78	RC4-SC-109	Solid	03/30/17 17:10	03/31/17 16:55
280-95393-79	RC4-SC-110	Solid	03/30/17 17:15	03/31/17 16:55
280-95393-80	RC4-SC-111	Solid	03/30/17 17:20	03/31/17 16:55

Client Sample Results

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

TestAmerica Job ID: 280-95393-4

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

Client Sample ID: RC4-SC-94
Date Collected: 03/30/17 15:55
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-61
Matrix: Solid
Percent Solids: 85.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	1.1	J	1.4	0.37	mg/Kg	☼	04/05/17 11:26	04/07/17 14:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	70	X	77 - 123				04/05/17 11:26	04/07/17 14:55	1

Client Sample ID: RC4-SC-95
Date Collected: 03/30/17 16:00
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-62
Matrix: Solid
Percent Solids: 82.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	19		1.4	0.37	mg/Kg	☼	04/05/17 11:26	04/07/17 15:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	91		77 - 123				04/05/17 11:26	04/07/17 15:20	1

Client Sample ID: RC4-SC-96
Date Collected: 03/30/17 16:05
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-63
Matrix: Solid
Percent Solids: 83.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	1.5		1.4	0.37	mg/Kg	☼	04/05/17 11:26	04/07/17 15:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	64	X	77 - 123				04/05/17 11:26	04/07/17 15:45	1

Client Sample ID: RC4-SC-DUP5
Date Collected: 03/30/17 16:10
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-64
Matrix: Solid
Percent Solids: 84.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	16		1.5	0.39	mg/Kg	☼	04/05/17 11:26	04/07/17 16:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	69	X	77 - 123				04/05/17 11:26	04/07/17 16:10	1

Client Sample ID: RC4-SC-97
Date Collected: 03/30/17 16:10
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-65
Matrix: Solid
Percent Solids: 85.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	140	F2	7.0	1.9	mg/Kg	☼	04/05/17 11:26	04/07/17 16:36	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	130	X D	77 - 123				04/05/17 11:26	04/07/17 16:36	5

Client Sample ID: RC4-SC-98
Date Collected: 03/30/17 16:15
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-66
Matrix: Solid
Percent Solids: 86.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	92		6.8	1.8	mg/Kg	☼	04/05/17 11:26	04/07/17 17:52	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	105	D	77 - 123				04/05/17 11:26	04/07/17 17:52	5

TestAmerica Denver

Client Sample Results

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

TestAmerica Job ID: 280-95393-4

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

Client Sample ID: RC4-SC-99
Date Collected: 03/30/17 16:20
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-67
Matrix: Solid
Percent Solids: 77.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	88		3.1	0.83	mg/Kg	☼	04/05/17 11:26	04/07/17 18:42	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	155	X	77 - 123				04/05/17 11:26	04/07/17 18:42	2

Client Sample ID: RC4-SC-100
Date Collected: 03/30/17 16:25
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-68
Matrix: Solid
Percent Solids: 82.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	71		2.8	0.77	mg/Kg	☼	04/05/17 11:26	04/07/17 19:07	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	139	X	77 - 123				04/05/17 11:26	04/07/17 19:07	2

Client Sample ID: RC4-SC-101
Date Collected: 03/30/17 16:30
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-69
Matrix: Solid
Percent Solids: 82.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	420		15	4.0	mg/Kg	☼	04/05/17 11:26	04/07/17 19:32	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	501	X D	77 - 123				04/05/17 11:26	04/07/17 19:32	10

Client Sample ID: RC4-SC-102
Date Collected: 03/30/17 16:35
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-70
Matrix: Solid
Percent Solids: 83.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	190		7.0	1.9	mg/Kg	☼	04/05/17 11:26	04/07/17 19:58	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	242	X D	77 - 123				04/05/17 11:26	04/07/17 19:58	5

Client Sample ID: RC4-SC-103
Date Collected: 03/30/17 16:40
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-71
Matrix: Solid
Percent Solids: 90.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	27		1.3	0.34	mg/Kg	☼	04/05/17 11:26	04/07/17 20:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	79		77 - 123				04/05/17 11:26	04/07/17 20:23	1

Client Sample ID: RC4-SC-104
Date Collected: 03/30/17 16:45
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-72
Matrix: Solid
Percent Solids: 89.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	23		1.3	0.35	mg/Kg	☼	04/05/17 11:26	04/07/17 20:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	79		77 - 123				04/05/17 11:26	04/07/17 20:48	1

TestAmerica Denver

Client Sample Results

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

TestAmerica Job ID: 280-95393-4

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

Client Sample ID: RC4-SC-105

Date Collected: 03/30/17 16:50

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-73

Matrix: Solid

Percent Solids: 91.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	26		1.3	0.35	mg/Kg	☼	04/05/17 11:26	04/07/17 21:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	89		77 - 123	04/05/17 11:26	04/07/17 21:13	1

Client Sample ID: RC4-SC-DUP6

Date Collected: 03/30/17 16:50

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-74

Matrix: Solid

Percent Solids: 91.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	32		1.3	0.35	mg/Kg	☼	04/05/17 11:26	04/07/17 21:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	93		77 - 123	04/05/17 11:26	04/07/17 21:38	1

Client Sample ID: RC4-SC-106

Date Collected: 03/30/17 16:55

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-75

Matrix: Solid

Percent Solids: 91.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	28	F2	1.3	0.36	mg/Kg	☼	04/05/17 11:26	04/07/17 22:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	85		77 - 123	04/05/17 11:26	04/07/17 22:03	1

Client Sample ID: RC4-SC-107

Date Collected: 03/30/17 17:00

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-76

Matrix: Solid

Percent Solids: 88.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	6.9		1.4	0.38	mg/Kg	☼	04/05/17 13:14	04/08/17 00:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	85		77 - 123	04/05/17 13:14	04/08/17 00:32	1

Client Sample ID: RC4-SC-108

Date Collected: 03/30/17 17:05

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-77

Matrix: Solid

Percent Solids: 91.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	26		1.3	0.35	mg/Kg	☼	04/05/17 13:14	04/08/17 00:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	85		77 - 123	04/05/17 13:14	04/08/17 00:56	1

Client Sample ID: RC4-SC-109

Date Collected: 03/30/17 17:10

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-78

Matrix: Solid

Percent Solids: 90.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	160		6.9	1.9	mg/Kg	☼	04/05/17 13:14	04/08/17 01:21	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	154	X D	77 - 123	04/05/17 13:14	04/08/17 01:21	5

TestAmerica Denver

Client Sample Results

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

TestAmerica Job ID: 280-95393-4

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

Client Sample ID: RC4-SC-110
Date Collected: 03/30/17 17:15
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-79
Matrix: Solid
Percent Solids: 89.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	480		26	6.9	mg/Kg	☼	04/05/17 13:14	04/08/17 01:46	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	376	X D	77 - 123				04/05/17 13:14	04/08/17 01:46	20

Client Sample ID: RC4-SC-111
Date Collected: 03/30/17 17:20
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-80
Matrix: Solid
Percent Solids: 89.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	1900		68	19	mg/Kg	☼	04/05/17 13:14	04/08/17 02:11	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	1190	X D	77 - 123				04/05/17 13:14	04/08/17 02:11	50

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

Client Sample ID: RC4-SC-94
Date Collected: 03/30/17 15:55
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-61
Matrix: Solid
Percent Solids: 85.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	2700	B	23	3.9	mg/Kg	☼	04/05/17 09:56	04/10/17 18:47	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	163	D X	49 - 115				04/05/17 09:56	04/10/17 18:47	5

Client Sample ID: RC4-SC-95
Date Collected: 03/30/17 16:00
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-62
Matrix: Solid
Percent Solids: 82.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	1900	B	9.6	1.6	mg/Kg	☼	04/05/17 09:56	04/10/17 19:15	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	127	X	49 - 115				04/05/17 09:56	04/10/17 19:15	2

Client Sample ID: RC4-SC-96
Date Collected: 03/30/17 16:05
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-63
Matrix: Solid
Percent Solids: 83.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	2000	B	8.7	1.5	mg/Kg	☼	04/05/17 09:56	04/10/17 19:43	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	103		49 - 115				04/05/17 09:56	04/10/17 19:43	2

Client Sample ID: RC4-SC-DUP5
Date Collected: 03/30/17 16:10
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-64
Matrix: Solid
Percent Solids: 84.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	1800	B	9.4	1.6	mg/Kg	☼	04/05/17 09:56	04/10/17 20:12	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	129	X	49 - 115				04/05/17 09:56	04/10/17 20:12	2

TestAmerica Denver

Client Sample Results

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

TestAmerica Job ID: 280-95393-4

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

Client Sample ID: RC4-SC-97
Date Collected: 03/30/17 16:10
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-65
Matrix: Solid
Percent Solids: 85.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	2500	B	23	3.9	mg/Kg	☼	04/05/17 09:56	04/10/17 20:40	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	285	D X	49 - 115				04/05/17 09:56	04/10/17 20:40	5

Client Sample ID: RC4-SC-98
Date Collected: 03/30/17 16:15
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-66
Matrix: Solid
Percent Solids: 86.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	1100	B	4.2	0.72	mg/Kg	☼	04/05/17 09:56	04/08/17 04:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	184	X	49 - 115				04/05/17 09:56	04/08/17 04:53	1

Client Sample ID: RC4-SC-99
Date Collected: 03/30/17 16:20
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-67
Matrix: Solid
Percent Solids: 77.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	440	B	5.0	0.85	mg/Kg	☼	04/05/17 09:56	04/08/17 05:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	88		49 - 115				04/05/17 09:56	04/08/17 05:21	1

Client Sample ID: RC4-SC-100
Date Collected: 03/30/17 16:25
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-68
Matrix: Solid
Percent Solids: 82.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	580	B	4.7	0.79	mg/Kg	☼	04/05/17 09:56	04/08/17 05:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	102		49 - 115				04/05/17 09:56	04/08/17 05:50	1

Client Sample ID: RC4-SC-101
Date Collected: 03/30/17 16:30
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-69
Matrix: Solid
Percent Solids: 82.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	380		4.4	0.75	mg/Kg	☼	04/05/17 08:45	04/10/17 19:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	42	X	49 - 115				04/05/17 08:45	04/10/17 19:30	1

Client Sample ID: RC4-SC-102
Date Collected: 03/30/17 16:35
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-70
Matrix: Solid
Percent Solids: 83.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	840		4.7	0.80	mg/Kg	☼	04/05/17 08:45	04/10/17 19:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	66		49 - 115				04/05/17 08:45	04/10/17 19:54	1

TestAmerica Denver

Client Sample Results

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

TestAmerica Job ID: 280-95393-4

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

Client Sample ID: RC4-SC-103

Date Collected: 03/30/17 16:40

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-71

Matrix: Solid

Percent Solids: 90.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	1200		8.8	1.5	mg/Kg	☼	04/05/17 08:45	04/10/17 20:19	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	61		49 - 115	04/05/17 08:45	04/10/17 20:19	2

Client Sample ID: RC4-SC-104

Date Collected: 03/30/17 16:45

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-72

Matrix: Solid

Percent Solids: 89.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	740		4.4	0.75	mg/Kg	☼	04/05/17 08:45	04/10/17 20:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	73		49 - 115	04/05/17 08:45	04/10/17 20:43	1

Client Sample ID: RC4-SC-105

Date Collected: 03/30/17 16:50

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-73

Matrix: Solid

Percent Solids: 91.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	2200		20	3.4	mg/Kg	☼	04/05/17 08:45	04/10/17 21:07	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	48	X D	49 - 115	04/05/17 08:45	04/10/17 21:07	5

Client Sample ID: RC4-SC-DUP6

Date Collected: 03/30/17 16:50

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-74

Matrix: Solid

Percent Solids: 91.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	950		4.2	0.72	mg/Kg	☼	04/05/17 08:45	04/10/17 21:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	58		49 - 115	04/05/17 08:45	04/10/17 21:32	1

Client Sample ID: RC4-SC-106

Date Collected: 03/30/17 16:55

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-75

Matrix: Solid

Percent Solids: 91.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	500		4.3	0.74	mg/Kg	☼	04/05/17 08:45	04/10/17 21:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	83		49 - 115	04/05/17 08:45	04/10/17 21:56	1

Client Sample ID: RC4-SC-107

Date Collected: 03/30/17 17:00

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-76

Matrix: Solid

Percent Solids: 88.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	270		4.2	0.70	mg/Kg	☼	04/05/17 08:45	04/10/17 23:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	89		49 - 115	04/05/17 08:45	04/10/17 23:58	1

TestAmerica Denver

Client Sample Results

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

TestAmerica Job ID: 280-95393-4

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

Client Sample ID: RC4-SC-108
Date Collected: 03/30/17 17:05
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-77
Matrix: Solid
Percent Solids: 91.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	740		4.3	0.74	mg/Kg	☼	04/05/17 08:45	04/11/17 00:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	74		49 - 115				04/05/17 08:45	04/11/17 00:23	1

Client Sample ID: RC4-SC-109
Date Collected: 03/30/17 17:10
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-78
Matrix: Solid
Percent Solids: 90.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	1600		8.8	1.5	mg/Kg	☼	04/05/17 08:45	04/11/17 00:47	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	60		49 - 115				04/05/17 08:45	04/11/17 00:47	2

Client Sample ID: RC4-SC-110
Date Collected: 03/30/17 17:15
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-79
Matrix: Solid
Percent Solids: 89.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	7600		43	7.3	mg/Kg	☼	04/05/17 08:45	04/11/17 01:12	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	29	D X	49 - 115				04/05/17 08:45	04/11/17 01:12	10

Client Sample ID: RC4-SC-111
Date Collected: 03/30/17 17:20
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-80
Matrix: Solid
Percent Solids: 89.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	12000		88	15	mg/Kg	☼	04/05/17 08:45	04/11/17 01:36	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	1240	D X	49 - 115				04/05/17 08:45	04/11/17 01:36	20

General Chemistry

Client Sample ID: RC4-SC-94
Date Collected: 03/30/17 15:55
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-61
Matrix: Solid
Percent Solids: 85.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.1		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	85.9		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-95
Date Collected: 03/30/17 16:00
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-62
Matrix: Solid
Percent Solids: 82.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.8		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	82.2		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: 280-95393-4

General Chemistry

Client Sample ID: RC4-SC-96
Date Collected: 03/30/17 16:05
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-63
Matrix: Solid
Percent Solids: 83.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.5		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	83.5		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-DUP5
Date Collected: 03/30/17 16:10
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-64
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	%			04/07/17 11:08	1
Percent Solids	84.1		0.1	0.1	%			04/07/17 11:08	1

Client Sample ID: RC4-SC-97
Date Collected: 03/30/17 16:10
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-65
Matrix: Solid
Percent Solids: 85.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.3		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	85.7		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-98
Date Collected: 03/30/17 16:15
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-66
Matrix: Solid
Percent Solids: 86.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.1		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	86.9		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-99
Date Collected: 03/30/17 16:20
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-67
Matrix: Solid
Percent Solids: 77.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22.5		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	77.5		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-100
Date Collected: 03/30/17 16:25
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-68
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	%			04/01/17 16:46	1
Percent Solids	82.7		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-101
Date Collected: 03/30/17 16:30
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-69
Matrix: Solid
Percent Solids: 82.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.8		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	82.2		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-102
Date Collected: 03/30/17 16:35
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-70
Matrix: Solid
Percent Solids: 83.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.3		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	83.7		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: 280-95393-4

General Chemistry

Client Sample ID: RC4-SC-103
Date Collected: 03/30/17 16:40
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-71
Matrix: Solid
Percent Solids: 90.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.4		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	90.6		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-104
Date Collected: 03/30/17 16:45
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-72
Matrix: Solid
Percent Solids: 89.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.6		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	89.4		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-105
Date Collected: 03/30/17 16:50
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-73
Matrix: Solid
Percent Solids: 91.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.7		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	91.3		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-DUP6
Date Collected: 03/30/17 16:50
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-74
Matrix: Solid
Percent Solids: 91.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.1		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	91.9		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-106
Date Collected: 03/30/17 16:55
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-75
Matrix: Solid
Percent Solids: 91.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.2		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	91.8		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-107
Date Collected: 03/30/17 17:00
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-76
Matrix: Solid
Percent Solids: 88.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.9		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	88.1		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-108
Date Collected: 03/30/17 17:05
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-77
Matrix: Solid
Percent Solids: 91.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.6		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	91.4		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-109
Date Collected: 03/30/17 17:10
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-78
Matrix: Solid
Percent Solids: 90.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.2		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	90.8		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: 280-95393-4

General Chemistry

Client Sample ID: RC4-SC-110

Date Collected: 03/30/17 17:15

Date Received: 03/31/17 16:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.0		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	89.0		0.1	0.1	%			04/01/17 16:46	1

Lab Sample ID: 280-95393-79

Matrix: Solid

Percent Solids: 89.0

Client Sample ID: RC4-SC-111

Date Collected: 03/30/17 17:20

Date Received: 03/31/17 16:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.1		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	89.9		0.1	0.1	%			04/01/17 16:46	1

Lab Sample ID: 280-95393-80

Matrix: Solid

Percent Solids: 89.9

Surrogate Summary

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

TestAmerica Job ID: 280-95393-4

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)
280-95393-61	RC4-SC-94	70 X
280-95393-62	RC4-SC-95	91
280-95393-63	RC4-SC-96	64 X
280-95393-64	RC4-SC-DUP5	69 X
280-95393-65	RC4-SC-97	130 X D
280-95393-65 MS	RC4-SC-97	131 X D
280-95393-65 MSD	RC4-SC-97	88 D
280-95393-66	RC4-SC-98	105 D
280-95393-67	RC4-SC-99	155 X
280-95393-68	RC4-SC-100	139 X
280-95393-69	RC4-SC-101	501 X D
280-95393-70	RC4-SC-102	242 X D
280-95393-71	RC4-SC-103	79
280-95393-72	RC4-SC-104	79
280-95393-73	RC4-SC-105	89
280-95393-74	RC4-SC-DUP6	93
280-95393-75	RC4-SC-106	85
280-95393-75 MS	RC4-SC-106	90
280-95393-75 MSD	RC4-SC-106	87
280-95393-76	RC4-SC-107	85
280-95393-77	RC4-SC-108	85
280-95393-78	RC4-SC-109	154 X D
280-95393-79	RC4-SC-110	376 X D
280-95393-80	RC4-SC-111	1190 X D
LCS 280-368170/2-A	Lab Control Sample	93
LCS 280-368182/2-A	Lab Control Sample	93
MB 280-368170/1-A	Method Blank	87
MB 280-368182/1-A	Method Blank	92
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)
280-95393-61	RC4-SC-94	163 D X
280-95393-62	RC4-SC-95	127 X
280-95393-63	RC4-SC-96	103
280-95393-64	RC4-SC-DUP5	129 X
280-95393-65	RC4-SC-97	285 D X
280-95393-65 MS	RC4-SC-97	411 X
280-95393-65 MSD	RC4-SC-97	133 X
280-95393-66	RC4-SC-98	184 X
280-95393-67	RC4-SC-99	88
280-95393-68	RC4-SC-100	102
280-95393-69	RC4-SC-101	42 X

TestAmerica Denver

Surrogate Summary

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

TestAmerica Job ID: 280-95393-4

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)					
280-95393-70	RC4-SC-102	66					
280-95393-71	RC4-SC-103	61					
280-95393-72	RC4-SC-104	73					
280-95393-73	RC4-SC-105	48 X D					
280-95393-74	RC4-SC-DUP6	58					
280-95393-75	RC4-SC-106	83					
280-95393-75 MS	RC4-SC-106	85					
280-95393-75 MSD	RC4-SC-106	86					
280-95393-76	RC4-SC-107	89					
280-95393-77	RC4-SC-108	74					
280-95393-78	RC4-SC-109	60					
280-95393-79	RC4-SC-110	29 D X					
280-95393-80	RC4-SC-111	1240 D X					
LCS 280-368100/2-A	Lab Control Sample	110					
LCS 280-368129/2-A	Lab Control Sample	83					
MB 280-368100/1-A	Method Blank	112					
MB 280-368129/1-A	Method Blank	86					

Surrogate Legend

OTPH = o-Terphenyl (Surr)

QC Sample Results

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

TestAmerica Job ID: 280-95393-4

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

Lab Sample ID: MB 280-368170/1-A

Matrix: Solid

Analysis Batch: 368498

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 368170

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	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	87		77 - 123				04/05/17 11:26	04/07/17 13:39	1

Lab Sample ID: LCS 280-368170/2-A

Matrix: Solid

Analysis Batch: 368498

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 368170

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
GRO (C6-C10)	5.50	6.05		mg/Kg		110	85 - 153
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
a,a,a-Trifluorotoluene	93		77 - 123				

Lab Sample ID: 280-95393-65 MS

Matrix: Solid

Analysis Batch: 368498

Client Sample ID: RC4-SC-97

Prep Type: Total/NA

Prep Batch: 368170

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
GRO (C6-C10)	140	F2	6.20	155	4	mg/Kg	☼	174	85 - 153
Surrogate	MS %Recovery	MS Qualifier	Limits						
a,a,a-Trifluorotoluene	131	X D	77 - 123						

Lab Sample ID: 280-95393-65 MSD

Matrix: Solid

Analysis Batch: 368498

Client Sample ID: RC4-SC-97

Prep Type: Total/NA

Prep Batch: 368170

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
GRO (C6-C10)	140	F2	6.49	85.6	4 F2	mg/Kg	☼	-902	85 - 153	58	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
a,a,a-Trifluorotoluene	88	D	77 - 123								

Lab Sample ID: 280-95393-75 MS

Matrix: Solid

Analysis Batch: 368498

Client Sample ID: RC4-SC-106

Prep Type: Total/NA

Prep Batch: 368170

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
GRO (C6-C10)	28	F2	6.04	49.3	4	mg/Kg	☼	359	85 - 153
Surrogate	MS %Recovery	MS Qualifier	Limits						
a,a,a-Trifluorotoluene	90		77 - 123						

TestAmerica Denver

QC Sample Results

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

TestAmerica Job ID: 280-95393-4

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

Lab Sample ID: 280-95393-75 MSD

Matrix: Solid

Analysis Batch: 368498

Client Sample ID: RC4-SC-106

Prep Type: Total/NA

Prep Batch: 368170

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C6-C10)	28	F2	6.03	35.0	4 F2	mg/Kg	✱	122	85 - 153	34	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
a,a,a-Trifluorotoluene	87		77 - 123								

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
GRO (C6-C10)	ND		1.2	0.33	mg/Kg		04/05/17 13:14	04/07/17 23:42	1
Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac			
a,a,a-Trifluorotoluene	92		77 - 123	04/05/17 13:14	04/07/17 23:42	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

			Spike	LCS	LCS					%Rec.	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
GRO (C6-C10)			5.50	5.90		mg/Kg	-	107	85 - 153		
Surrogate	LCS	LCS									
	%Recovery	Qualifier	Limits								
a,a,a-Trifluorotoluene	93		77 - 123								

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

Lab Sample ID: MB 280-368100/1-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
DRO (C10-C28)	ND		4.0	0.68	mg/Kg		04/05/17 08:45	04/10/17 18:41	1
Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac			
o-Terphenyl (Surr)	112		49 - 115	04/05/17 08:45	04/10/17 18:41	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		
DRO (C10-C28)	66.7	63.6		mg/Kg		95	53 - 115		

TestAmerica Denver

QC Sample Results

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

TestAmerica Job ID: 280-95393-4

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

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
<i>o</i> -Terphenyl (Surr)	110		49 - 115

Lab Sample ID: 280-95393-75 MS
Matrix: Solid
Analysis Batch: 368632

Client Sample ID: RC4-SC-106
Prep Type: Total/NA
Prep Batch: 368100

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
DRO (C10-C28)	500		69.8	566	4	mg/Kg	☼	99	56 - 115
Surrogate	MS %Recovery	MS Qualifier	Limits						
<i>o</i> -Terphenyl (Surr)	85		49 - 115						

Lab Sample ID: 280-95393-75 MSD
Matrix: Solid
Analysis Batch: 368632

Client Sample ID: RC4-SC-106
Prep Type: Total/NA
Prep Batch: 368100

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
DRO (C10-C28)	500		71.0	532	4	mg/Kg	☼	50	56 - 115	6	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
<i>o</i> -Terphenyl (Surr)	86		49 - 115								

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	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
<i>o</i> -Terphenyl (Surr)	86		49 - 115				04/05/17 09:56	04/07/17 15:54	1

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	Limits
DRO (C10-C28)	66.7	72.3		mg/Kg		108	53 - 115
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
<i>o</i> -Terphenyl (Surr)	83		49 - 115				

TestAmerica Denver

QC Sample Results

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

TestAmerica Job ID: 280-95393-4

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: RC4-SC-97

Prep Type: Total/NA

Prep Batch: 368129

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
DRO (C10-C28)	2500	B	77.5	2430	E 4	mg/Kg	☼	-126	56 - 115
Surrogate	MS %Recovery	MS Qualifier	Limits						
o-Terphenyl (Surr)	411	X	49 - 115						

Lab Sample ID: 280-95393-65 MSD

Matrix: Solid

Analysis Batch: 368506

Client Sample ID: RC4-SC-97

Prep Type: Total/NA

Prep Batch: 368129

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
DRO (C10-C28)	2500	B	75.3	3130	E 4 F2	mg/Kg	☼	805	56 - 115	25	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
o-Terphenyl (Surr)	133	X	49 - 115								

Method: Moisture - Percent Moisture

Lab Sample ID: 280-95393-64 DU

Matrix: Solid

Analysis Batch: 368504

Client Sample ID: RC4-SC-DUP5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Percent Moisture	15.9		15.2		%		5	20
Percent Solids	84.1		84.8		%		0.8	20

TestAmerica Denver

QC Association Summary

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

TestAmerica Job ID: 280-95393-4

GC VOA

Prep Batch: 368170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-61	RC4-SC-94	Total/NA	Solid	5035	
280-95393-62	RC4-SC-95	Total/NA	Solid	5035	
280-95393-63	RC4-SC-96	Total/NA	Solid	5035	
280-95393-64	RC4-SC-DUP5	Total/NA	Solid	5035	
280-95393-65	RC4-SC-97	Total/NA	Solid	5035	
280-95393-66	RC4-SC-98	Total/NA	Solid	5035	
280-95393-67	RC4-SC-99	Total/NA	Solid	5035	
280-95393-68	RC4-SC-100	Total/NA	Solid	5035	
280-95393-69	RC4-SC-101	Total/NA	Solid	5035	
280-95393-70	RC4-SC-102	Total/NA	Solid	5035	
280-95393-71	RC4-SC-103	Total/NA	Solid	5035	
280-95393-72	RC4-SC-104	Total/NA	Solid	5035	
280-95393-73	RC4-SC-105	Total/NA	Solid	5035	
280-95393-74	RC4-SC-DUP6	Total/NA	Solid	5035	
280-95393-75	RC4-SC-106	Total/NA	Solid	5035	
MB 280-368170/1-A	Method Blank	Total/NA	Solid	5035	
LCS 280-368170/2-A	Lab Control Sample	Total/NA	Solid	5035	
280-95393-65 MS	RC4-SC-97	Total/NA	Solid	5035	
280-95393-65 MSD	RC4-SC-97	Total/NA	Solid	5035	
280-95393-75 MS	RC4-SC-106	Total/NA	Solid	5035	
280-95393-75 MSD	RC4-SC-106	Total/NA	Solid	5035	

Prep Batch: 368182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-76	RC4-SC-107	Total/NA	Solid	5035	
280-95393-77	RC4-SC-108	Total/NA	Solid	5035	
280-95393-78	RC4-SC-109	Total/NA	Solid	5035	
280-95393-79	RC4-SC-110	Total/NA	Solid	5035	
280-95393-80	RC4-SC-111	Total/NA	Solid	5035	
MB 280-368182/1-A	Method Blank	Total/NA	Solid	5035	
LCS 280-368182/2-A	Lab Control Sample	Total/NA	Solid	5035	

Analysis Batch: 368498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-61	RC4-SC-94	Total/NA	Solid	8015C	368170
280-95393-62	RC4-SC-95	Total/NA	Solid	8015C	368170
280-95393-63	RC4-SC-96	Total/NA	Solid	8015C	368170
280-95393-64	RC4-SC-DUP5	Total/NA	Solid	8015C	368170
280-95393-65	RC4-SC-97	Total/NA	Solid	8015C	368170
280-95393-66	RC4-SC-98	Total/NA	Solid	8015C	368170
280-95393-67	RC4-SC-99	Total/NA	Solid	8015C	368170
280-95393-68	RC4-SC-100	Total/NA	Solid	8015C	368170
280-95393-69	RC4-SC-101	Total/NA	Solid	8015C	368170
280-95393-70	RC4-SC-102	Total/NA	Solid	8015C	368170
280-95393-71	RC4-SC-103	Total/NA	Solid	8015C	368170
280-95393-72	RC4-SC-104	Total/NA	Solid	8015C	368170
280-95393-73	RC4-SC-105	Total/NA	Solid	8015C	368170
280-95393-74	RC4-SC-DUP6	Total/NA	Solid	8015C	368170
280-95393-75	RC4-SC-106	Total/NA	Solid	8015C	368170
MB 280-368170/1-A	Method Blank	Total/NA	Solid	8015C	368170
LCS 280-368170/2-A	Lab Control Sample	Total/NA	Solid	8015C	368170

TestAmerica Denver

QC Association Summary

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

TestAmerica Job ID: 280-95393-4

GC VOA (Continued)

Analysis Batch: 368498 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-65 MS	RC4-SC-97	Total/NA	Solid	8015C	368170
280-95393-65 MSD	RC4-SC-97	Total/NA	Solid	8015C	368170
280-95393-75 MS	RC4-SC-106	Total/NA	Solid	8015C	368170
280-95393-75 MSD	RC4-SC-106	Total/NA	Solid	8015C	368170

Analysis Batch: 368533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-76	RC4-SC-107	Total/NA	Solid	8015C	368182
280-95393-77	RC4-SC-108	Total/NA	Solid	8015C	368182
280-95393-78	RC4-SC-109	Total/NA	Solid	8015C	368182
280-95393-79	RC4-SC-110	Total/NA	Solid	8015C	368182
280-95393-80	RC4-SC-111	Total/NA	Solid	8015C	368182
MB 280-368182/1-A	Method Blank	Total/NA	Solid	8015C	368182
LCS 280-368182/2-A	Lab Control Sample	Total/NA	Solid	8015C	368182

GC Semi VOA

Prep Batch: 368100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-69	RC4-SC-101	Total/NA	Solid	3546	
280-95393-70	RC4-SC-102	Total/NA	Solid	3546	
280-95393-71	RC4-SC-103	Total/NA	Solid	3546	
280-95393-72	RC4-SC-104	Total/NA	Solid	3546	
280-95393-73	RC4-SC-105	Total/NA	Solid	3546	
280-95393-74	RC4-SC-DUP6	Total/NA	Solid	3546	
280-95393-75	RC4-SC-106	Total/NA	Solid	3546	
280-95393-76	RC4-SC-107	Total/NA	Solid	3546	
280-95393-77	RC4-SC-108	Total/NA	Solid	3546	
280-95393-78	RC4-SC-109	Total/NA	Solid	3546	
280-95393-79	RC4-SC-110	Total/NA	Solid	3546	
280-95393-80	RC4-SC-111	Total/NA	Solid	3546	
MB 280-368100/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-368100/2-A	Lab Control Sample	Total/NA	Solid	3546	
280-95393-75 MS	RC4-SC-106	Total/NA	Solid	3546	
280-95393-75 MSD	RC4-SC-106	Total/NA	Solid	3546	

Prep Batch: 368129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-61	RC4-SC-94	Total/NA	Solid	3546	
280-95393-62	RC4-SC-95	Total/NA	Solid	3546	
280-95393-63	RC4-SC-96	Total/NA	Solid	3546	
280-95393-64	RC4-SC-DUP5	Total/NA	Solid	3546	
280-95393-65	RC4-SC-97	Total/NA	Solid	3546	
280-95393-66	RC4-SC-98	Total/NA	Solid	3546	
280-95393-67	RC4-SC-99	Total/NA	Solid	3546	
280-95393-68	RC4-SC-100	Total/NA	Solid	3546	
MB 280-368129/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-368129/2-A	Lab Control Sample	Total/NA	Solid	3546	
280-95393-65 MS	RC4-SC-97	Total/NA	Solid	3546	
280-95393-65 MSD	RC4-SC-97	Total/NA	Solid	3546	

TestAmerica Denver

QC Association Summary

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

TestAmerica Job ID: 280-95393-4

GC Semi VOA (Continued)

Analysis Batch: 368506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-66	RC4-SC-98	Total/NA	Solid	8015C	368129
280-95393-67	RC4-SC-99	Total/NA	Solid	8015C	368129
280-95393-68	RC4-SC-100	Total/NA	Solid	8015C	368129
MB 280-368129/1-A	Method Blank	Total/NA	Solid	8015C	368129
LCS 280-368129/2-A	Lab Control Sample	Total/NA	Solid	8015C	368129
280-95393-65 MS	RC4-SC-97	Total/NA	Solid	8015C	368129
280-95393-65 MSD	RC4-SC-97	Total/NA	Solid	8015C	368129

Analysis Batch: 368630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-61	RC4-SC-94	Total/NA	Solid	8015C	368129
280-95393-62	RC4-SC-95	Total/NA	Solid	8015C	368129
280-95393-63	RC4-SC-96	Total/NA	Solid	8015C	368129
280-95393-64	RC4-SC-DUP5	Total/NA	Solid	8015C	368129
280-95393-65	RC4-SC-97	Total/NA	Solid	8015C	368129

Analysis Batch: 368632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-69	RC4-SC-101	Total/NA	Solid	8015C	368100
280-95393-70	RC4-SC-102	Total/NA	Solid	8015C	368100
280-95393-71	RC4-SC-103	Total/NA	Solid	8015C	368100
280-95393-72	RC4-SC-104	Total/NA	Solid	8015C	368100
280-95393-73	RC4-SC-105	Total/NA	Solid	8015C	368100
280-95393-74	RC4-SC-DUP6	Total/NA	Solid	8015C	368100
280-95393-75	RC4-SC-106	Total/NA	Solid	8015C	368100
280-95393-76	RC4-SC-107	Total/NA	Solid	8015C	368100
280-95393-77	RC4-SC-108	Total/NA	Solid	8015C	368100
280-95393-78	RC4-SC-109	Total/NA	Solid	8015C	368100
280-95393-79	RC4-SC-110	Total/NA	Solid	8015C	368100
280-95393-80	RC4-SC-111	Total/NA	Solid	8015C	368100
MB 280-368100/1-A	Method Blank	Total/NA	Solid	8015C	368100
LCS 280-368100/2-A	Lab Control Sample	Total/NA	Solid	8015C	368100
280-95393-75 MS	RC4-SC-106	Total/NA	Solid	8015C	368100
280-95393-75 MSD	RC4-SC-106	Total/NA	Solid	8015C	368100

General Chemistry

Analysis Batch: 367692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-61	RC4-SC-94	Total/NA	Solid	Moisture	
280-95393-62	RC4-SC-95	Total/NA	Solid	Moisture	
280-95393-63	RC4-SC-96	Total/NA	Solid	Moisture	
280-95393-65	RC4-SC-97	Total/NA	Solid	Moisture	
280-95393-66	RC4-SC-98	Total/NA	Solid	Moisture	
280-95393-67	RC4-SC-99	Total/NA	Solid	Moisture	
280-95393-68	RC4-SC-100	Total/NA	Solid	Moisture	
280-95393-69	RC4-SC-101	Total/NA	Solid	Moisture	
280-95393-70	RC4-SC-102	Total/NA	Solid	Moisture	
280-95393-71	RC4-SC-103	Total/NA	Solid	Moisture	
280-95393-72	RC4-SC-104	Total/NA	Solid	Moisture	

TestAmerica Denver

QC Association Summary

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

TestAmerica Job ID: 280-95393-4

General Chemistry (Continued)

Analysis Batch: 367692 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-73	RC4-SC-105	Total/NA	Solid	Moisture	
280-95393-74	RC4-SC-DUP6	Total/NA	Solid	Moisture	
280-95393-75	RC4-SC-106	Total/NA	Solid	Moisture	
280-95393-76	RC4-SC-107	Total/NA	Solid	Moisture	
280-95393-77	RC4-SC-108	Total/NA	Solid	Moisture	
280-95393-78	RC4-SC-109	Total/NA	Solid	Moisture	
280-95393-79	RC4-SC-110	Total/NA	Solid	Moisture	
280-95393-80	RC4-SC-111	Total/NA	Solid	Moisture	

Analysis Batch: 368504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-64	RC4-SC-DUP5	Total/NA	Solid	Moisture	
280-95393-64 DU	RC4-SC-DUP5	Total/NA	Solid	Moisture	

Lab Chronicle

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

TestAmerica Job ID: 280-95393-4

Client Sample ID: RC4-SC-94

Date Collected: 03/30/17 15:55

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-61

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-94

Date Collected: 03/30/17 15:55

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-61

Matrix: Solid

Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.12 g	5 mL	368170	04/05/17 11:26	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368498	04/07/17 14:55	KDK	TAL DEN
Total/NA	Prep	3546			30.5 g	1 mL	368129	04/05/17 09:56	JDW	TAL DEN
Total/NA	Analysis	8015C		5			368630	04/10/17 18:47	TEM	TAL DEN

Client Sample ID: RC4-SC-95

Date Collected: 03/30/17 16:00

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-62

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-95

Date Collected: 03/30/17 16:00

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-62

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			5.28 g	5 mL	368170	04/05/17 11:26	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368498	04/07/17 15:20	KDK	TAL DEN
Total/NA	Prep	3546			30.3 g	1 mL	368129	04/05/17 09:56	JDW	TAL DEN
Total/NA	Analysis	8015C		2			368630	04/10/17 19:15	TEM	TAL DEN

Client Sample ID: RC4-SC-96

Date Collected: 03/30/17 16:05

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-63

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-96

Date Collected: 03/30/17 16:05

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-63

Matrix: Solid

Percent Solids: 83.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.30 g	5 mL	368170	04/05/17 11:26	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-95393-4

Client Sample ID: RC4-SC-96

Lab Sample ID: 280-95393-63

Date Collected: 03/30/17 16:05

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 83.5

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	368498	04/07/17 15:45	KDK	TAL DEN
Total/NA	Prep	3546			33.0 g	1 mL	368129	04/05/17 09:56	JDW	TAL DEN
Total/NA	Analysis	8015C		2			368630	04/10/17 19:43	TEM	TAL DEN

Client Sample ID: RC4-SC-DUP5

Lab Sample ID: 280-95393-64

Date Collected: 03/30/17 16:10

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			368504	04/07/17 11:08	A1D	TAL DEN

Client Sample ID: RC4-SC-DUP5

Lab Sample ID: 280-95393-64

Date Collected: 03/30/17 16:10

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 84.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.90 g	5 mL	368170	04/05/17 11:26	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368498	04/07/17 16:10	KDK	TAL DEN
Total/NA	Prep	3546			30.4 g	1 mL	368129	04/05/17 09:56	JDW	TAL DEN
Total/NA	Analysis	8015C		2			368630	04/10/17 20:12	TEM	TAL DEN

Client Sample ID: RC4-SC-97

Lab Sample ID: 280-95393-65

Date Collected: 03/30/17 16:10

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-97

Lab Sample ID: 280-95393-65

Date Collected: 03/30/17 16:10

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 85.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	368170	04/05/17 11:26	TEM	TAL DEN
Total/NA	Analysis	8015C		5	0.1 mL	5 mL	368498	04/07/17 16:36	KDK	TAL DEN
Total/NA	Prep	3546			30.2 g	1 mL	368129	04/05/17 09:56	JDW	TAL DEN
Total/NA	Analysis	8015C		5			368630	04/10/17 20:40	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-95393-4

Client Sample ID: RC4-SC-98

Lab Sample ID: 280-95393-66

Date Collected: 03/30/17 16:15

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-98

Lab Sample ID: 280-95393-66

Date Collected: 03/30/17 16:15

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 86.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.06 g	5 mL	368170	04/05/17 11:26	TEM	TAL DEN
Total/NA	Analysis	8015C		5	0.1 mL	5 mL	368498	04/07/17 17:52	KDK	TAL DEN
Total/NA	Prep	3546			32.5 g	1 mL	368129	04/05/17 09:56	JDW	TAL DEN
Total/NA	Analysis	8015C		1			368506	04/08/17 04:53	TEM	TAL DEN

Client Sample ID: RC4-SC-99

Lab Sample ID: 280-95393-67

Date Collected: 03/30/17 16:20

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-99

Lab Sample ID: 280-95393-67

Date Collected: 03/30/17 16:20

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 77.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.06 g	5 mL	368170	04/05/17 11:26	TEM	TAL DEN
Total/NA	Analysis	8015C		2	0.1 mL	5 mL	368498	04/07/17 18:42	KDK	TAL DEN
Total/NA	Prep	3546			30.8 g	1 mL	368129	04/05/17 09:56	JDW	TAL DEN
Total/NA	Analysis	8015C		1			368506	04/08/17 05:21	TEM	TAL DEN

Client Sample ID: RC4-SC-100

Lab Sample ID: 280-95393-68

Date Collected: 03/30/17 16:25

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-100

Lab Sample ID: 280-95393-68

Date Collected: 03/30/17 16:25

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 82.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.12 g	5 mL	368170	04/05/17 11:26	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-95393-4

Client Sample ID: RC4-SC-100

Lab Sample ID: 280-95393-68

Date Collected: 03/30/17 16:25

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 82.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015C		2	0.1 mL	5 mL	368498	04/07/17 19:07	KDK	TAL DEN
Total/NA	Prep	3546			31.1 g	1 mL	368129	04/05/17 09:56	JDW	TAL DEN
Total/NA	Analysis	8015C		1			368506	04/08/17 05:50	TEM	TAL DEN

Client Sample ID: RC4-SC-101

Lab Sample ID: 280-95393-69

Date Collected: 03/30/17 16:30

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-101

Lab Sample ID: 280-95393-69

Date Collected: 03/30/17 16:30

Matrix: Solid

Date Received: 03/31/17 16:55

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			4.98 g	5 mL	368170	04/05/17 11:26	TEM	TAL DEN
Total/NA	Analysis	8015C		10	0.1 mL	5 mL	368498	04/07/17 19:32	KDK	TAL DEN
Total/NA	Prep	3546			33.0 g	1 mL	368100	04/05/17 08:45	JDW	TAL DEN
Total/NA	Analysis	8015C		1			368632	04/10/17 19:30	TEM	TAL DEN

Client Sample ID: RC4-SC-102

Lab Sample ID: 280-95393-70

Date Collected: 03/30/17 16:35

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-102

Lab Sample ID: 280-95393-70

Date Collected: 03/30/17 16:35

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 83.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.15 g	5 mL	368170	04/05/17 11:26	TEM	TAL DEN
Total/NA	Analysis	8015C		5	0.1 mL	5 mL	368498	04/07/17 19:58	KDK	TAL DEN
Total/NA	Prep	3546			30.4 g	1 mL	368100	04/05/17 08:45	JDW	TAL DEN
Total/NA	Analysis	8015C		1			368632	04/10/17 19:54	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-95393-4

Client Sample ID: RC4-SC-103

Lab Sample ID: 280-95393-71

Date Collected: 03/30/17 16:40

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-103

Lab Sample ID: 280-95393-71

Date Collected: 03/30/17 16:40

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 90.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.23 g	5 mL	368170	04/05/17 11:26	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368498	04/07/17 20:23	KDK	TAL DEN
Total/NA	Prep	3546			30.1 g	1 mL	368100	04/05/17 08:45	JDW	TAL DEN
Total/NA	Analysis	8015C		2			368632	04/10/17 20:19	TEM	TAL DEN

Client Sample ID: RC4-SC-104

Lab Sample ID: 280-95393-72

Date Collected: 03/30/17 16:45

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-104

Lab Sample ID: 280-95393-72

Date Collected: 03/30/17 16:45

Matrix: Solid

Date Received: 03/31/17 16:55

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	5035			5.24 g	5 mL	368170	04/05/17 11:26	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368498	04/07/17 20:48	KDK	TAL DEN
Total/NA	Prep	3546			30.5 g	1 mL	368100	04/05/17 08:45	JDW	TAL DEN
Total/NA	Analysis	8015C		1			368632	04/10/17 20:43	TEM	TAL DEN

Client Sample ID: RC4-SC-105

Lab Sample ID: 280-95393-73

Date Collected: 03/30/17 16:50

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-105

Lab Sample ID: 280-95393-73

Date Collected: 03/30/17 16:50

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 91.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.07 g	5 mL	368170	04/05/17 11:26	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-95393-4

Client Sample ID: RC4-SC-105

Lab Sample ID: 280-95393-73

Date Collected: 03/30/17 16:50

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 91.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368498	04/07/17 21:13	KDK	TAL DEN
Total/NA	Prep	3546			33.0 g	1 mL	368100	04/05/17 08:45	JDW	TAL DEN
Total/NA	Analysis	8015C		5			368632	04/10/17 21:07	TEM	TAL DEN

Client Sample ID: RC4-SC-DUP6

Lab Sample ID: 280-95393-74

Date Collected: 03/30/17 16:50

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-DUP6

Lab Sample ID: 280-95393-74

Date Collected: 03/30/17 16:50

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 91.9

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	368170	04/05/17 11:26	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368498	04/07/17 21:38	KDK	TAL DEN
Total/NA	Prep	3546			30.8 g	1 mL	368100	04/05/17 08:45	JDW	TAL DEN
Total/NA	Analysis	8015C		1			368632	04/10/17 21:32	TEM	TAL DEN

Client Sample ID: RC4-SC-106

Lab Sample ID: 280-95393-75

Date Collected: 03/30/17 16:55

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-106

Lab Sample ID: 280-95393-75

Date Collected: 03/30/17 16:55

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 91.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.87 g	5 mL	368170	04/05/17 11:26	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368498	04/07/17 22:03	KDK	TAL DEN
Total/NA	Prep	3546			30.1 g	1 mL	368100	04/05/17 08:45	JDW	TAL DEN
Total/NA	Analysis	8015C		1			368632	04/10/17 21:56	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-95393-4

Client Sample ID: RC4-SC-107

Lab Sample ID: 280-95393-76

Date Collected: 03/30/17 17:00

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-107

Lab Sample ID: 280-95393-76

Date Collected: 03/30/17 17:00

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 88.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.92 g	5 mL	368182	04/05/17 13:14	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368533	04/08/17 00:32	KDK	TAL DEN
Total/NA	Prep	3546			32.8 g	1 mL	368100	04/05/17 08:45	JDW	TAL DEN
Total/NA	Analysis	8015C		1			368632	04/10/17 23:58	TEM	TAL DEN

Client Sample ID: RC4-SC-108

Lab Sample ID: 280-95393-77

Date Collected: 03/30/17 17:05

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-108

Lab Sample ID: 280-95393-77

Date Collected: 03/30/17 17:05

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 91.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	368182	04/05/17 13:14	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368533	04/08/17 00:56	KDK	TAL DEN
Total/NA	Prep	3546			30.2 g	1 mL	368100	04/05/17 08:45	JDW	TAL DEN
Total/NA	Analysis	8015C		1			368632	04/11/17 00:23	TEM	TAL DEN

Client Sample ID: RC4-SC-109

Lab Sample ID: 280-95393-78

Date Collected: 03/30/17 17:10

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-109

Lab Sample ID: 280-95393-78

Date Collected: 03/30/17 17:10

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 90.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.80 g	5 mL	368182	04/05/17 13:14	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-95393-4

Client Sample ID: RC4-SC-109

Lab Sample ID: 280-95393-78

Date Collected: 03/30/17 17:10

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 90.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015C		5	0.1 mL	5 mL	368533	04/08/17 01:21	KDK	TAL DEN
Total/NA	Prep	3546			30.1 g	1 mL	368100	04/05/17 08:45	JDW	TAL DEN
Total/NA	Analysis	8015C		2			368632	04/11/17 00:47	TEM	TAL DEN

Client Sample ID: RC4-SC-110

Lab Sample ID: 280-95393-79

Date Collected: 03/30/17 17:15

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-110

Lab Sample ID: 280-95393-79

Date Collected: 03/30/17 17:15

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 89.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.28 g	5 mL	368182	04/05/17 13:14	TEM	TAL DEN
Total/NA	Analysis	8015C		20	0.1 mL	5 mL	368533	04/08/17 01:46	KDK	TAL DEN
Total/NA	Prep	3546			31.3 g	1 mL	368100	04/05/17 08:45	JDW	TAL DEN
Total/NA	Analysis	8015C		10			368632	04/11/17 01:12	TEM	TAL DEN

Client Sample ID: RC4-SC-111

Lab Sample ID: 280-95393-80

Date Collected: 03/30/17 17:20

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-111

Lab Sample ID: 280-95393-80

Date Collected: 03/30/17 17:20

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 89.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.87 g	5 mL	368182	04/05/17 13:14	TEM	TAL DEN
Total/NA	Analysis	8015C		50	0.1 mL	5 mL	368533	04/08/17 02:11	KDK	TAL DEN
Total/NA	Prep	3546			30.4 g	1 mL	368100	04/05/17 08:45	JDW	TAL DEN
Total/NA	Analysis	8015C		20			368632	04/11/17 01:36	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: 280-95393-4

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

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		COC No:	
2000 South Colorado Blvd., Suite 2-300				Lab Contact: Jamie Ide		Carrier: Courier		1 of 5 Pages	
Denver, CO 80222								Sampler: Stauthamer/Jones	
(303) 758-4058 Phone								For Lab Use Only:	
(303) 758-4828 FAX								Walk-in Client:	
Project Name: CPL-Rangely C-4								Lab Sampling:	
Site: CPL Rangely								Job / SDG No.:	
P O # 203720102									
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sample Specific Notes:		
RC4-SC-38	3/30/2017	1005	G	Soil	2				
RC4-SC-39	3/30/2017	1010	G	Soil	2				
RC4-SC-40	3/30/2017	1015	G	Soil	2				
RC4-SC-41	3/30/2017	1020	G	Soil	2				
RC4-SC-42	3/30/2017	1025	G	Soil	2				
RC4-SC-43	3/30/2017	1030	G	Soil	2				
RC4-SC-44	3/30/2017	1035	G	Soil	2				
RC4-SC-45	3/30/2017	1040	G	Soil	2				
RC4-SC-46	3/30/2017	1045	G	Soil	2				
RC4-SC-47	3/30/2017	1050	G	Soil	2				
RC4-SC-48	3/30/2017	1055	G	Soil	2				
RC4-SC-49	3/30/2017	1100	G	Soil	2				
RC4-SC-50	3/30/2017	1105	G	Soil	2				
RC4-SC-51	3/30/2017	1110	G	Soil	2				
RC4-SC-52	3/30/2017	1115	G	Soil	2				
RC4-SC-53	3/30/2017	1120	G	Soil	2				
RC4-SC-54	3/30/2017	1125	G	Soil	2				
RC4-SC-55	3/30/2017	1130	G	Soil	2				
RC4-SC-56	3/30/2017	1135	G	Soil	2				
RC4-SC-57	3/30/2017	1140	G	Soil	2				
RC4-SC-58	3/30/2017	1145	G	Soil	2				



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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	COC No:
Stanlec	Tel/Fax: (303) 250-4718	Lab Contact: Jamie Ide	Carrier: Courier	2 of 5 Pages
2000 South Colorado Blvd., Suite 2-300	Analysis Turnaround Time			Sampler: Stauthamer/Jones
Denver, CO 80222	<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS			For Lab Use Only:
(303) 758-4058 Phone	TAT if different from Below			Walk-in Client:
(303) 758-4828 FAX	ASAP			Lab Sampling:
Project Name: CPL-Rangely C-4	<input checked="" type="checkbox"/> 2 weeks			Job / SDG No.:
Site: CPL Rangely	<input type="checkbox"/> 1 week			
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.	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 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: 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		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		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=Grab)	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: ☐ BW ☐ 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		Soil				Lab Sampling:	
(303) 758-4828 FAX		2 weeks		Soil				Job / SDG No.:	
Project Name: CPL-Rangely C-4		1 week		Soil					
Site: CPL Rangely		2 days		Soil					
P O # 203720102		1 day		Soil					
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 TAD

Chain of Custody Record

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		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				COC No: 5 of 5 Pages	
Denver, CO 80222		TAT if different from Below				Sampler: Stauthamer/Jones	
(303) 758-4058 Phone		ASAP				For Lab Use Only:	
(303) 758-4828 FAX		<input checked="" type="checkbox"/> 2 weeks				Walk-in Client:	
Project Name: CPL-Rangely C-4		<input type="checkbox"/> 1 week				Lab Sampling:	
Site: CPL Rangely		<input type="checkbox"/> 2 days				Job / SDG No.:	
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	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: Please List any EPA Waste Codes for the sample in the

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.

☒ 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

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: Stantec	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: 280-95393-4

Login Number: 95393

List Number: 1

Creator: Pottruff, Reed W

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.	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: 280-95393-5

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 2:50:15 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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Visit us at:

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.

Table of Contents

Cover Page 1

Table of Contents 2

Definitions 3

Case Narrative 4

Detection Summary 6

Method Summary 8

Sample Summary 9

Client Sample Results 10

Surrogate Summary 16

QC Sample Results 17

QC Association 21

Chronicle 24

Certification Summary 29

Chain of Custody 30

Receipt Checklists 35



Definitions/Glossary

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

TestAmerica Job ID: 280-95393-5

Qualifiers

GC VOA

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 Semi VOA

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 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: 280-95393-5

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

TestAmerica Job ID: 280-95393-5

Client Sample ID: RC4-SC-112

Lab Sample ID: 280-95393-81

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	16		1.4	0.38	mg/Kg	1		✖	8015C	Total/NA
DRO (C10-C28)	320		4.7	0.79	mg/Kg	1		✖	8015C	Total/NA

Client Sample ID: RC4-SC-113

Lab Sample ID: 280-95393-82

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	7.2		1.5	0.40	mg/Kg	1		✖	8015C	Total/NA
DRO (C10-C28)	150		4.5	0.76	mg/Kg	1		✖	8015C	Total/NA

Client Sample ID: RC4-SC-114

Lab Sample ID: 280-95393-83

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	74		2.7	0.73	mg/Kg	2		✖	8015C	Total/NA
DRO (C10-C28)	400		4.6	0.78	mg/Kg	1		✖	8015C	Total/NA

Client Sample ID: RC4-SC-115

Lab Sample ID: 280-95393-84

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	5.3		1.4	0.37	mg/Kg	1		✖	8015C	Total/NA
DRO (C10-C28)	91		4.5	0.77	mg/Kg	1		✖	8015C	Total/NA

Client Sample ID: RC4-SC-DUP7

Lab Sample ID: 280-95393-85

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	7.1		1.4	0.39	mg/Kg	1		✖	8015C	Total/NA
DRO (C10-C28)	100		4.8	0.81	mg/Kg	1		✖	8015C	Total/NA

Client Sample ID: RC4-SC-116

Lab Sample ID: 280-95393-86

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	3.5	F1	1.4	0.39	mg/Kg	1		✖	8015C	Total/NA
DRO (C10-C28)	52	F1	4.7	0.80	mg/Kg	1		✖	8015C	Total/NA

Client Sample ID: RC4-SC-117

Lab Sample ID: 280-95393-87

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	3.4		1.5	0.40	mg/Kg	1		✖	8015C	Total/NA
DRO (C10-C28)	53		4.7	0.80	mg/Kg	1		✖	8015C	Total/NA

Client Sample ID: RC4-SC-118

Lab Sample ID: 280-95393-88

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	28		1.4	0.38	mg/Kg	1		✖	8015C	Total/NA
DRO (C10-C28)	8000		45	7.7	mg/Kg	10		✖	8015C	Total/NA

Client Sample ID: RC4-SC-119

Lab Sample ID: 280-95393-89

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	3.4		1.4	0.37	mg/Kg	1		✖	8015C	Total/NA
DRO (C10-C28)	150		4.3	0.74	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: 280-95393-5

Client Sample ID: RC4-SC-120

Lab Sample ID: 280-95393-90

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	69		2.7	0.74	mg/Kg	2		☼	8015C	Total/NA
DRO (C10-C28)	2900		22	3.7	mg/Kg	5		☼	8015C	Total/NA

Client Sample ID: RC4-SC-121

Lab Sample ID: 280-95393-91

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	840		26	7.0	mg/Kg	20		☼	8015C	Total/NA
DRO (C10-C28)	9800		45	7.6	mg/Kg	10		☼	8015C	Total/NA

Client Sample ID: RC4-SC-122

Lab Sample ID: 280-95393-92

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	760		28	7.6	mg/Kg	20		☼	8015C	Total/NA
DRO (C10-C28)	9100		44	7.5	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: 280-95393-5

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: 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: 03/30/17 17:25 Date Received: 03/31/17 16:55							Lab Sample ID: 280-95393-81 Matrix: Solid Percent Solids: 84.5		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	16		1.4	0.38	mg/Kg	☼	04/05/17 13:14	04/08/17 02:35	1
Surrogate	%Recovery	Qualifier	Limits						
a,a,a-Trifluorotoluene	81		77 - 123						
							Prepared	Analyzed	Dil Fac
							04/05/17 13:14	04/08/17 02:35	1
Client Sample ID: RC4-SC-113 Date Collected: 03/30/17 17:30 Date Received: 03/31/17 16:55							Lab Sample ID: 280-95393-82 Matrix: Solid Percent Solids: 85.9		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	7.2		1.5	0.40	mg/Kg	☼	04/05/17 13:14	04/08/17 03:00	1
Surrogate	%Recovery	Qualifier	Limits						
a,a,a-Trifluorotoluene	76	X	77 - 123						
							Prepared	Analyzed	Dil Fac
							04/05/17 13:14	04/08/17 03:00	1
Client Sample ID: RC4-SC-114 Date Collected: 03/30/17 17:35 Date Received: 03/31/17 16:55							Lab Sample ID: 280-95393-83 Matrix: Solid Percent Solids: 84.9		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	74		2.7	0.73	mg/Kg	☼	04/05/17 13:14	04/08/17 03:24	2
Surrogate	%Recovery	Qualifier	Limits						
a,a,a-Trifluorotoluene	110		77 - 123						
							Prepared	Analyzed	Dil Fac
							04/05/17 13:14	04/08/17 03:24	2
Client Sample ID: RC4-SC-115 Date Collected: 03/30/17 17:40 Date Received: 03/31/17 16:55							Lab Sample ID: 280-95393-84 Matrix: Solid Percent Solids: 84.1		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	5.3		1.4	0.37	mg/Kg	☼	04/05/17 13:14	04/08/17 03:49	1
Surrogate	%Recovery	Qualifier	Limits						
a,a,a-Trifluorotoluene	82		77 - 123						
							Prepared	Analyzed	Dil Fac
							04/05/17 13:14	04/08/17 03:49	1
Client Sample ID: RC4-SC-DUP7 Date Collected: 03/30/17 17:45 Date Received: 03/31/17 16:55							Lab Sample ID: 280-95393-85 Matrix: Solid Percent Solids: 83.8		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	7.1		1.4	0.39	mg/Kg	☼	04/05/17 13:14	04/08/17 04:38	1
Surrogate	%Recovery	Qualifier	Limits						
a,a,a-Trifluorotoluene	73	X	77 - 123						
							Prepared	Analyzed	Dil Fac
							04/05/17 13:14	04/08/17 04:38	1
Client Sample ID: RC4-SC-116 Date Collected: 03/30/17 17:45 Date Received: 03/31/17 16:55							Lab Sample ID: 280-95393-86 Matrix: Solid Percent Solids: 81.2		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	3.5	F1	1.4	0.39	mg/Kg	☼	04/05/17 13:14	04/08/17 05:03	1
Surrogate	%Recovery	Qualifier	Limits						
a,a,a-Trifluorotoluene	74	X	77 - 123						
							Prepared	Analyzed	Dil Fac
							04/05/17 13:14	04/08/17 05:03	1

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-117
Date Collected: 03/30/17 17:50
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-87
Matrix: Solid
Percent Solids: 83.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	3.4		1.5	0.40	mg/Kg	☼	04/05/17 13:14	04/08/17 06:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	79		77 - 123				04/05/17 13:14	04/08/17 06:18	1

Client Sample ID: RC4-SC-118
Date Collected: 03/30/17 17:55
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-88
Matrix: Solid
Percent Solids: 87.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	28		1.4	0.38	mg/Kg	☼	04/05/17 13:14	04/11/17 13:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	90		77 - 123				04/05/17 13:14	04/11/17 13:06	1

Client Sample ID: RC4-SC-119
Date Collected: 03/30/17 18:00
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-89
Matrix: Solid
Percent Solids: 87.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	3.4		1.4	0.37	mg/Kg	☼	04/05/17 13:14	04/08/17 07:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	77		77 - 123				04/05/17 13:14	04/08/17 07:07	1

Client Sample ID: RC4-SC-120
Date Collected: 03/30/17 18:05
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-90
Matrix: Solid
Percent Solids: 88.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	69		2.7	0.74	mg/Kg	☼	04/05/17 13:14	04/08/17 07:32	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	98		77 - 123				04/05/17 13:14	04/08/17 07:32	2

Client Sample ID: RC4-SC-121
Date Collected: 03/30/17 18:10
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-91
Matrix: Solid
Percent Solids: 88.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	840		26	7.0	mg/Kg	☼	04/05/17 13:14	04/08/17 07:57	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	683	X D	77 - 123				04/05/17 13:14	04/08/17 07:57	20

Client Sample ID: RC4-SC-122
Date Collected: 03/30/17 18:15
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-92
Matrix: Solid
Percent Solids: 89.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	760		28	7.6	mg/Kg	☼	04/05/17 13:14	04/08/17 08:22	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	282	X D	77 - 123				04/05/17 13:14	04/08/17 08:22	20

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-112
Date Collected: 03/30/17 17:25
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-81
Matrix: Solid
Percent Solids: 84.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	320		4.7	0.79	mg/Kg	☼	04/05/17 08:45	04/11/17 02:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	96		49 - 115				04/05/17 08:45	04/11/17 02:00	1

Client Sample ID: RC4-SC-113
Date Collected: 03/30/17 17:30
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-82
Matrix: Solid
Percent Solids: 85.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	150		4.5	0.76	mg/Kg	☼	04/05/17 08:45	04/11/17 02:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	99		49 - 115				04/05/17 08:45	04/11/17 02:25	1

Client Sample ID: RC4-SC-114
Date Collected: 03/30/17 17:35
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-83
Matrix: Solid
Percent Solids: 84.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	400		4.6	0.78	mg/Kg	☼	04/05/17 08:45	04/11/17 02:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	90		49 - 115				04/05/17 08:45	04/11/17 02:49	1

Client Sample ID: RC4-SC-115
Date Collected: 03/30/17 17:40
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-84
Matrix: Solid
Percent Solids: 84.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	91		4.5	0.77	mg/Kg	☼	04/05/17 08:45	04/11/17 03:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	108		49 - 115				04/05/17 08:45	04/11/17 03:14	1

Client Sample ID: RC4-SC-DUP7
Date Collected: 03/30/17 17:45
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-85
Matrix: Solid
Percent Solids: 83.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	100		4.8	0.81	mg/Kg	☼	04/05/17 08:45	04/11/17 03:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	112		49 - 115				04/05/17 08:45	04/11/17 03:38	1

Client Sample ID: RC4-SC-116
Date Collected: 03/30/17 17:45
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-86
Matrix: Solid
Percent Solids: 81.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	52	F1	4.7	0.80	mg/Kg	☼	04/05/17 08:45	04/07/17 04:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	111		49 - 115				04/05/17 08:45	04/07/17 04:36	1

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-117
Date Collected: 03/30/17 17:50
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-87
Matrix: Solid
Percent Solids: 83.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	53		4.7	0.80	mg/Kg	☼	04/05/17 08:45	04/07/17 05:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	110		49 - 115				04/05/17 08:45	04/07/17 05:49	1

Client Sample ID: RC4-SC-118
Date Collected: 03/30/17 17:55
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-88
Matrix: Solid
Percent Solids: 87.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	8000		45	7.7	mg/Kg	☼	04/05/17 08:45	04/08/17 13:58	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	8	X D	49 - 115				04/05/17 08:45	04/08/17 13:58	10

Client Sample ID: RC4-SC-119
Date Collected: 03/30/17 18:00
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-89
Matrix: Solid
Percent Solids: 87.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	150		4.3	0.74	mg/Kg	☼	04/05/17 08:45	04/07/17 06:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	104		49 - 115				04/05/17 08:45	04/07/17 06:39	1

Client Sample ID: RC4-SC-120
Date Collected: 03/30/17 18:05
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-90
Matrix: Solid
Percent Solids: 88.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	2900		22	3.7	mg/Kg	☼	04/05/17 08:45	04/08/17 14:48	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	42	X D	49 - 115				04/05/17 08:45	04/08/17 14:48	5

Client Sample ID: RC4-SC-121
Date Collected: 03/30/17 18:10
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-91
Matrix: Solid
Percent Solids: 88.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	9800		45	7.6	mg/Kg	☼	04/05/17 08:45	04/08/17 15:12	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	29	X D	49 - 115				04/05/17 08:45	04/08/17 15:12	10

Client Sample ID: RC4-SC-122
Date Collected: 03/30/17 18:15
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-92
Matrix: Solid
Percent Solids: 89.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	9100		44	7.5	mg/Kg	☼	04/05/17 08:45	04/08/17 15:37	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	1082	X D	49 - 115				04/05/17 08:45	04/08/17 15:37	10

TestAmerica Denver

Client Sample Results

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

TestAmerica Job ID: 280-95393-5

General Chemistry

Client Sample ID: RC4-SC-112
Date Collected: 03/30/17 17:25
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-81
Matrix: Solid
Percent Solids: 84.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.5		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	84.5		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-113
Date Collected: 03/30/17 17:30
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-82
Matrix: Solid
Percent Solids: 85.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.1		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	85.9		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-114
Date Collected: 03/30/17 17:35
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-83
Matrix: Solid
Percent Solids: 84.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.1		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	84.9		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-115
Date Collected: 03/30/17 17:40
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-84
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-DUP7
Date Collected: 03/30/17 17:45
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-85
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	%			04/01/17 16:46	1
Percent Solids	83.8		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-116
Date Collected: 03/30/17 17:45
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-86
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-117
Date Collected: 03/30/17 17:50
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-87
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	%			04/01/17 16:46	1
Percent Solids	83.8		0.1	0.1	%			04/01/17 16:46	1

Client Sample ID: RC4-SC-118
Date Collected: 03/30/17 17:55
Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-88
Matrix: Solid
Percent Solids: 87.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12.7		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	87.3		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: 280-95393-5

General Chemistry

Client Sample ID: RC4-SC-119

Date Collected: 03/30/17 18:00

Date Received: 03/31/17 16:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.0		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	87.0		0.1	0.1	%			04/01/17 16:46	1

Lab Sample ID: 280-95393-89

Matrix: Solid

Percent Solids: 87.0

Client Sample ID: RC4-SC-120

Date Collected: 03/30/17 18:05

Date Received: 03/31/17 16:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.2		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	88.8		0.1	0.1	%			04/01/17 16:46	1

Lab Sample ID: 280-95393-90

Matrix: Solid

Percent Solids: 88.8

Client Sample ID: RC4-SC-121

Date Collected: 03/30/17 18:10

Date Received: 03/31/17 16:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.9		0.1	0.1	%			04/01/17 16:52	1
Percent Solids	88.1		0.1	0.1	%			04/01/17 16:52	1

Lab Sample ID: 280-95393-91

Matrix: Solid

Percent Solids: 88.1

Client Sample ID: RC4-SC-122

Date Collected: 03/30/17 18:15

Date Received: 03/31/17 16:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.4		0.1	0.1	%			04/01/17 16:46	1
Percent Solids	89.6		0.1	0.1	%			04/01/17 16:46	1

Lab Sample ID: 280-95393-92

Matrix: Solid

Percent Solids: 89.6

TestAmerica Denver

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

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)

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
GRO (C6-C10)	ND		1.2	0.33	mg/Kg		04/05/17 13:14	04/07/17 23:42	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	92		77 - 123				04/05/17 13:14	04/07/17 23:42	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
GRO (C6-C10)	5.50	5.90		mg/Kg		107	85 - 153
Surrogate	%Recovery	LCS Qualifier	Limits				
a,a,a-Trifluorotoluene	93		77 - 123				

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
GRO (C6-C10)	3.5	F1	6.56	9.58		mg/Kg	☼	92	85 - 153
Surrogate	%Recovery	MS Qualifier	Limits						
a,a,a-Trifluorotoluene	73	X	77 - 123						

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
GRO (C6-C10)	3.5	F1	6.68	9.14	F1	mg/Kg	☼	84	85 - 153	5	30
Surrogate	%Recovery	MSD Qualifier	Limits								
a,a,a-Trifluorotoluene	76	X	77 - 123								

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
GRO (C6-C10)	ND		0.024	0.0065	mg/Kg			04/11/17 14:52	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	96		77 - 123					04/11/17 14:52	1

TestAmerica Denver

QC 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) (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		
GRO (C6-C10)			0.101	0.140		mg/Kg		139	85 - 153		
Surrogate	LCS	LCS									
	%Recovery	Qualifier	Limits								
a,a,a-Trifluorotoluene	95		77 - 123								

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
GRO (C6-C10)			0.101	0.135		mg/Kg		134	85 - 153	4	30
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits								
a,a,a-Trifluorotoluene	95		77 - 123								

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
DRO (C10-C28)	ND		4.0	0.68	mg/Kg		04/05/17 08:45	04/10/17 18:41	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	112		49 - 115				04/05/17 08:45	04/10/17 18:41	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

			Spike	LCS	LCS					
Analyte			Added	Result	Qualifier	Unit	D	%Rec	%Rec.	Limits
DRO (C10-C28)			66.7	63.6		mg/Kg		95	53 - 115	
Surrogate	LCS	LCS								
	%Recovery	Qualifier	Limits							
o-Terphenyl (Surr)	110		49 - 115							

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
DRO (C10-C28)	ND		4.0	0.68	mg/Kg		04/05/17 08:45	04/07/17 03:47	1

TestAmerica Denver

QC 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) (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 %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	117	X	49 - 115	04/05/17 08:45	04/07/17 03:47	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
DRO (C10-C28)	66.7	69.4		mg/Kg		104	53 - 115
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
o-Terphenyl (Surr)	118	X	49 - 115				

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
DRO (C10-C28)	52	F1	79.2	140		mg/Kg	☼	111	56 - 115
Surrogate	MS %Recovery	MS Qualifier	Limits						
o-Terphenyl (Surr)	118	X	49 - 115						

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
DRO (C10-C28)	52	F1	77.2	145	F1	mg/Kg	☼	121	56 - 115	4	23
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
o-Terphenyl (Surr)	118	X	49 - 115								

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
Percent Moisture	15.5		14.8		%		5	20
Percent Solids	84.5		85.2		%		0.9	20

TestAmerica Denver

QC Sample Results

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

TestAmerica Job ID: 280-95393-5

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	RPD Limit
Percent Moisture	11.9		11.6		%		3	20
Percent Solids	88.1		88.4		%		0.4	20

QC Association Summary

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

TestAmerica Job ID: 280-95393-5

GC VOA

Prep Batch: 368182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-81	RC4-SC-112	Total/NA	Solid	5035	
280-95393-82	RC4-SC-113	Total/NA	Solid	5035	
280-95393-83	RC4-SC-114	Total/NA	Solid	5035	
280-95393-84	RC4-SC-115	Total/NA	Solid	5035	
280-95393-85	RC4-SC-DUP7	Total/NA	Solid	5035	
280-95393-86	RC4-SC-116	Total/NA	Solid	5035	
280-95393-87	RC4-SC-117	Total/NA	Solid	5035	
280-95393-88	RC4-SC-118	Total/NA	Solid	5035	
280-95393-89	RC4-SC-119	Total/NA	Solid	5035	
280-95393-90	RC4-SC-120	Total/NA	Solid	5035	
280-95393-91	RC4-SC-121	Total/NA	Solid	5035	
280-95393-92	RC4-SC-122	Total/NA	Solid	5035	
MB 280-368182/1-A	Method Blank	Total/NA	Solid	5035	
LCS 280-368182/2-A	Lab Control Sample	Total/NA	Solid	5035	
280-95393-86 MS	RC4-SC-116	Total/NA	Solid	5035	
280-95393-86 MSD	RC4-SC-116	Total/NA	Solid	5035	

Analysis Batch: 368533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-81	RC4-SC-112	Total/NA	Solid	8015C	368182
280-95393-82	RC4-SC-113	Total/NA	Solid	8015C	368182
280-95393-83	RC4-SC-114	Total/NA	Solid	8015C	368182
280-95393-84	RC4-SC-115	Total/NA	Solid	8015C	368182
280-95393-85	RC4-SC-DUP7	Total/NA	Solid	8015C	368182
280-95393-86	RC4-SC-116	Total/NA	Solid	8015C	368182
280-95393-87	RC4-SC-117	Total/NA	Solid	8015C	368182
280-95393-89	RC4-SC-119	Total/NA	Solid	8015C	368182
280-95393-90	RC4-SC-120	Total/NA	Solid	8015C	368182
280-95393-91	RC4-SC-121	Total/NA	Solid	8015C	368182
280-95393-92	RC4-SC-122	Total/NA	Solid	8015C	368182
MB 280-368182/1-A	Method Blank	Total/NA	Solid	8015C	368182
LCS 280-368182/2-A	Lab Control Sample	Total/NA	Solid	8015C	368182
280-95393-86 MS	RC4-SC-116	Total/NA	Solid	8015C	368182
280-95393-86 MSD	RC4-SC-116	Total/NA	Solid	8015C	368182

Analysis Batch: 368872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-88	RC4-SC-118	Total/NA	Solid	8015C	368182
MB 280-368872/67	Method Blank	Total/NA	Solid	8015C	
LCS 280-368872/12	Lab Control Sample	Total/NA	Solid	8015C	
LCSD 280-368872/13	Lab Control Sample Dup	Total/NA	Solid	8015C	

GC Semi VOA

Prep Batch: 368100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-81	RC4-SC-112	Total/NA	Solid	3546	
280-95393-82	RC4-SC-113	Total/NA	Solid	3546	
280-95393-83	RC4-SC-114	Total/NA	Solid	3546	
280-95393-84	RC4-SC-115	Total/NA	Solid	3546	

TestAmerica Denver

QC Association Summary

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

TestAmerica Job ID: 280-95393-5

GC Semi VOA (Continued)

Prep Batch: 368100 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-85	RC4-SC-DUP7	Total/NA	Solid	3546	
MB 280-368100/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-368100/2-A	Lab Control Sample	Total/NA	Solid	3546	

Prep Batch: 368108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-86	RC4-SC-116	Total/NA	Solid	3546	
280-95393-87	RC4-SC-117	Total/NA	Solid	3546	
280-95393-88	RC4-SC-118	Total/NA	Solid	3546	
280-95393-89	RC4-SC-119	Total/NA	Solid	3546	
280-95393-90	RC4-SC-120	Total/NA	Solid	3546	
280-95393-91	RC4-SC-121	Total/NA	Solid	3546	
280-95393-92	RC4-SC-122	Total/NA	Solid	3546	
MB 280-368108/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-368108/2-A	Lab Control Sample	Total/NA	Solid	3546	
280-95393-86 MS	RC4-SC-116	Total/NA	Solid	3546	
280-95393-86 MSD	RC4-SC-116	Total/NA	Solid	3546	

Analysis Batch: 368348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-86	RC4-SC-116	Total/NA	Solid	8015C	368108
280-95393-87	RC4-SC-117	Total/NA	Solid	8015C	368108
280-95393-89	RC4-SC-119	Total/NA	Solid	8015C	368108
MB 280-368108/1-A	Method Blank	Total/NA	Solid	8015C	368108
LCS 280-368108/2-A	Lab Control Sample	Total/NA	Solid	8015C	368108
280-95393-86 MS	RC4-SC-116	Total/NA	Solid	8015C	368108
280-95393-86 MSD	RC4-SC-116	Total/NA	Solid	8015C	368108

Analysis Batch: 368505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-88	RC4-SC-118	Total/NA	Solid	8015C	368108
280-95393-90	RC4-SC-120	Total/NA	Solid	8015C	368108
280-95393-91	RC4-SC-121	Total/NA	Solid	8015C	368108
280-95393-92	RC4-SC-122	Total/NA	Solid	8015C	368108

Analysis Batch: 368632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-81	RC4-SC-112	Total/NA	Solid	8015C	368100
280-95393-82	RC4-SC-113	Total/NA	Solid	8015C	368100
280-95393-83	RC4-SC-114	Total/NA	Solid	8015C	368100
280-95393-84	RC4-SC-115	Total/NA	Solid	8015C	368100
280-95393-85	RC4-SC-DUP7	Total/NA	Solid	8015C	368100
MB 280-368100/1-A	Method Blank	Total/NA	Solid	8015C	368100
LCS 280-368100/2-A	Lab Control Sample	Total/NA	Solid	8015C	368100

General Chemistry

Analysis Batch: 367692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-81	RC4-SC-112	Total/NA	Solid	Moisture	

TestAmerica Denver

QC Association Summary

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

TestAmerica Job ID: 280-95393-5

General Chemistry (Continued)

Analysis Batch: 367692 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95393-82	RC4-SC-113	Total/NA	Solid	Moisture	
280-95393-83	RC4-SC-114	Total/NA	Solid	Moisture	
280-95393-84	RC4-SC-115	Total/NA	Solid	Moisture	
280-95393-85	RC4-SC-DUP7	Total/NA	Solid	Moisture	
280-95393-86	RC4-SC-116	Total/NA	Solid	Moisture	
280-95393-87	RC4-SC-117	Total/NA	Solid	Moisture	
280-95393-88	RC4-SC-118	Total/NA	Solid	Moisture	
280-95393-89	RC4-SC-119	Total/NA	Solid	Moisture	
280-95393-90	RC4-SC-120	Total/NA	Solid	Moisture	
280-95393-91	RC4-SC-121	Total/NA	Solid	Moisture	
280-95393-92	RC4-SC-122	Total/NA	Solid	Moisture	
280-95393-81 DU	RC4-SC-112	Total/NA	Solid	Moisture	
280-95393-91 DU	RC4-SC-121	Total/NA	Solid	Moisture	

Lab Chronicle

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

TestAmerica Job ID: 280-95393-5

Client Sample ID: RC4-SC-112

Date Collected: 03/30/17 17:25

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-81

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-112

Date Collected: 03/30/17 17:25

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-81

Matrix: Solid

Percent Solids: 84.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.07 g	5 mL	368182	04/05/17 13:14	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368533	04/08/17 02:35	KDK	TAL DEN
Total/NA	Prep	3546			30.5 g	1 mL	368100	04/05/17 08:45	JDW	TAL DEN
Total/NA	Analysis	8015C		1			368632	04/11/17 02:00	TEM	TAL DEN

Client Sample ID: RC4-SC-113

Date Collected: 03/30/17 17:30

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-82

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-113

Date Collected: 03/30/17 17:30

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-82

Matrix: Solid

Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.73 g	5 mL	368182	04/05/17 13:14	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368533	04/08/17 03:00	KDK	TAL DEN
Total/NA	Prep	3546			31.0 g	1 mL	368100	04/05/17 08:45	JDW	TAL DEN
Total/NA	Analysis	8015C		1			368632	04/11/17 02:25	TEM	TAL DEN

Client Sample ID: RC4-SC-114

Date Collected: 03/30/17 17:35

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-83

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-114

Date Collected: 03/30/17 17:35

Date Received: 03/31/17 16:55

Lab Sample ID: 280-95393-83

Matrix: Solid

Percent Solids: 84.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.25 g	5 mL	368182	04/05/17 13:14	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-95393-5

Client Sample ID: RC4-SC-114

Lab Sample ID: 280-95393-83

Date Collected: 03/30/17 17:35

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 84.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015C		2	0.1 mL	5 mL	368533	04/08/17 03:24	KDK	TAL DEN
Total/NA	Prep	3546			30.7 g	1 mL	368100	04/05/17 08:45	JDW	TAL DEN
Total/NA	Analysis	8015C		1			368632	04/11/17 02:49	TEM	TAL DEN

Client Sample ID: RC4-SC-115

Lab Sample ID: 280-95393-84

Date Collected: 03/30/17 17:40

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-115

Lab Sample ID: 280-95393-84

Date Collected: 03/30/17 17:40

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 84.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.20 g	5 mL	368182	04/05/17 13:14	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368533	04/08/17 03:49	KDK	TAL DEN
Total/NA	Prep	3546			31.4 g	1 mL	368100	04/05/17 08:45	JDW	TAL DEN
Total/NA	Analysis	8015C		1			368632	04/11/17 03:14	TEM	TAL DEN

Client Sample ID: RC4-SC-DUP7

Lab Sample ID: 280-95393-85

Date Collected: 03/30/17 17:45

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-DUP7

Lab Sample ID: 280-95393-85

Date Collected: 03/30/17 17:45

Matrix: Solid

Date Received: 03/31/17 16:55

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	5035			5.03 g	5 mL	368182	04/05/17 13:14	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368533	04/08/17 04:38	KDK	TAL DEN
Total/NA	Prep	3546			30.1 g	1 mL	368100	04/05/17 08:45	JDW	TAL DEN
Total/NA	Analysis	8015C		1			368632	04/11/17 03:38	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-95393-5

Client Sample ID: RC4-SC-116

Lab Sample ID: 280-95393-86

Date Collected: 03/30/17 17:45

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-116

Lab Sample ID: 280-95393-86

Date Collected: 03/30/17 17:45

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 81.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.19 g	5 mL	368182	04/05/17 13:14	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368533	04/08/17 05:03	KDK	TAL DEN
Total/NA	Prep	3546			31.4 g	1 mL	368108	04/05/17 08:45	JDW	TAL DEN
Total/NA	Analysis	8015C		1			368348	04/07/17 04:36	TEM	TAL DEN

Client Sample ID: RC4-SC-117

Lab Sample ID: 280-95393-87

Date Collected: 03/30/17 17:50

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-117

Lab Sample ID: 280-95393-87

Date Collected: 03/30/17 17:50

Matrix: Solid

Date Received: 03/31/17 16:55

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	5035			4.84 g	5 mL	368182	04/05/17 13:14	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368533	04/08/17 06:18	KDK	TAL DEN
Total/NA	Prep	3546			30.2 g	1 mL	368108	04/05/17 08:45	JDW	TAL DEN
Total/NA	Analysis	8015C		1			368348	04/07/17 05:49	TEM	TAL DEN

Client Sample ID: RC4-SC-118

Lab Sample ID: 280-95393-88

Date Collected: 03/30/17 17:55

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-118

Lab Sample ID: 280-95393-88

Date Collected: 03/30/17 17:55

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 87.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	368182	04/05/17 13:14	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-95393-5

Client Sample ID: RC4-SC-118

Lab Sample ID: 280-95393-88

Date Collected: 03/30/17 17:55

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 87.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368872	04/11/17 13:06	KDK	TAL DEN
Total/NA	Prep	3546			30.4 g	1 mL	368108	04/05/17 08:45	JDW	TAL DEN
Total/NA	Analysis	8015C		10			368505	04/08/17 13:58	TEM	TAL DEN

Client Sample ID: RC4-SC-119

Lab Sample ID: 280-95393-89

Date Collected: 03/30/17 18:00

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-119

Lab Sample ID: 280-95393-89

Date Collected: 03/30/17 18:00

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 87.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	368182	04/05/17 13:14	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	368533	04/08/17 07:07	KDK	TAL DEN
Total/NA	Prep	3546			31.7 g	1 mL	368108	04/05/17 08:45	JDW	TAL DEN
Total/NA	Analysis	8015C		1			368348	04/07/17 06:39	TEM	TAL DEN

Client Sample ID: RC4-SC-120

Lab Sample ID: 280-95393-90

Date Collected: 03/30/17 18:05

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-120

Lab Sample ID: 280-95393-90

Date Collected: 03/30/17 18:05

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 88.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.94 g	5 mL	368182	04/05/17 13:14	TEM	TAL DEN
Total/NA	Analysis	8015C		2	0.1 mL	5 mL	368533	04/08/17 07:32	KDK	TAL DEN
Total/NA	Prep	3546			31.0 g	1 mL	368108	04/05/17 08:45	JDW	TAL DEN
Total/NA	Analysis	8015C		5			368505	04/08/17 14:48	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

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

TestAmerica Job ID: 280-95393-5

Client Sample ID: RC4-SC-121

Lab Sample ID: 280-95393-91

Date Collected: 03/30/17 18:10

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 16:52	RSM	TAL DEN

Client Sample ID: RC4-SC-121

Lab Sample ID: 280-95393-91

Date Collected: 03/30/17 18:10

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 88.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.26 g	5 mL	368182	04/05/17 13:14	TEM	TAL DEN
Total/NA	Analysis	8015C		20	0.1 mL	5 mL	368533	04/08/17 07:57	KDK	TAL DEN
Total/NA	Prep	3546			30.5 g	1 mL	368108	04/05/17 08:45	JDW	TAL DEN
Total/NA	Analysis	8015C		10			368505	04/08/17 15:12	TEM	TAL DEN

Client Sample ID: RC4-SC-122

Lab Sample ID: 280-95393-92

Date Collected: 03/30/17 18:15

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-122

Lab Sample ID: 280-95393-92

Date Collected: 03/30/17 18:15

Matrix: Solid

Date Received: 03/31/17 16:55

Percent Solids: 89.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.76 g	5 mL	368182	04/05/17 13:14	TEM	TAL DEN
Total/NA	Analysis	8015C		20	0.1 mL	5 mL	368533	04/08/17 08:22	KDK	TAL DEN
Total/NA	Prep	3546			30.4 g	1 mL	368108	04/05/17 08:45	JDW	TAL DEN
Total/NA	Analysis	8015C		10			368505	04/08/17 15:37	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: 280-95393-5

Project/Site: Stantec CV X - 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		2907.01	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	NE LAP	4	E 87667	06-30-17
Georgia	State Program	4	N/A	01-08-18
Illinois	NE LAP	5	200017	04-30-18
Iowa	State Program	7	370	12-01-18 *
Kansas	NE LAP	7	E-10166	04-30-17 *
Louisiana	NE LAP	6	02096	06-30-17
Maine	State Program	1	CO 0002	03-03-19
Minnesota	NE LAP	5	8-999-405	12-31-17 *
Nevada	State Program	9	CO 0026	07-31-17
New Hampshire	NE LAP	1	205310	04-28-17
New Jersey	NE LAP	2	CO 004	06-30-17
New York	NE LAP	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	NE LAP	10	4025	01-08-18
Pennsylvania	NE LAP	3	68-00664	07-31-17
South Carolina	State Program	4	72002001	01-09-17 *
Texas	NE LAP	6	T104704183-16-12	09-30-17
USDA	Federal		P 330-16-00397	12-15-19
Utah	NE LAP	8	CO 00026	07-31-17
Virginia	NE LAP	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

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		COC No: 1 of 5 Pages	
2000 South Colorado Blvd., Suite 2-300		Analysis Turnaround Time		Lab Contact: Jamie Ide		Carrier: Courier		Sampler: Stauthamer/Jones	
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) Perform MS / MSD (Y/N) GRO-TEPH 8015C DRO-TEPH 8015C				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-38	3/30/2017	1005	G	Soil	2				
RC4-SC-39	3/30/2017	1010	G	Soil	2				
RC4-SC-40	3/30/2017	1015	G	Soil	2				
RC4-SC-41	3/30/2017	1020	G	Soil	2				
RC4-SC-42	3/30/2017	1025	G	Soil	2				
RC4-SC-43	3/30/2017	1030	G	Soil	2				
RC4-SC-44	3/30/2017	1035	G	Soil	2				
RC4-SC-45	3/30/2017	1040	G	Soil	2				
RC4-SC-46	3/30/2017	1045	G	Soil	2				
RC4-SC-47	3/30/2017	1050	G	Soil	2				
RC4-SC-48	3/30/2017	1055	G	Soil	2				
RC4-SC-49	3/30/2017	1100	G	Soil	2				
RC4-SC-50	3/30/2017	1105	G	Soil	2				
RC4-SC-51	3/30/2017	1110	G	Soil	2				
RC4-SC-52	3/30/2017	1115	G	Soil	2				
RC4-SC-53	3/30/2017	1120	G	Soil	2				
RC4-SC-54	3/30/2017	1125	G	Soil	2				
RC4-SC-55	3/30/2017	1130	G	Soil	2				
RC4-SC-56	3/30/2017	1135	G	Soil	2				
RC4-SC-57	3/30/2017	1140	G	Soil	2				
RC4-SC-58	3/30/2017	1145	G	Soil	2				



Reed PCH 3-31-17 1655 TAD

Chain of Custody Record

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 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		Filtered Sample (Y/N) Perform MS / MSD (Y/N) GRO-TEPH 8015C DRO-TEPH 8015C		COC No: 2 of 5 Pages	
Denver, CO 80222						Sampler: Stauthamer/Jones	
(303) 758-4058 Phone						For Lab Use Only:	
(303) 758-4828 FAX						Walk-in Client:	
Project Name: CPL-Rangely C-4						Lab Sampling:	
Site: CPL Rangely						Job / SDG No.:	
P O # 203720102							

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	
RC4-SC-60	3/30/2017	1155	G	Soil	2	
RC4-SC-61	3/30/2017	1200	G	Soil	2	
RC4-SC-62	3/30/2017	1205	G	Soil	2	
RC4-SC-63	3/30/2017	1210	G	Soil	2	
RC4-SC-64	3/30/2017	1215	G	Soil	2	
RC4-SC-65	3/30/2017	1220	G	Soil	2	
RC4-SC-66	3/30/2017	1225	G	Soil	2	
RC4-SC-67	3/30/2017	1230	G	Soil	2	
RC4-SC-68	3/30/2017	1235	G	Soil	2	
RC4-SC-69	3/30/2017	1240	G	Soil	6	
RC4-SC-70	3/30/2017	1245	G	Soil	2	
RC4-SC-DUP1	3/30/2017	1245	G	Soil	4	
RC4-SC-71	3/30/2017	1250	G	Soil	2	
RC4-SC-72	3/30/2017	1255	G	Soil	2	
RC4-SC-73	3/30/2017	1300	G	Soil	2	
RC4-SC-74	3/30/2017	1305	G	Soil	2	
RC4-SC-75	3/30/2017	1310	G	Soil	6	
RC4-SC-76	3/30/2017	1315	G	Soil	2	
RC4-SC-DUP2	3/30/2017	1315	G	Soil	4	
RC4-SC-77	3/30/2017	1320	G	Soil	2	

Paul PFA 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: 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=Grab)	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 3-31-17 1655 TAD

Chain of Custody Record

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ BW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Bethany Lucente		Site Contact: Bethany Lucente		Date: 3/31/2017		COC No: 14 of 5 Pages	
Slantec		Tel/Fax: (303) 250-4718		Lab Contact: Jamie Ide		Carrier: Courier		Sampler: Stautthamer/Jones	
2000 South Colorado Blvd., Suite 2-300		Analysis Turnaround Time		Perform MS / MSD (Y / N)				For Lab Use Only:	
Denver, CO 80222		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS		Filtered Sample (Y / N)				Walk-in Client:	
(303) 758-4058 Phone		TAT if different from Below		Sample Type (C-Comp, G-Grab)				Lab Sampling:	
(303) 758-4828 FAX		ASAP		Sample Time				Job / SDG No.:	
Project Name: CPL-Rangely C-4		<input checked="" type="checkbox"/> 2 weeks		Matrix					
Site: CPL Rangely		<input type="checkbox"/> 1 week		# of Cont.					
P O # 203720102		<input type="checkbox"/> 2 days							
		<input type="checkbox"/> 1 day							
Sample Identification		Sample Date		Sample Time		Matrix		Sample Specific Notes:	
RC4-SC-DUP5	3/30/2017	1610	G	Soil	4				
RC4-SC-97	3/30/2017	1610	G	Soil	6				
RC4-SC-98	3/30/2017	1615	G	Soil	2				
RC4-SC-99	3/30/2017	1620	G	Soil	2				
RC4-SC-100	3/30/2017	1625	G	Soil	2				
RC4-SC-101	3/30/2017	1630	G	Soil	2				
RC4-SC-102	3/30/2017	1635	G	Soil	2				
RC4-SC-103	3/30/2017	1640	G	Soil	2				
RC4-SC-104	3/30/2017	1645	G	Soil	2				
RC4-SC-105	3/30/2017	1650	G	Soil	2				
RC4-SC-DUP6	3/30/2017	1650	G	Soil	4				
RC4-SC-106	3/30/2017	1655	G	Soil	6				
RC4-SC-107	3/30/2017	1700	G	Soil	2				
RC4-SC-108	3/30/2017	1705	G	Soil	2				
RC4-SC-109	3/30/2017	1710	G	Soil	2				
RC4-SC-110	3/30/2017	1715	G	Soil	2				
RC4-SC-111	3/30/2017	1720	G	Soil	2				
RC4-SC-112	3/30/2017	1725	G	Soil	2				
RC4-SC-113	3/30/2017	1730	G	Soil	2				
RC4-SC-114	3/30/2017	1735	G	Soil	2				
RC4-SC-115	3/30/2017	1740	G	Soil	2				

Reed PETA 3-31-17 1655 TAD

Chain of Custody Record

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		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				COC No: 5 of 5 Pages	
Denver, CO 80222		TAT if different from Below				Sampler: Stauthamer/Jones	
(303) 758-4058 Phone		ASAP				For Lab Use Only:	
(303) 758-4828 FAX		<input checked="" type="checkbox"/> 2 weeks				Walk-in Client:	
Project Name: CPL-Rangely C-4		<input type="checkbox"/> 1 week				Lab Sampling:	
Site: CPL Rangely		<input type="checkbox"/> 2 days				Job / SDG No.:	
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	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: Please List any EPA Waste Codes for the sample in the

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.

☒ 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

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: Joe Stauter	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: 280-95393-5

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: 280-95486-1

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

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.

Table of Contents

Cover Page 1

Table of Contents 2

Definitions 3

Case Narrative 4

Detection Summary 6

Method Summary 8

Sample Summary 9

Client Sample Results 10

Surrogate Summary 17

QC Sample Results 19

QC Association 21

Chronicle 24

Certification Summary 30

Chain of Custody 31

Receipt Checklists 33



Definitions/Glossary

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

TestAmerica Job ID: 280-95486-1

Qualifiers

GC 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.
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 Semi VOA

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 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: 280-95486-1

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[MS]), 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[MS]), 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

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

TestAmerica Job ID: 280-95486-1

Client Sample ID: RC4-SC-123

Lab Sample ID: 280-95486-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	5.5		1.5	0.41	mg/Kg	1	☼	8015C	Total/NA
DRO (C10-C28)	62		4.9	0.84	mg/Kg	1	☼	8015C	Total/NA

Client Sample ID: RC4-SC-124

Lab Sample ID: 280-95486-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	1.8		1.4	0.38	mg/Kg	1	☼	8015C	Total/NA
DRO (C10-C28)	8.0		4.5	0.77	mg/Kg	1	☼	8015C	Total/NA

Client Sample ID: RC4-SC-125

Lab Sample ID: 280-95486-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	19		1.5	0.40	mg/Kg	1	☼	8015C	Total/NA
DRO (C10-C28)	43		5.0	0.84	mg/Kg	1	☼	8015C	Total/NA

Client Sample ID: RC4-SC-126

Lab Sample ID: 280-95486-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	33		1.5	0.42	mg/Kg	1	☼	8015C	Total/NA
DRO (C10-C28)	52		5.2	0.87	mg/Kg	1	☼	8015C	Total/NA

Client Sample ID: RC4-SC-127

Lab Sample ID: 280-95486-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	8.2		1.5	0.39	mg/Kg	1	☼	8015C	Total/NA
DRO (C10-C28)	6.4		4.8	0.82	mg/Kg	1	☼	8015C	Total/NA

Client Sample ID: RC4-SC-128

Lab Sample ID: 280-95486-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	51		1.5	0.42	mg/Kg	1	☼	8015C	Total/NA
DRO (C10-C28)	300		5.0	0.85	mg/Kg	1	☼	8015C	Total/NA

Client Sample ID: RC4-SC-129

Lab Sample ID: 280-95486-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	60	F2	1.7	0.45	mg/Kg	1	☼	8015C	Total/NA
DRO (C10-C28)	370	F2	5.5	0.94	mg/Kg	1	☼	8015C	Total/NA

Client Sample ID: RC4-SC-130

Lab Sample ID: 280-95486-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	1.3	J	1.6	0.42	mg/Kg	1	☼	8015C	Total/NA
DRO (C10-C28)	33		5.0	0.85	mg/Kg	1	☼	8015C	Total/NA

Client Sample ID: RC4-SC-131

Lab Sample ID: 280-95486-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
GRO (C6-C10)	1.2	J	1.5	0.41	mg/Kg	1	☼	8015C	Total/NA
DRO (C10-C28)	160		5.2	0.88	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: 280-95486-1

Client Sample ID: RC4-SC-132

Lab Sample ID: 280-95486-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	0.40	J	1.4	0.38	mg/Kg	1		✱	8015C	Total/NA
DRO (C10-C28)	190		5.0	0.84	mg/Kg	1		✱	8015C	Total/NA

Client Sample ID: RC4-SC-133

Lab Sample ID: 280-95486-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	8.9		1.5	0.42	mg/Kg	1		✱	8015C	Total/NA
DRO (C10-C28)	61		5.3	0.90	mg/Kg	1		✱	8015C	Total/NA

Client Sample ID: RC4-SC-134

Lab Sample ID: 280-95486-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	5.6		1.4	0.38	mg/Kg	1		✱	8015C	Total/NA
DRO (C10-C28)	350		4.6	0.77	mg/Kg	1		✱	8015C	Total/NA

Client Sample ID: RC4-SC-135

Lab Sample ID: 280-95486-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	4.1		1.4	0.39	mg/Kg	1		✱	8015C	Total/NA
DRO (C10-C28)	22		4.6	0.78	mg/Kg	1		✱	8015C	Total/NA

Client Sample ID: RC4-SC-136

Lab Sample ID: 280-95486-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
DRO (C10-C28)	14		4.8	0.81	mg/Kg	1		✱	8015C	Total/NA

Client Sample ID: RC4-SC-DUP8

Lab Sample ID: 280-95486-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
GRO (C6-C10)	93		3.8	1.0	mg/Kg	2		✱	8015C	Total/NA
DRO (C10-C28)	470		6.0	1.0	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: 280-95486-1

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: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95486-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-95486-1	RC4-SC-123	Solid	04/04/17 10:04	04/04/17 21:05
280-95486-2	RC4-SC-124	Solid	04/04/17 10:15	04/04/17 21:05
280-95486-3	RC4-SC-125	Solid	04/04/17 10:23	04/04/17 21:05
280-95486-4	RC4-SC-126	Solid	04/04/17 10:30	04/04/17 21:05
280-95486-5	RC4-SC-127	Solid	04/04/17 10:42	04/04/17 21:05
280-95486-6	RC4-SC-128	Solid	04/04/17 10:50	04/04/17 21:05
280-95486-7	RC4-SC-129	Solid	04/04/17 11:03	04/04/17 21:05
280-95486-8	RC4-SC-130	Solid	04/04/17 11:11	04/04/17 21:05
280-95486-9	RC4-SC-131	Solid	04/04/17 11:21	04/04/17 21:05
280-95486-10	RC4-SC-132	Solid	04/04/17 11:33	04/04/17 21:05
280-95486-11	RC4-SC-133	Solid	04/04/17 11:45	04/04/17 21:05
280-95486-12	RC4-SC-134	Solid	04/04/17 12:42	04/04/17 21:05
280-95486-13	RC4-SC-135	Solid	04/04/17 12:36	04/04/17 21:05
280-95486-14	RC4-SC-136	Solid	04/04/17 12:30	04/04/17 21:05
280-95486-15	RC4-SC-DUP8	Solid	04/04/17 11:00	04/04/17 21:05

Client 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)

Client Sample ID: RC4-SC-123 Date Collected: 04/04/17 10:04 Date Received: 04/04/17 21:05							Lab Sample ID: 280-95486-1 Matrix: Solid Percent Solids: 76.8		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	5.5		1.5	0.41	mg/Kg	☼	04/13/17 13:05	04/18/17 00:04	1
Surrogate	%Recovery	Qualifier	Limits						
a,a,a-Trifluorotoluene	75	X	77 - 123						
							04/13/17 13:05	04/18/17 00:04	1
Client Sample ID: RC4-SC-124 Date Collected: 04/04/17 10:15 Date Received: 04/04/17 21:05							Lab Sample ID: 280-95486-2 Matrix: Solid Percent Solids: 83.3		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	1.8		1.4	0.38	mg/Kg	☼	04/13/17 13:05	04/18/17 00:28	1
Surrogate	%Recovery	Qualifier	Limits						
a,a,a-Trifluorotoluene	74	X	77 - 123						
							04/13/17 13:05	04/18/17 00:28	1
Client Sample ID: RC4-SC-125 Date Collected: 04/04/17 10:23 Date Received: 04/04/17 21:05							Lab Sample ID: 280-95486-3 Matrix: Solid Percent Solids: 77.7		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	19		1.5	0.40	mg/Kg	☼	04/13/17 13:05	04/18/17 00:53	1
Surrogate	%Recovery	Qualifier	Limits						
a,a,a-Trifluorotoluene	75	X	77 - 123						
							04/13/17 13:05	04/18/17 00:53	1
Client Sample ID: RC4-SC-126 Date Collected: 04/04/17 10:30 Date Received: 04/04/17 21:05							Lab Sample ID: 280-95486-4 Matrix: Solid Percent Solids: 75.9		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	33		1.5	0.42	mg/Kg	☼	04/13/17 13:05	04/18/17 01:18	1
Surrogate	%Recovery	Qualifier	Limits						
a,a,a-Trifluorotoluene	93		77 - 123						
							04/13/17 13:05	04/18/17 01:18	1
Client Sample ID: RC4-SC-127 Date Collected: 04/04/17 10:42 Date Received: 04/04/17 21:05							Lab Sample ID: 280-95486-5 Matrix: Solid Percent Solids: 80.1		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	8.2		1.5	0.39	mg/Kg	☼	04/13/17 13:05	04/18/17 01:43	1
Surrogate	%Recovery	Qualifier	Limits						
a,a,a-Trifluorotoluene	74	X	77 - 123						
							04/13/17 13:05	04/18/17 01:43	1
Client Sample ID: RC4-SC-128 Date Collected: 04/04/17 10:50 Date Received: 04/04/17 21:05							Lab Sample ID: 280-95486-6 Matrix: Solid Percent Solids: 73.9		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	51		1.5	0.42	mg/Kg	☼	04/13/17 13:05	04/18/17 02:07	1
Surrogate	%Recovery	Qualifier	Limits						
a,a,a-Trifluorotoluene	105		77 - 123						
							04/13/17 13:05	04/18/17 02:07	1

TestAmerica Denver

Client 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)

Client Sample ID: RC4-SC-129

Date Collected: 04/04/17 11:03

Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-7

Matrix: Solid

Percent Solids: 70.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	60	F2	1.7	0.45	mg/Kg	☼	04/13/17 13:05	04/18/17 02:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	103		77 - 123				04/13/17 13:05	04/18/17 02:32	1

Client Sample ID: RC4-SC-130

Date Collected: 04/04/17 11:11

Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-8

Matrix: Solid

Percent Solids: 76.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	1.3	J	1.6	0.42	mg/Kg	☼	04/13/17 13:05	04/18/17 03:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	62	X	77 - 123				04/13/17 13:05	04/18/17 03:46	1

Client Sample ID: RC4-SC-131

Date Collected: 04/04/17 11:21

Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-9

Matrix: Solid

Percent Solids: 77.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	1.2	J	1.5	0.41	mg/Kg	☼	04/13/17 13:05	04/18/17 04:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	67	X	77 - 123				04/13/17 13:05	04/18/17 04:10	1

Client Sample ID: RC4-SC-132

Date Collected: 04/04/17 11:33

Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-10

Matrix: Solid

Percent Solids: 80.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	0.40	J	1.4	0.38	mg/Kg	☼	04/13/17 13:05	04/18/17 04:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	67	X	77 - 123				04/13/17 13:05	04/18/17 04:35	1

Client Sample ID: RC4-SC-133

Date Collected: 04/04/17 11:45

Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-11

Matrix: Solid

Percent Solids: 75.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	8.9		1.5	0.42	mg/Kg	☼	04/13/17 13:05	04/18/17 05:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	59	X	77 - 123				04/13/17 13:05	04/18/17 05:25	1

Client Sample ID: RC4-SC-134

Date Collected: 04/04/17 12:42

Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-12

Matrix: Solid

Percent Solids: 83.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	5.6		1.4	0.38	mg/Kg	☼	04/13/17 13:05	04/18/17 05:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	67	X	77 - 123				04/13/17 13:05	04/18/17 05:49	1

TestAmerica Denver

Client 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)

Client Sample ID: RC4-SC-135

Date Collected: 04/04/17 12:36

Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-13

Matrix: Solid

Percent Solids: 80.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	4.1		1.4	0.39	mg/Kg	☼	04/13/17 13:05	04/18/17 06:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	67	X	77 - 123	04/13/17 13:05	04/18/17 06:14	1

Client Sample ID: RC4-SC-136

Date Collected: 04/04/17 12:30

Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-14

Matrix: Solid

Percent Solids: 83.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.4	0.38	mg/Kg	☼	04/13/17 13:05	04/18/17 06:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	72	X	77 - 123	04/13/17 13:05	04/18/17 06:39	1

Client Sample ID: RC4-SC-DUP8

Date Collected: 04/04/17 11:00

Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-15

Matrix: Solid

Percent Solids: 62.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	93		3.8	1.0	mg/Kg	☼	04/13/17 13:05	04/18/17 07:04	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	122		77 - 123	04/13/17 13:05	04/18/17 07:04	2

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

Client Sample ID: RC4-SC-123

Date Collected: 04/04/17 10:04

Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-1

Matrix: Solid

Percent Solids: 76.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	62		4.9	0.84	mg/Kg	☼	04/06/17 13:00	04/11/17 06:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	113		49 - 115	04/06/17 13:00	04/11/17 06:28	1

Client Sample ID: RC4-SC-124

Date Collected: 04/04/17 10:15

Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-2

Matrix: Solid

Percent Solids: 83.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	8.0		4.5	0.77	mg/Kg	☼	04/06/17 13:00	04/11/17 06:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	96		49 - 115	04/06/17 13:00	04/11/17 06:53	1

Client Sample ID: RC4-SC-125

Date Collected: 04/04/17 10:23

Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-3

Matrix: Solid

Percent Solids: 77.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	43		5.0	0.84	mg/Kg	☼	04/06/17 13:00	04/11/17 07:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	134	X	49 - 115	04/06/17 13:00	04/11/17 07:17	1

TestAmerica Denver

Client 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)

Client Sample ID: RC4-SC-126
Date Collected: 04/04/17 10:30
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-4
Matrix: Solid
Percent Solids: 75.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	52		5.2	0.87	mg/Kg	☼	04/06/17 13:00	04/11/17 08:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	114		49 - 115				04/06/17 13:00	04/11/17 08:54	1

Client Sample ID: RC4-SC-127
Date Collected: 04/04/17 10:42
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-5
Matrix: Solid
Percent Solids: 80.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	6.4		4.8	0.82	mg/Kg	☼	04/06/17 13:00	04/11/17 09:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	108		49 - 115				04/06/17 13:00	04/11/17 09:19	1

Client Sample ID: RC4-SC-128
Date Collected: 04/04/17 10:50
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-6
Matrix: Solid
Percent Solids: 73.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	300		5.0	0.85	mg/Kg	☼	04/06/17 13:00	04/11/17 09:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	76		49 - 115				04/06/17 13:00	04/11/17 09:43	1

Client Sample ID: RC4-SC-129
Date Collected: 04/04/17 11:03
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-7
Matrix: Solid
Percent Solids: 70.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	370	F2	5.5	0.94	mg/Kg	☼	04/06/17 13:00	04/11/17 07:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	88		49 - 115				04/06/17 13:00	04/11/17 07:41	1

Client Sample ID: RC4-SC-130
Date Collected: 04/04/17 11:11
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-8
Matrix: Solid
Percent Solids: 76.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	33		5.0	0.85	mg/Kg	☼	04/06/17 13:00	04/11/17 22:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	93		49 - 115				04/06/17 13:00	04/11/17 22:19	1

Client Sample ID: RC4-SC-131
Date Collected: 04/04/17 11:21
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-9
Matrix: Solid
Percent Solids: 77.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	160		5.2	0.88	mg/Kg	☼	04/06/17 13:00	04/11/17 22:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	104		49 - 115				04/06/17 13:00	04/11/17 22:43	1

TestAmerica Denver

Client 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)

Client Sample ID: RC4-SC-132
Date Collected: 04/04/17 11:33
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-10
Matrix: Solid
Percent Solids: 80.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	190		5.0	0.84	mg/Kg	☼	04/06/17 13:00	04/11/17 23:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	77		49 - 115				04/06/17 13:00	04/11/17 23:08	1

Client Sample ID: RC4-SC-133
Date Collected: 04/04/17 11:45
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-11
Matrix: Solid
Percent Solids: 75.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	61		5.3	0.90	mg/Kg	☼	04/06/17 13:00	04/11/17 23:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	87		49 - 115				04/06/17 13:00	04/11/17 23:32	1

Client Sample ID: RC4-SC-134
Date Collected: 04/04/17 12:42
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-12
Matrix: Solid
Percent Solids: 83.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	350		4.6	0.77	mg/Kg	☼	04/06/17 13:00	04/11/17 23:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	71		49 - 115				04/06/17 13:00	04/11/17 23:57	1

Client Sample ID: RC4-SC-135
Date Collected: 04/04/17 12:36
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-13
Matrix: Solid
Percent Solids: 80.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	22		4.6	0.78	mg/Kg	☼	04/06/17 13:00	04/12/17 01:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	112		49 - 115				04/06/17 13:00	04/12/17 01:10	1

Client Sample ID: RC4-SC-136
Date Collected: 04/04/17 12:30
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-14
Matrix: Solid
Percent Solids: 83.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	14		4.8	0.81	mg/Kg	☼	04/06/17 13:00	04/12/17 01:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	80		49 - 115				04/06/17 13:00	04/12/17 01:35	1

Client Sample ID: RC4-SC-DUP8
Date Collected: 04/04/17 11:00
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-15
Matrix: Solid
Percent Solids: 62.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	470		6.0	1.0	mg/Kg	☼	04/06/17 13:00	04/12/17 02:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	82		49 - 115				04/06/17 13:00	04/12/17 02:00	1

TestAmerica Denver

Client Sample Results

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

TestAmerica Job ID: 280-95486-1

General Chemistry

Client Sample ID: RC4-SC-123
Date Collected: 04/04/17 10:04
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-1
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	%			04/05/17 08:18	1
Percent Solids	76.8		0.1	0.1	%			04/05/17 08:18	1

Client Sample ID: RC4-SC-124
Date Collected: 04/04/17 10:15
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-2
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	%			04/05/17 08:18	1
Percent Solids	83.3		0.1	0.1	%			04/05/17 08:18	1

Client Sample ID: RC4-SC-125
Date Collected: 04/04/17 10:23
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-3
Matrix: Solid
Percent Solids: 77.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22.3		0.1	0.1	%			04/05/17 08:18	1
Percent Solids	77.7		0.1	0.1	%			04/05/17 08:18	1

Client Sample ID: RC4-SC-126
Date Collected: 04/04/17 10:30
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-4
Matrix: Solid
Percent Solids: 75.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24.1		0.1	0.1	%			04/05/17 08:18	1
Percent Solids	75.9		0.1	0.1	%			04/05/17 08:18	1

Client Sample ID: RC4-SC-127
Date Collected: 04/04/17 10:42
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-5
Matrix: Solid
Percent Solids: 80.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.9		0.1	0.1	%			04/05/17 08:18	1
Percent Solids	80.1		0.1	0.1	%			04/05/17 08:18	1

Client Sample ID: RC4-SC-128
Date Collected: 04/04/17 10:50
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-6
Matrix: Solid
Percent Solids: 73.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	26.1		0.1	0.1	%			04/05/17 08:18	1
Percent Solids	73.9		0.1	0.1	%			04/05/17 08:18	1

Client Sample ID: RC4-SC-129
Date Collected: 04/04/17 11:03
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-7
Matrix: Solid
Percent Solids: 70.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	29.8		0.1	0.1	%			04/05/17 08:18	1
Percent Solids	70.2		0.1	0.1	%			04/05/17 08:18	1

Client Sample ID: RC4-SC-130
Date Collected: 04/04/17 11:11
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-8
Matrix: Solid
Percent Solids: 76.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23.7		0.1	0.1	%			04/05/17 08:18	1
Percent Solids	76.3		0.1	0.1	%			04/05/17 08:18	1

TestAmerica Denver

Client Sample Results

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

TestAmerica Job ID: 280-95486-1

General Chemistry

Client Sample ID: RC4-SC-131
Date Collected: 04/04/17 11:21
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-9
Matrix: Solid
Percent Solids: 77.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22.7		0.1	0.1	%			04/05/17 08:18	1
Percent Solids	77.3		0.1	0.1	%			04/05/17 08:18	1

Client Sample ID: RC4-SC-132
Date Collected: 04/04/17 11:33
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-10
Matrix: Solid
Percent Solids: 80.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.8		0.1	0.1	%			04/05/17 08:18	1
Percent Solids	80.2		0.1	0.1	%			04/05/17 08:18	1

Client Sample ID: RC4-SC-133
Date Collected: 04/04/17 11:45
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-11
Matrix: Solid
Percent Solids: 75.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24.9		0.1	0.1	%			04/05/17 08:18	1
Percent Solids	75.1		0.1	0.1	%			04/05/17 08:18	1

Client Sample ID: RC4-SC-134
Date Collected: 04/04/17 12:42
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-12
Matrix: Solid
Percent Solids: 83.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.9		0.1	0.1	%			04/05/17 08:18	1
Percent Solids	83.1		0.1	0.1	%			04/05/17 08:18	1

Client Sample ID: RC4-SC-135
Date Collected: 04/04/17 12:36
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-13
Matrix: Solid
Percent Solids: 80.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.5		0.1	0.1	%			04/05/17 08:18	1
Percent Solids	80.5		0.1	0.1	%			04/05/17 08:18	1

Client Sample ID: RC4-SC-136
Date Collected: 04/04/17 12:30
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-14
Matrix: Solid
Percent Solids: 83.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.0		0.1	0.1	%			04/05/17 08:18	1
Percent Solids	83.0		0.1	0.1	%			04/05/17 08:18	1

Client Sample ID: RC4-SC-DUP8
Date Collected: 04/04/17 11:00
Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-15
Matrix: Solid
Percent Solids: 62.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	37.5		0.1	0.1	%			04/05/17 08:18	1
Percent Solids	62.5		0.1	0.1	%			04/05/17 08:18	1

TestAmerica Denver

Surrogate Summary

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)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	TFT1 (77-123)
280-95486-1	RC4-SC-123	75 X
280-95486-2	RC4-SC-124	74 X
280-95486-3	RC4-SC-125	75 X
280-95486-4	RC4-SC-126	93
280-95486-5	RC4-SC-127	74 X
280-95486-6	RC4-SC-128	105
280-95486-7	RC4-SC-129	103
280-95486-7 MS	RC4-SC-129	108
280-95486-7 MSD	RC4-SC-129	139 X
280-95486-8	RC4-SC-130	62 X
280-95486-9	RC4-SC-131	67 X
280-95486-10	RC4-SC-132	67 X
280-95486-11	RC4-SC-133	59 X
280-95486-12	RC4-SC-134	67 X
280-95486-13	RC4-SC-135	67 X
280-95486-14	RC4-SC-136	72 X
280-95486-15	RC4-SC-DUP8	122
LCS 280-369286/2-A	Lab Control Sample	94
MB 280-369286/1-A	Method Blank	99

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)
280-95486-1	RC4-SC-123	113
280-95486-2	RC4-SC-124	96
280-95486-3	RC4-SC-125	134 X
280-95486-4	RC4-SC-126	114
280-95486-5	RC4-SC-127	108
280-95486-6	RC4-SC-128	76
280-95486-7	RC4-SC-129	88
280-95486-7 MS	RC4-SC-129	92
280-95486-7 MSD	RC4-SC-129	84
280-95486-8	RC4-SC-130	93
280-95486-9	RC4-SC-131	104
280-95486-10	RC4-SC-132	77
280-95486-11	RC4-SC-133	87
280-95486-12	RC4-SC-134	71
280-95486-13	RC4-SC-135	112
280-95486-14	RC4-SC-136	80
280-95486-15	RC4-SC-DUP8	82
LCS 280-368299/2-A	Lab Control Sample	123 X
MB 280-368299/1-A	Method Blank	120 X

Surrogate Legend

TestAmerica Denver

Surrogate Summary

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

TestAmerica Job ID: 280-95486-1

OTPH = o-Terphenyl (Surr)

1
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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 280-369286/1-A

Matrix: Solid

Analysis Batch: 369634

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 369286

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	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	99		77 - 123				04/13/17 13:05	04/17/17 23:14	1

Lab Sample ID: LCS 280-369286/2-A

Matrix: Solid

Analysis Batch: 369634

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 369286

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
GRO (C6-C10)	5.50	7.07		mg/Kg		129	85 - 153
Surrogate	%Recovery	LCS Qualifier	Limits				
a,a,a-Trifluorotoluene	94		77 - 123				

Lab Sample ID: 280-95486-7 MS

Matrix: Solid

Analysis Batch: 369634

Client Sample ID: RC4-SC-129

Prep Type: Total/NA

Prep Batch: 369286

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%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	108		77 - 123						

Lab Sample ID: 280-95486-7 MSD

Matrix: Solid

Analysis Batch: 369634

Client Sample ID: RC4-SC-129

Prep Type: Total/NA

Prep Batch: 369286

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%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	139	X	77 - 123								

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

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	%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

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 280-368299/2-A
Matrix: Solid
Analysis Batch: 368913

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 368299
%Rec.

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				

Lab Sample ID: 280-95486-7 MS
Matrix: Solid
Analysis Batch: 368632

Client Sample ID: RC4-SC-129
Prep Type: Total/NA
Prep Batch: 368299
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%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)	92		49 - 115								

Lab Sample ID: 280-95486-7 MSD
Matrix: Solid
Analysis Batch: 368632

Client Sample ID: RC4-SC-129
Prep Type: Total/NA
Prep Batch: 368299
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%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)	84		49 - 115								

Method: Moisture - Percent Moisture

Lab Sample ID: 280-95486-1 DU
Matrix: Solid
Analysis Batch: 368109

Client Sample ID: RC4-SC-123
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Percent Moisture	23.2		25.1		%		8	20
Percent Solids	76.8		74.9		%		3	20

TestAmerica Denver

QC Association Summary

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

TestAmerica Job ID: 280-95486-1

GC VOA

Prep Batch: 369286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95486-1	RC4-SC-123	Total/NA	Solid	5030A	
280-95486-2	RC4-SC-124	Total/NA	Solid	5030A	
280-95486-3	RC4-SC-125	Total/NA	Solid	5030A	
280-95486-4	RC4-SC-126	Total/NA	Solid	5030A	
280-95486-5	RC4-SC-127	Total/NA	Solid	5030A	
280-95486-6	RC4-SC-128	Total/NA	Solid	5030A	
280-95486-7	RC4-SC-129	Total/NA	Solid	5030A	
280-95486-8	RC4-SC-130	Total/NA	Solid	5030A	
280-95486-9	RC4-SC-131	Total/NA	Solid	5030A	
280-95486-10	RC4-SC-132	Total/NA	Solid	5030A	
280-95486-11	RC4-SC-133	Total/NA	Solid	5030A	
280-95486-12	RC4-SC-134	Total/NA	Solid	5030A	
280-95486-13	RC4-SC-135	Total/NA	Solid	5030A	
280-95486-14	RC4-SC-136	Total/NA	Solid	5030A	
280-95486-15	RC4-SC-DUP8	Total/NA	Solid	5030A	
MB 280-369286/1-A	Method Blank	Total/NA	Solid	5030A	
LCS 280-369286/2-A	Lab Control Sample	Total/NA	Solid	5030A	
280-95486-7 MS	RC4-SC-129	Total/NA	Solid	5030A	
280-95486-7 MSD	RC4-SC-129	Total/NA	Solid	5030A	

Analysis Batch: 369634

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95486-1	RC4-SC-123	Total/NA	Solid	8015C	369286
280-95486-2	RC4-SC-124	Total/NA	Solid	8015C	369286
280-95486-3	RC4-SC-125	Total/NA	Solid	8015C	369286
280-95486-4	RC4-SC-126	Total/NA	Solid	8015C	369286
280-95486-5	RC4-SC-127	Total/NA	Solid	8015C	369286
280-95486-6	RC4-SC-128	Total/NA	Solid	8015C	369286
280-95486-7	RC4-SC-129	Total/NA	Solid	8015C	369286
280-95486-8	RC4-SC-130	Total/NA	Solid	8015C	369286
280-95486-9	RC4-SC-131	Total/NA	Solid	8015C	369286
280-95486-10	RC4-SC-132	Total/NA	Solid	8015C	369286
280-95486-11	RC4-SC-133	Total/NA	Solid	8015C	369286
280-95486-12	RC4-SC-134	Total/NA	Solid	8015C	369286
280-95486-13	RC4-SC-135	Total/NA	Solid	8015C	369286
280-95486-14	RC4-SC-136	Total/NA	Solid	8015C	369286
280-95486-15	RC4-SC-DUP8	Total/NA	Solid	8015C	369286
MB 280-369286/1-A	Method Blank	Total/NA	Solid	8015C	369286
LCS 280-369286/2-A	Lab Control Sample	Total/NA	Solid	8015C	369286
280-95486-7 MS	RC4-SC-129	Total/NA	Solid	8015C	369286
280-95486-7 MSD	RC4-SC-129	Total/NA	Solid	8015C	369286

GC Semi VOA

Prep Batch: 368299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95486-1	RC4-SC-123	Total/NA	Solid	3546	
280-95486-2	RC4-SC-124	Total/NA	Solid	3546	
280-95486-3	RC4-SC-125	Total/NA	Solid	3546	
280-95486-4	RC4-SC-126	Total/NA	Solid	3546	

TestAmerica Denver

QC Association Summary

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

TestAmerica Job ID: 280-95486-1

GC Semi VOA (Continued)

Prep Batch: 368299 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95486-5	RC4-SC-127	Total/NA	Solid	3546	
280-95486-6	RC4-SC-128	Total/NA	Solid	3546	
280-95486-7	RC4-SC-129	Total/NA	Solid	3546	
280-95486-8	RC4-SC-130	Total/NA	Solid	3546	
280-95486-9	RC4-SC-131	Total/NA	Solid	3546	
280-95486-10	RC4-SC-132	Total/NA	Solid	3546	
280-95486-11	RC4-SC-133	Total/NA	Solid	3546	
280-95486-12	RC4-SC-134	Total/NA	Solid	3546	
280-95486-13	RC4-SC-135	Total/NA	Solid	3546	
280-95486-14	RC4-SC-136	Total/NA	Solid	3546	
280-95486-15	RC4-SC-DUP8	Total/NA	Solid	3546	
MB 280-368299/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-368299/2-A	Lab Control Sample	Total/NA	Solid	3546	
280-95486-7 MS	RC4-SC-129	Total/NA	Solid	3546	
280-95486-7 MSD	RC4-SC-129	Total/NA	Solid	3546	

Analysis Batch: 368632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95486-1	RC4-SC-123	Total/NA	Solid	8015C	368299
280-95486-2	RC4-SC-124	Total/NA	Solid	8015C	368299
280-95486-3	RC4-SC-125	Total/NA	Solid	8015C	368299
280-95486-4	RC4-SC-126	Total/NA	Solid	8015C	368299
280-95486-5	RC4-SC-127	Total/NA	Solid	8015C	368299
280-95486-6	RC4-SC-128	Total/NA	Solid	8015C	368299
280-95486-7	RC4-SC-129	Total/NA	Solid	8015C	368299
280-95486-7 MS	RC4-SC-129	Total/NA	Solid	8015C	368299
280-95486-7 MSD	RC4-SC-129	Total/NA	Solid	8015C	368299

Analysis Batch: 368913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95486-8	RC4-SC-130	Total/NA	Solid	8015C	368299
280-95486-9	RC4-SC-131	Total/NA	Solid	8015C	368299
280-95486-10	RC4-SC-132	Total/NA	Solid	8015C	368299
280-95486-11	RC4-SC-133	Total/NA	Solid	8015C	368299
280-95486-12	RC4-SC-134	Total/NA	Solid	8015C	368299
280-95486-13	RC4-SC-135	Total/NA	Solid	8015C	368299
280-95486-14	RC4-SC-136	Total/NA	Solid	8015C	368299
280-95486-15	RC4-SC-DUP8	Total/NA	Solid	8015C	368299
MB 280-368299/1-A	Method Blank	Total/NA	Solid	8015C	368299
LCS 280-368299/2-A	Lab Control Sample	Total/NA	Solid	8015C	368299

General Chemistry

Analysis Batch: 368109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95486-1	RC4-SC-123	Total/NA	Solid	Moisture	
280-95486-2	RC4-SC-124	Total/NA	Solid	Moisture	
280-95486-3	RC4-SC-125	Total/NA	Solid	Moisture	
280-95486-4	RC4-SC-126	Total/NA	Solid	Moisture	
280-95486-5	RC4-SC-127	Total/NA	Solid	Moisture	

TestAmerica Denver

QC Association Summary

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

TestAmerica Job ID: 280-95486-1

General Chemistry (Continued)

Analysis Batch: 368109 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95486-6	RC4-SC-128	Total/NA	Solid	Moisture	
280-95486-7	RC4-SC-129	Total/NA	Solid	Moisture	
280-95486-8	RC4-SC-130	Total/NA	Solid	Moisture	
280-95486-9	RC4-SC-131	Total/NA	Solid	Moisture	
280-95486-10	RC4-SC-132	Total/NA	Solid	Moisture	
280-95486-11	RC4-SC-133	Total/NA	Solid	Moisture	
280-95486-12	RC4-SC-134	Total/NA	Solid	Moisture	
280-95486-13	RC4-SC-135	Total/NA	Solid	Moisture	
280-95486-14	RC4-SC-136	Total/NA	Solid	Moisture	
280-95486-15	RC4-SC-DUP8	Total/NA	Solid	Moisture	
280-95486-1 DU	RC4-SC-123	Total/NA	Solid	Moisture	

Lab Chronicle

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

TestAmerica Job ID: 280-95486-1

Client Sample ID: RC4-SC-123

Date Collected: 04/04/17 10:04

Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-1

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	Moisture		1			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-123

Date Collected: 04/04/17 10:04

Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-1

Matrix: Solid

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	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-124

Date Collected: 04/04/17 10:15

Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-2

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	Moisture		1			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-124

Date Collected: 04/04/17 10:15

Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-2

Matrix: Solid

Percent Solids: 83.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			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-125

Date Collected: 04/04/17 10:23

Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-3

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	Moisture		1			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-125

Date Collected: 04/04/17 10:23

Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-3

Matrix: Solid

Percent Solids: 77.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			5.23 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-125

Lab Sample ID: 280-95486-3

Date Collected: 04/04/17 10:23

Matrix: Solid

Date Received: 04/04/17 21:05

Percent Solids: 77.7

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	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-126

Lab Sample ID: 280-95486-4

Date Collected: 04/04/17 10:30

Matrix: Solid

Date Received: 04/04/17 21:05

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			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-126

Lab Sample ID: 280-95486-4

Date Collected: 04/04/17 10:30

Matrix: Solid

Date Received: 04/04/17 21:05

Percent Solids: 75.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			5.14 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-127

Lab Sample ID: 280-95486-5

Date Collected: 04/04/17 10:42

Matrix: Solid

Date Received: 04/04/17 21:05

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			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-127

Lab Sample ID: 280-95486-5

Date Collected: 04/04/17 10:42

Matrix: Solid

Date Received: 04/04/17 21:05

Percent Solids: 80.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			5.16 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-128

Date Collected: 04/04/17 10:50

Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-6

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			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-128

Date Collected: 04/04/17 10:50

Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-6

Matrix: Solid

Percent Solids: 73.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			5.26 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-129

Date Collected: 04/04/17 11:03

Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-7

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			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-129

Date Collected: 04/04/17 11:03

Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-7

Matrix: Solid

Percent Solids: 70.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			5.17 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-130

Date Collected: 04/04/17 11:11

Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-8

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			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-130

Date Collected: 04/04/17 11:11

Date Received: 04/04/17 21:05

Lab Sample ID: 280-95486-8

Matrix: Solid

Percent Solids: 76.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			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-130

Lab Sample ID: 280-95486-8

Date Collected: 04/04/17 11:11

Matrix: Solid

Date Received: 04/04/17 21:05

Percent Solids: 76.3

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	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-131

Lab Sample ID: 280-95486-9

Date Collected: 04/04/17 11:21

Matrix: Solid

Date Received: 04/04/17 21:05

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			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-131

Lab Sample ID: 280-95486-9

Date Collected: 04/04/17 11:21

Matrix: Solid

Date Received: 04/04/17 21:05

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/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-132

Lab Sample ID: 280-95486-10

Date Collected: 04/04/17 11:33

Matrix: Solid

Date Received: 04/04/17 21:05

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			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-132

Lab Sample ID: 280-95486-10

Date Collected: 04/04/17 11:33

Matrix: Solid

Date Received: 04/04/17 21:05

Percent Solids: 80.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			5.28 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-133

Lab Sample ID: 280-95486-11

Date Collected: 04/04/17 11:45

Matrix: Solid

Date Received: 04/04/17 21:05

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			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-133

Lab Sample ID: 280-95486-11

Date Collected: 04/04/17 11:45

Matrix: Solid

Date Received: 04/04/17 21:05

Percent Solids: 75.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			5.21 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-134

Lab Sample ID: 280-95486-12

Date Collected: 04/04/17 12:42

Matrix: Solid

Date Received: 04/04/17 21:05

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			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-134

Lab Sample ID: 280-95486-12

Date Collected: 04/04/17 12:42

Matrix: Solid

Date Received: 04/04/17 21:05

Percent Solids: 83.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			5.15 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-135

Lab Sample ID: 280-95486-13

Date Collected: 04/04/17 12:36

Matrix: Solid

Date Received: 04/04/17 21:05

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			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-135

Lab Sample ID: 280-95486-13

Date Collected: 04/04/17 12:36

Matrix: Solid

Date Received: 04/04/17 21:05

Percent Solids: 80.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			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-135

Lab Sample ID: 280-95486-13

Date Collected: 04/04/17 12:36

Matrix: Solid

Date Received: 04/04/17 21:05

Percent Solids: 80.5

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	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-136

Lab Sample ID: 280-95486-14

Date Collected: 04/04/17 12:30

Matrix: Solid

Date Received: 04/04/17 21:05

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			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-136

Lab Sample ID: 280-95486-14

Date Collected: 04/04/17 12:30

Matrix: Solid

Date Received: 04/04/17 21:05

Percent Solids: 83.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			5.18 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-DUP8

Lab Sample ID: 280-95486-15

Date Collected: 04/04/17 11:00

Matrix: Solid

Date Received: 04/04/17 21:05

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			368109	04/05/17 08:18	PAH	TAL DEN

Client Sample ID: RC4-SC-DUP8

Lab Sample ID: 280-95486-15

Date Collected: 04/04/17 11:00

Matrix: Solid

Date Received: 04/04/17 21:05

Percent Solids: 62.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			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.
Project/Site: Stantec CVX - Rangely, CO

TestAmerica Job ID: 280-95486-1

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

TestAmerica Irvine
17461 Merian Ave
Suite 100
Irvine, CA 92614
Phone: 949.261.1022 Fax:

Chain of Custody Record

140338

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (07/13)

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

Client Contact		Project Manager: Bethany Lucette		Site Contact: Bethany Lucette		Date: 4/4/17		COC No: 1 of 5 COCs	
Company Name: Starter		Tel/Fax: 303 250-4118		Lab Contact: Samie Wie		Carrier: Courier		Sampler:	
Address: 200 South Colorado Blvd. #2-300		Analysis Turnaround Time		Filtered Sample (Y/N)		Perform MS/MSD (Y/N)		For Lab Use Only:	
City/State/Zip: Denver CO 80202		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		Matrix		TAT if different from Below		Walk-in Client:	
Phone: 303-758-4058		2 weeks		Sample Type (C-Comp, G-Grab)		1 week		Lab Sampling:	
Fax: 303-758-4828		2 days		Sample Time		1 day		Job / SDG No.:	
Project Name: CPL-Rangely - C-4		Sample Date		Sample Time		# of Cont.		Sample Specific Notes:	
Site: CPL-Rangely		Sample Date		Sample Time		# of Cont.			
PO # 2037201021		Sample Date		Sample Time		# of Cont.			
RC4-SC-123		4/4/17	1004	G-1	Seal	2	N	X	
RC4-SC-124			1015			2	N	X	
RC4-SC-125			1023			2	N	X	
RC4-SC-126			1030			2	N	X	
RC4-SC-127			1042			2	N	X	
RC4-SC-128			1050			2	N	X	
RC4-SC-129			1103			6	N	X	
RC4-SC-130			1111			2	N	X	
RC4-SC-131			1121			2	N	X	
RC4-SC-132			1133			2	N	X	
RC4-SC-133			1145			2	N	X	
RC4-SC-134			1242			2	N	X	

Barcode: 280-95486 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.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seal No.: _____

Custody Seal Intact: ☐ Yes ☐ No

Relinquished by: _____ Date/Time: _____

Relinquished by: _____ Date/Time: _____

Relinquished by: _____ Date/Time: _____

Received by: _____ Date/Time: _____

Received by: _____ Date/Time: _____

Received in Laboratory by: _____ Date/Time: _____

Company: _____

Company: _____

Company: _____

Therm ID No.: _____

Corr'd: _____

Obs'd: _____

4.1 4.1 7

Chain of Custody Record

140337

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

Client Contact		Project Manager: Bethany Lucante		Site Contact: Bethany Lucante		COC No: 2 of 2 COCs	
Company Name: Stantec		Tel/Fax: 303-250-4718		Lab Contact: Sam Yick		Carrier: Courier	
Address: 2000 South Colorado Blvd., #2-300		Analysis Turnaround Time		Perform MS / MSD (Y / N)		For Lab Use Only:	
City/State/Zip: Denver, CO 80222		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		Filtered Sample (Y / N)		Walk-in Client:	
Phone: 303-758-4058		TAT if different from Below		Perform MS / MSD (Y / N)		Lab Sampling:	
Fax: 303-758-4028		<input checked="" type="checkbox"/> 2 weeks		Filtered Sample (Y / N)		Job / SDG No.:	
Project Name: CPL-Rangel - C-4		<input type="checkbox"/> 1 week		Filtered Sample (Y / N)			
Site: CPL-Rangel		<input type="checkbox"/> 2 days		Filtered Sample (Y / N)			
PO # 203720162		<input type="checkbox"/> 1 day		Filtered Sample (Y / N)			
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sample Specific Notes:	
RC4-SL-135	4/4/17	1236	G	Soil	2	X	
RC4-SL-136	↓	1230	↓	↓	2	X	
RC4-SL-DUPB	↓	1100	↓	↓	2	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 checked="" 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:		Therm ID No.:	
Relinquished by: Mike Stathamer / WTA		Company: Stantec		Received by: [Signature]		Company: TAD	
Relinquished by:		Date/Time: 1345/4/17		Received by:		Date/Time: 4-4-17 2105	
Relinquished by:		Date/Time:		Received in Laboratory by:		Date/Time:	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-95486-1

Login Number: 95486

List Number: 1

Creator: Pottruff, Reed W

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.	False	Refer to Job Narrative for details.
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: 280-95794-1

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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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.

Table of Contents

Cover Page 1

Table of Contents 2

Definitions 3

Case Narrative 4

Detection Summary 5

Method Summary 7

Sample Summary 8

Client Sample Results 9

Surrogate Summary 15

QC Sample Results 16

QC Association 18

Chronicle 20

Certification Summary 25

Chain of Custody 26

Receipt Checklists 28



Definitions/Glossary

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

TestAmerica Job ID: 280-95794-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

GC Semi VOA

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 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: 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-137

Lab Sample ID: 280-95794-1

Analyte	Result	Qualifier	RL	MDL	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-138

Lab Sample ID: 280-95794-2

Analyte	Result	Qualifier	RL	MDL	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-139

Lab Sample ID: 280-95794-3

Analyte	Result	Qualifier	RL	MDL	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-140

Lab Sample ID: 280-95794-4

Analyte	Result	Qualifier	RL	MDL	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-141

Lab Sample ID: 280-95794-5

Analyte	Result	Qualifier	RL	MDL	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-142

Lab Sample ID: 280-95794-6

Analyte	Result	Qualifier	RL	MDL	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-143

Lab Sample ID: 280-95794-7

Analyte	Result	Qualifier	RL	MDL	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-144

Lab Sample ID: 280-95794-8

Analyte	Result	Qualifier	RL	MDL	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-145

Lab Sample ID: 280-95794-9

Analyte	Result	Qualifier	RL	MDL	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-146

Lab Sample ID: 280-95794-10

Analyte	Result	Qualifier	RL	MDL	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-147

Lab Sample ID: 280-95794-11

Analyte	Result	Qualifier	RL	MDL	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

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	67	X	77 - 123				04/18/17 16:54	04/19/17 17:18	1

Lab Sample ID: 280-95794-1

Matrix: Solid

Percent Solids: 82.1

Client Sample ID: RC4-SC-138

Date Collected: 04/11/17 14:45

Date Received: 04/12/17 08:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.5	0.40	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	70	X	77 - 123				04/18/17 16:54	04/19/17 17:43	1

Lab Sample ID: 280-95794-2

Matrix: Solid

Percent Solids: 76.8

Client Sample ID: RC4-SC-139

Date Collected: 04/11/17 14:50

Date Received: 04/12/17 08:45

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	70	X	77 - 123				04/18/17 16:54	04/19/17 18:08	1

Lab Sample ID: 280-95794-3

Matrix: Solid

Percent Solids: 69.8

Client Sample ID: RC4-SC-140

Date Collected: 04/11/17 14:55

Date Received: 04/12/17 08:45

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	64	X	77 - 123				04/18/17 16:54	04/19/17 18:33	1

Lab Sample ID: 280-95794-4

Matrix: Solid

Percent Solids: 69.0

Client Sample ID: RC4-SC-141

Date Collected: 04/11/17 15:00

Date Received: 04/12/17 08:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.5	0.41	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	62	X	77 - 123				04/18/17 16:54	04/19/17 18:58	1

Lab Sample ID: 280-95794-5

Matrix: Solid

Percent Solids: 82.6

Client Sample ID: RC4-SC-142

Date Collected: 04/11/17 15:05

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 19:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	73	X	77 - 123				04/18/17 16:54	04/19/17 19:23	1

Lab Sample ID: 280-95794-6

Matrix: Solid

Percent Solids: 82.7

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

Lab Sample ID: 280-95794-7
Matrix: Solid
Percent Solids: 83.9

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	97		77 - 123				04/18/17 16:54	04/19/17 16:52	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
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	71	X	77 - 123				04/18/17 16:54	04/19/17 19:48	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
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	63	X	77 - 123				04/18/17 16:54	04/19/17 20:12	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
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	69	X	77 - 123				04/18/17 16:54	04/19/17 21:02	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
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	70	X	77 - 123				04/18/17 16:54	04/19/17 22:16	1

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

Lab Sample ID: 280-95794-1
Matrix: Solid
Percent Solids: 82.1

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 (Surr)	56		49 - 115				04/13/17 11:07	04/17/17 18:18	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-Terphenyl (Surr)	50		49 - 115	04/13/17 11:07	04/17/17 19:33	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-Terphenyl (Surr)	91		49 - 115	04/13/17 11:07	04/17/17 19:57	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-Terphenyl (Surr)	54		49 - 115	04/13/17 11:07	04/17/17 20:22	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-Terphenyl (Surr)	61		49 - 115	04/13/17 11:07	04/17/17 20:47	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-Terphenyl (Surr)	52		49 - 115	04/13/17 11:07	04/17/17 22:01	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-Terphenyl (Surr)	71		49 - 115	04/13/17 11:07	04/17/17 22:26	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> -Terphenyl (Surr)	114		49 - 115				04/13/17 11:07	04/17/17 22:51	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> -Terphenyl (Surr)	89		49 - 115				04/13/17 11:07	04/17/17 23:15	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> -Terphenyl (Surr)	92		49 - 115				04/13/17 11:07	04/17/17 23:40	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> -Terphenyl (Surr)	86		49 - 115				04/13/17 11:07	04/18/17 00:04	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 280-369883/1-A

Matrix: Solid

Analysis Batch: 370069

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 369883

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.2	0.33	mg/Kg		04/18/17 16:54	04/19/17 16:02	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	84		77 - 123				04/18/17 16:54	04/19/17 16:02	1

Lab Sample ID: LCS 280-369883/2-A

Matrix: Solid

Analysis Batch: 370069

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 369883

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
GRO (C6-C10)	5.50	6.63		mg/Kg		121	85 - 153		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
a,a,a-Trifluorotoluene	86		77 - 123						

Lab Sample ID: 280-95794-10 MSD

Matrix: Solid

Analysis Batch: 370069

Client Sample ID: RC4-SC-146

Prep Type: Total/NA

Prep Batch: 369883

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
GRO (C6-C10)	ND		6.62	5.75		mg/Kg	☼	87	85 - 153	12	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
a,a,a-Trifluorotoluene	60	X	77 - 123								

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

Lab Sample ID: MB 280-369208/1-A

Matrix: Solid

Analysis Batch: 369699

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 369208

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		4.0	0.68	mg/Kg		04/13/17 11:07	04/17/17 17:29	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	114		49 - 115				04/13/17 11:07	04/17/17 17:29	1

Lab Sample ID: LCS 280-369208/2-A

Matrix: Solid

Analysis Batch: 369699

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 369208

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
DRO (C10-C28)	66.7	66.4		mg/Kg		100	53 - 115		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
o-Terphenyl (Surr)	117	X	49 - 115						

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: 280-95794-1 MS

Matrix: Solid

Analysis Batch: 369699

Client Sample ID: RC4-SC-137

Prep Type: Total/NA

Prep Batch: 369208

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
DRO (C10-C28)	13	F1	74.2	51.8	F1	mg/Kg	☼	52	56 - 115
Surrogate	MS %Recovery	MS Qualifier	Limits						
<i>o</i> -Terphenyl (Surr)	59		49 - 115						

Lab Sample ID: 280-95794-1 MSD

Matrix: Solid

Analysis Batch: 369699

Client Sample ID: RC4-SC-137

Prep Type: Total/NA

Prep Batch: 369208

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%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								
<i>o</i> -Terphenyl (Surr)	73		49 - 115								

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-137

Date Collected: 04/11/17 14:40

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-1

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	Moisture		1			370090	04/19/17 18:44	SVC	TAL DEN

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			5.19 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-138

Date Collected: 04/11/17 14:45

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-2

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	Moisture		1			370090	04/19/17 18:44	SVC	TAL DEN

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			5.27 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-139

Date Collected: 04/11/17 14:50

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95794-3

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	Moisture		1			370090	04/19/17 18:44	SVC	TAL DEN

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			4.74 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-139

Lab Sample ID: 280-95794-3

Date Collected: 04/11/17 14:50

Matrix: Solid

Date Received: 04/12/17 08:45

Percent Solids: 69.8

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	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-140

Lab Sample ID: 280-95794-4

Date Collected: 04/11/17 14:55

Matrix: Solid

Date Received: 04/12/17 08:45

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			370090	04/19/17 18:44	SVC	TAL DEN

Client Sample ID: RC4-SC-140

Lab Sample ID: 280-95794-4

Date Collected: 04/11/17 14:55

Matrix: Solid

Date Received: 04/12/17 08:45

Percent Solids: 69.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			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

Lab Sample ID: 280-95794-5

Date Collected: 04/11/17 15:00

Matrix: Solid

Date Received: 04/12/17 08:45

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			370090	04/19/17 18:44	SVC	TAL DEN

Client Sample ID: RC4-SC-141

Lab Sample ID: 280-95794-5

Date Collected: 04/11/17 15:00

Matrix: Solid

Date Received: 04/12/17 08:45

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	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-142

Lab Sample ID: 280-95794-6

Date Collected: 04/11/17 15:05

Matrix: Solid

Date Received: 04/12/17 08:45

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			370090	04/19/17 18:44	SVC	TAL DEN

Client Sample ID: RC4-SC-142

Lab Sample ID: 280-95794-6

Date Collected: 04/11/17 15:05

Matrix: Solid

Date Received: 04/12/17 08:45

Percent Solids: 82.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			5.17 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-143

Lab Sample ID: 280-95794-7

Date Collected: 04/11/17 15:10

Matrix: Solid

Date Received: 04/12/17 08:45

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			370230	04/20/17 13:39	PAH	TAL DEN

Client Sample ID: RC4-SC-143

Lab Sample ID: 280-95794-7

Date Collected: 04/11/17 15:10

Matrix: Solid

Date Received: 04/12/17 08:45

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	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

Lab Sample ID: 280-95794-8

Date Collected: 04/11/17 15:15

Matrix: Solid

Date Received: 04/12/17 08:45

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			370090	04/19/17 18:44	SVC	TAL DEN

Client Sample ID: RC4-SC-144

Lab Sample ID: 280-95794-8

Date Collected: 04/11/17 15:15

Matrix: Solid

Date Received: 04/12/17 08:45

Percent Solids: 85.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			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: 280-95794-8

Date Collected: 04/11/17 15:15

Matrix: Solid

Date Received: 04/12/17 08:45

Percent Solids: 85.3

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	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-145

Lab Sample ID: 280-95794-9

Date Collected: 04/11/17 15:20

Matrix: Solid

Date Received: 04/12/17 08:45

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			370090	04/19/17 18:44	SVC	TAL DEN

Client Sample ID: RC4-SC-145

Lab Sample ID: 280-95794-9

Date Collected: 04/11/17 15:20

Matrix: Solid

Date Received: 04/12/17 08:45

Percent Solids: 86.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	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-146

Lab Sample ID: 280-95794-10

Date Collected: 04/11/17 15:25

Matrix: Solid

Date Received: 04/12/17 08:45

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			370090	04/19/17 18:44	SVC	TAL DEN

Client Sample ID: RC4-SC-146

Lab Sample ID: 280-95794-10

Date Collected: 04/11/17 15:25

Matrix: Solid

Date Received: 04/12/17 08:45

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/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-147

Lab Sample ID: 280-95794-11

Date Collected: 04/11/17 15:30

Matrix: Solid

Date Received: 04/12/17 08:45

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			370090	04/19/17 18:44	SVC	TAL DEN

Client Sample ID: RC4-SC-147

Lab Sample ID: 280-95794-11

Date Collected: 04/11/17 15:30

Matrix: Solid

Date Received: 04/12/17 08:45

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	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

Laboratory References:

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	
Slantec		Tel/Fax: (303) 250-4718		Lab Contact: Jamie Ide		Carrier: Courier	
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							

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	GRO-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:
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.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant

Special Instructions/QC Requirements & Comments:

Metals include Ba, B, Cd, Cr, Cu, Pb, Ni, Se, Ag, Zn

Custody Seal No.: _____

Relinquished by: *Mike Stuthamer* Date: 4/11/17 1620 Company: *Slantec*

Relinquished by: *John Ide* Date: 4/12/17 845 Company: *TestAmerica*

Relinquished by: _____ Date: _____ Company: _____

Therm ID No.: _____

Date/Time: _____

Date/Time: 4-12-17 0845

Date/Time: _____

3, 4, 1, 2, 0 to 0 IR-#7 JT 4/12/17

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-95794-1

Login Number: 95794

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?	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	

Appendix B

Background Soil Sample Laboratory Analytical Report

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver

4955 Yarrow Street

Arvada, CO 80002

Tel: (303)736-0100

TestAmerica Job ID: 280-95791-1

Client Project/Site: Chevron Rangely, CO C-4

For:

Stantec Consulting Corp.

2000 South Colorado Blvd

Suite 2-300

Denver, Colorado 80222

Attn: Ms. Bethany Lucente



Authorized for release by:

4/26/2017 4:12:37 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.

Table of Contents

Cover Page	1
Table of Contents	2
Definitions	3
Case Narrative	5
Detection Summary	8
Method Summary	16
Sample Summary	17
Client Sample Results	18
Surrogate Summary	42
QC Sample Results	44
QC Association	55
Chronicle	64
Certification Summary	74
Chain of Custody	76
Receipt Checklists	80



Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Qualifiers

GC/MS VOA

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.
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

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
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.
X	Surrogate is outside control limits

Metals

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.
B	Compound was found in the blank and sample.

General Chemistry

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

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: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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)

1

2

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Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Job ID: 280-95791-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Stantec Consulting Corp.
Project: Chevron Rangely, CO C-4
Report Number: 280-95791-1

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.

Per client instructions received on 4/12/2017, the requested 8015B TEPH ORO analyses were not logged.

The laboratory will perform the requested Mercury analyses by method 7471A and Arsenic analysis by method 6020 was logged for each sample per project specifications for metals analytes and historical logging for this project site. The laboratory will proceed as indicated unless instructed otherwise. The client was notified on 4/12/2017.

The requested 7196A CrIII/CrVI analyses were subcontracted to TestAmerica's Nashville laboratory.

The chain of custody requests MS/MSD analysis for 9045D pH, 9050 Conductivity, SAR, and 7196A CrIII. The laboratory does not perform MS/MSD analysis for certain wet chemistry tests and/or calculation methods; therefore, the analyses were not performed and will not be found in this report.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

1,2-Dichloroethane-d4, 4-Bromofluorobenzene and Dibromofluoromethane failed the surrogate recovery criteria high for RC-BA-02 (280-95791-2).

1,2-Dichloroethane-d4 and Dibromofluoromethane failed the surrogate recovery criteria high for RC-BA-05 (280-95791-5).

Internal standard, 1,4-Dichlorobenzene-d4, response was outside of acceptance limits less than 50% recovery for the following samples: RC-BA-02 (280-95791-2), RC-BA-07 (280-95791-7) and RC-BA-08 (280-95791-8). The samples were re-analyzed and exhibited similar results; therefore, the data has been reported from the original analysis.

Internal standards, 1,4-Dichlorobenzene-d4, Fluorobenzene, and Chlorobenzene-d5, responses were outside of acceptance limits less than 50% recovery causing high recovery of surrogates, 4-Bromofluorobenzene, Dibromofluoromethane, and 1,2-Dichloroethane-d4, for the following sample: RC-BA-05 (280-95791-5). The sample was re-analyzed and exhibited similar results; therefore, the data has been reported from the original analysis.

Several analytes failed the recovery criteria for the MS/MSD of sample RC-BA-01 (280-95791-1). 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.

SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM)

Nitrobenzene-d5 failed the surrogate recovery criteria high for RC-BA-07 (280-95791-7). The associated sample was non-detect for the affected analytes; therefore, corrective action was not performed.

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Job ID: 280-95791-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

Samples RC-BA-02 (280-95791-2)[20X] and RC-BA-DUP01 (280-95791-11)[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.

GASOLINE RANGE ORGANICS (GRO)

a,a,a-Trifluorotoluene failed the surrogate recovery criteria low for RC-BA-05 (280-95791-5) and RC-BA-07 (280-95791-7). 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 prior to sub-sampling was performed due to the nature of sample matrix: RC-BA-01 (280-95791-1), RC-BA-01 (280-95791-1[MS]), RC-BA-01 (280-95791-1[MSD]), RC-BA-05 (280-95791-5), RC-BA-06 (280-95791-6), RC-BA-07 (280-95791-7) and RC-BA-09 (280-95791-9).

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: RC-BA-01 (280-95791-1), RC-BA-01 (280-95791-1[MS]), RC-BA-01 (280-95791-1[MSD]) and RC-BA-05 (280-95791-5). After the extraction, the extracts from both vessels were combined and concentrated. This was done as the sample matrix was a clay.

o-Terphenyl failed the surrogate recovery criteria high for RC-BA-DUP01 (280-95791-11). Evidence of matrix interference is present; therefore, corrective action was not performed.

o-Terphenyl failed the surrogate recovery criteria low for RC-BA-07 (280-95791-7). 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 280-369968/1-A, LCS 280-369203/2-A and LCS 280-369968/2-A. The associated analyte recoveries were in control for the MB and LCS. Additionally, re-extraction would be performed outside of analytical holding time; 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.

SODIUM ABSORPTION RATIO

The following samples could not be thoroughly homogenized before sub-sampling was performed due to sample matrix: RC-BA-01 (280-95791-1), RC-BA-05 (280-95791-5), RC-BA-06 (280-95791-6), RC-BA-07 (280-95791-7), RC-BA-09 (280-95791-9) and (280-95791-B-1 DU). The samples were clay.

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

TOTAL METALS (ICP)

Calcium, Magnesium and Copper were detected in method blank MB 280-369080/1-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.

Barium failed the recovery criteria low for the MS/MSD of sample RC-BA-01 (280-95791-1). 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.

METALS (ICPMS)

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

TOTAL MERCURY (CVAA)

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Job ID: 280-95791-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

The following sample could not be thoroughly homogenized before sub-sampling was performed due to sample matrix: RC-BA-07 (280-95791-7). The samples could not be completely removed from their containers due to their consistency.

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

HEXAVALENT CHROMIUM

Sample RC-BA-03 (280-95791-3)[10X] required dilution prior to analysis due to color. The reporting limits have been adjusted accordingly.

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: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Client Sample ID: RC-BA-01

Lab Sample ID: 280-95791-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzene	0.0025	J F1 F2	0.0057	0.00054	mg/Kg	1		✱	8260B	Total/NA
Toluene	0.0031	J F1 F2	0.0057	0.00079	mg/Kg	1		✱	8260B	Total/NA
Acenaphthene	0.0013	J	0.0063	0.00020	mg/Kg	1		✱	8270D SIM	Total/NA
Anthracene	0.0015	J	0.0063	0.00091	mg/Kg	1		✱	8270D SIM	Total/NA
Benzo[a]anthracene	0.0011	J	0.0063	0.0011	mg/Kg	1		✱	8270D SIM	Total/NA
Benzo[b]fluoranthene	0.0018	J	0.0063	0.0015	mg/Kg	1		✱	8270D SIM	Total/NA
Chrysene	0.0027	J	0.0063	0.0013	mg/Kg	1		✱	8270D SIM	Total/NA
Fluoranthene	0.0052	J	0.0063	0.0013	mg/Kg	1		✱	8270D SIM	Total/NA
Fluorene	0.0013	J	0.0063	0.00060	mg/Kg	1		✱	8270D SIM	Total/NA
Naphthalene	0.0024	J	0.0063	0.00041	mg/Kg	1		✱	8270D SIM	Total/NA
Pyrene	0.0038	J	0.0063	0.0014	mg/Kg	1		✱	8270D SIM	Total/NA
DRO (C10-C28)	2.9	J	5.0	0.85	mg/Kg	1		✱	8015C	Total/NA
Na	2900		10	10	mg/Kg	10			20B	Soluble
Ca	1200		2.0	2.0	mg/Kg	10			20B	Soluble
Mg	330		2.0	2.0	mg/Kg	10			20B	Soluble
Sodium Adsorption Ratio	19		1.2	1.2	No Unit	10			20B	Soluble
Barium	440	F1	1.3	0.13	mg/Kg	1		✱	6010C	Total/NA
Cadmium	0.35	J	0.63	0.052	mg/Kg	1		✱	6010C	Total/NA
Chromium	16		1.9	0.073	mg/Kg	1		✱	6010C	Total/NA
Lead	18		1.1	0.39	mg/Kg	1		✱	6010C	Total/NA
Boron	15		13	1.2	mg/Kg	1		✱	6010C	Total/NA
Calcium	22000	B	63	18	mg/Kg	1		✱	6010C	Total/NA
Copper	16	B	2.5	0.27	mg/Kg	1		✱	6010C	Total/NA
Magnesium	12000	B	25	4.7	mg/Kg	1		✱	6010C	Total/NA
Nickel	17		5.0	0.17	mg/Kg	1		✱	6010C	Total/NA
Sodium	2000		630	74	mg/Kg	1		✱	6010C	Total/NA
Zinc	76		3.8	0.50	mg/Kg	1		✱	6010C	Total/NA
Arsenic	6.9		0.68	0.057	mg/Kg	1		✱	6020A	Total/NA
Mercury	0.024		0.023	0.0074	mg/Kg	1		✱	7471A	Total/NA
Chromium, trivalent	16		6.3	2.5	mg/Kg	1		✱	7196A	Total/NA
pH adj. to 25 deg C	7.8	HF	0.1	0.1	SU	1			9045D	Soluble
Temperature	22.1	HF	1.0	1.0	Degrees C	1			9045D	Soluble
Electrical Conductivity	11		0.010	0.010	mmhos/cm	1			9050A	Soluble

Client Sample ID: RC-BA-02

Lab Sample ID: 280-95791-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzene	0.0023	J	0.0053	0.00050	mg/Kg	1		✱	8260B	Total/NA
Toluene	0.0031	J	0.0053	0.00073	mg/Kg	1		✱	8260B	Total/NA
m-Xylene & p-Xylene	0.0015	J	0.0026	0.0011	mg/Kg	1		✱	8260B	Total/NA
Xylenes, Total	0.0015	J	0.0053	0.00064	mg/Kg	1		✱	8260B	Total/NA
DRO (C10-C28)	440		4.4	0.74	mg/Kg	1		✱	8015C	Total/NA
Na	52		10	10	mg/Kg	10			20B	Soluble
Ca	120		2.0	2.0	mg/Kg	10			20B	Soluble
Mg	22		2.0	2.0	mg/Kg	10			20B	Soluble
Barium	220		1.0	0.10	mg/Kg	1		✱	6010C	Total/NA
Cadmium	0.37	J	0.50	0.041	mg/Kg	1		✱	6010C	Total/NA
Chromium	14		1.5	0.058	mg/Kg	1		✱	6010C	Total/NA
Lead	15		0.90	0.31	mg/Kg	1		✱	6010C	Total/NA
Boron	12		10	0.98	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: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Client Sample ID: RC-BA-02 (Continued)

Lab Sample ID: 280-95791-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Selenium	0.97	J	1.5	0.86	mg/Kg	1		✱	6010C	Total/NA
Calcium	25000	B	50	14	mg/Kg	1		✱	6010C	Total/NA
Copper	14	B	2.0	0.22	mg/Kg	1		✱	6010C	Total/NA
Magnesium	10000	B	20	3.7	mg/Kg	1		✱	6010C	Total/NA
Nickel	16		4.0	0.13	mg/Kg	1		✱	6010C	Total/NA
Sodium	360	J	500	59	mg/Kg	1		✱	6010C	Total/NA
Zinc	130		3.0	0.40	mg/Kg	1		✱	6010C	Total/NA
Arsenic	9.2		0.58	0.049	mg/Kg	1		✱	6020A	Total/NA
Mercury	0.023		0.021	0.0069	mg/Kg	1		✱	7471A	Total/NA
Chromium, trivalent	14		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	22.1	HF	1.0	1.0	Degrees C	1			9045D	Soluble
Electrical Conductivity	0.57		0.010	0.010	mmhos/cm	1			9050A	Soluble

Client Sample ID: RC-BA-03

Lab Sample ID: 280-95791-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzene	0.0019	J	0.0052	0.00049	mg/Kg	1		✱	8260B	Total/NA
Toluene	0.0020	J	0.0052	0.00072	mg/Kg	1		✱	8260B	Total/NA
Benzo[b]fluoranthene	0.0039	J	0.0058	0.0014	mg/Kg	1		✱	8270D SIM	Total/NA
Fluoranthene	0.0014	J	0.0058	0.0012	mg/Kg	1		✱	8270D SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.0017	J	0.0058	0.0013	mg/Kg	1		✱	8270D SIM	Total/NA
Naphthalene	0.0020	J	0.0058	0.00038	mg/Kg	1		✱	8270D SIM	Total/NA
Pyrene	0.0014	J	0.0058	0.0013	mg/Kg	1		✱	8270D SIM	Total/NA
DRO (C10-C28)	46		4.7	0.79	mg/Kg	1		✱	8015C	Total/NA
Na	13		10	10	mg/Kg	10			20B	Soluble
Ca	65		2.0	2.0	mg/Kg	10			20B	Soluble
Mg	10		2.0	2.0	mg/Kg	10			20B	Soluble
Barium	220		1.1	0.12	mg/Kg	1		✱	6010C	Total/NA
Cadmium	0.47	J	0.56	0.046	mg/Kg	1		✱	6010C	Total/NA
Chromium	18		1.7	0.065	mg/Kg	1		✱	6010C	Total/NA
Lead	18		1.0	0.35	mg/Kg	1		✱	6010C	Total/NA
Boron	14		11	1.1	mg/Kg	1		✱	6010C	Total/NA
Selenium	1.3	J	1.7	0.96	mg/Kg	1		✱	6010C	Total/NA
Calcium	23000	B	56	16	mg/Kg	1		✱	6010C	Total/NA
Copper	18	B	2.2	0.24	mg/Kg	1		✱	6010C	Total/NA
Magnesium	12000	B	22	4.1	mg/Kg	1		✱	6010C	Total/NA
Nickel	20		4.5	0.15	mg/Kg	1		✱	6010C	Total/NA
Sodium	240	J	560	66	mg/Kg	1		✱	6010C	Total/NA
Zinc	90		3.4	0.44	mg/Kg	1		✱	6010C	Total/NA
Arsenic	7.6		0.67	0.056	mg/Kg	1		✱	6020A	Total/NA
Mercury	0.034		0.022	0.0072	mg/Kg	1		✱	7471A	Total/NA
Chromium, trivalent	18		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	22.3	HF	1.0	1.0	Degrees C	1			9045D	Soluble
Electrical Conductivity	0.57		0.010	0.010	mmhos/cm	1			9050A	Soluble

Client Sample ID: RC-BA-04

Lab Sample ID: 280-95791-4

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Client Sample ID: RC-BA-04 (Continued)

Lab Sample ID: 280-95791-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzene	0.0026	J	0.0049	0.00046	mg/Kg	1		✱	8260B	Total/NA
Toluene	0.0033	J	0.0049	0.00067	mg/Kg	1		✱	8260B	Total/NA
m-Xylene & p-Xylene	0.0013	J	0.0024	0.0010	mg/Kg	1		✱	8260B	Total/NA
Xylenes, Total	0.0013	J	0.0049	0.00059	mg/Kg	1		✱	8260B	Total/NA
Anthracene	0.0023	J	0.0052	0.00075	mg/Kg	1		✱	8270D SIM	Total/NA
Benzo[b]fluoranthene	0.0025	J	0.0052	0.0012	mg/Kg	1		✱	8270D SIM	Total/NA
Chrysene	0.0037	J	0.0052	0.0010	mg/Kg	1		✱	8270D SIM	Total/NA
Fluoranthene	0.0022	J	0.0052	0.0010	mg/Kg	1		✱	8270D SIM	Total/NA
Pyrene	0.0017	J	0.0052	0.0011	mg/Kg	1		✱	8270D SIM	Total/NA
DRO (C10-C28)	4.8		4.0	0.68	mg/Kg	1		✱	8015C	Total/NA
Na	670		10	10	mg/Kg	10			20B	Soluble
Ca	67		2.0	2.0	mg/Kg	10			20B	Soluble
Mg	11		2.0	2.0	mg/Kg	10			20B	Soluble
Sodium Adsorption Ratio	20		1.2	1.2	No Unit	10			20B	Soluble
Barium	220		0.90	0.093	mg/Kg	1		✱	6010C	Total/NA
Cadmium	0.43	J	0.45	0.037	mg/Kg	1		✱	6010C	Total/NA
Chromium	14		1.3	0.052	mg/Kg	1		✱	6010C	Total/NA
Lead	16		0.81	0.28	mg/Kg	1		✱	6010C	Total/NA
Boron	14		9.0	0.88	mg/Kg	1		✱	6010C	Total/NA
Calcium	24000	B	45	13	mg/Kg	1		✱	6010C	Total/NA
Copper	15	B	1.8	0.19	mg/Kg	1		✱	6010C	Total/NA
Magnesium	12000	B	18	3.3	mg/Kg	1		✱	6010C	Total/NA
Nickel	16		3.6	0.12	mg/Kg	1		✱	6010C	Total/NA
Sodium	870		450	53	mg/Kg	1		✱	6010C	Total/NA
Zinc	75		2.7	0.36	mg/Kg	1		✱	6010C	Total/NA
Arsenic	8.0		0.50	0.042	mg/Kg	1		✱	6020A	Total/NA
Mercury	0.019		0.019	0.0062	mg/Kg	1		✱	7471A	Total/NA
Chromium, trivalent	14		5.2	2.1	mg/Kg	1		✱	7196A	Total/NA
pH adj. to 25 deg C	8.7	HF	0.1	0.1	SU	1			9045D	Soluble
Temperature	22.4	HF	1.0	1.0	Degrees C	1			9045D	Soluble
Electrical Conductivity	1.8		0.010	0.010	mmhos/cm	1			9050A	Soluble

Client Sample ID: RC-BA-05

Lab Sample ID: 280-95791-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzene	0.0026	J	0.0053	0.00050	mg/Kg	1		✱	8260B	Total/NA
Toluene	0.0030	J	0.0053	0.00073	mg/Kg	1		✱	8260B	Total/NA
Acenaphthene	0.0012	J	0.0063	0.00020	mg/Kg	1		✱	8270D SIM	Total/NA
Anthracene	0.0028	J	0.0063	0.00090	mg/Kg	1		✱	8270D SIM	Total/NA
Benzo[a]anthracene	0.016		0.0063	0.0011	mg/Kg	1		✱	8270D SIM	Total/NA
Benzo[a]pyrene	0.028		0.0063	0.00093	mg/Kg	1		✱	8270D SIM	Total/NA
Benzo[b]fluoranthene	0.031		0.0063	0.0015	mg/Kg	1		✱	8270D SIM	Total/NA
Benzo[k]fluoranthene	0.0090		0.0063	0.0013	mg/Kg	1		✱	8270D SIM	Total/NA
Chrysene	0.035		0.0063	0.0013	mg/Kg	1		✱	8270D SIM	Total/NA
Dibenz(a,h)anthracene	0.0043	J	0.0063	0.0016	mg/Kg	1		✱	8270D SIM	Total/NA
Fluoranthene	0.043		0.0063	0.0013	mg/Kg	1		✱	8270D SIM	Total/NA
Fluorene	0.0011	J	0.0063	0.00059	mg/Kg	1		✱	8270D SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.018		0.0063	0.0014	mg/Kg	1		✱	8270D SIM	Total/NA
Naphthalene	0.0028	J	0.0063	0.00041	mg/Kg	1		✱	8270D SIM	Total/NA
Pyrene	0.037		0.0063	0.0014	mg/Kg	1		✱	8270D SIM	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Client Sample ID: RC-BA-05 (Continued)

Lab Sample ID: 280-95791-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
DRO (C10-C28)	39		4.6	0.78	mg/Kg	1	✱	8015C	Total/NA
Na	38		10	10	mg/Kg	10		20B	Soluble
Ca	100		2.0	2.0	mg/Kg	10		20B	Soluble
Mg	15		2.0	2.0	mg/Kg	10		20B	Soluble
Barium	200		0.84	0.088	mg/Kg	1	✱	6010C	Total/NA
Cadmium	0.40	J	0.42	0.035	mg/Kg	1	✱	6010C	Total/NA
Chromium	16		1.3	0.049	mg/Kg	1	✱	6010C	Total/NA
Lead	16		0.76	0.26	mg/Kg	1	✱	6010C	Total/NA
Boron	14		8.4	0.83	mg/Kg	1	✱	6010C	Total/NA
Selenium	0.79	J	1.3	0.72	mg/Kg	1	✱	6010C	Total/NA
Calcium	22000	B	42	12	mg/Kg	1	✱	6010C	Total/NA
Copper	20	B	1.7	0.18	mg/Kg	1	✱	6010C	Total/NA
Magnesium	11000	B	17	3.1	mg/Kg	1	✱	6010C	Total/NA
Nickel	18		3.4	0.11	mg/Kg	1	✱	6010C	Total/NA
Sodium	330	J	420	50	mg/Kg	1	✱	6010C	Total/NA
Zinc	100		2.5	0.34	mg/Kg	1	✱	6010C	Total/NA
Arsenic	6.8		0.52	0.044	mg/Kg	1	✱	6020A	Total/NA
Mercury	0.090		0.023	0.0076	mg/Kg	1	✱	7471A	Total/NA
Chromium, trivalent	16		6.3	2.5	mg/Kg	1	✱	7196A	Total/NA
pH adj. to 25 deg C	8.2	HF	0.1	0.1	SU	1		9045D	Soluble
Temperature	22.4	HF	1.0	1.0	Degrees C	1		9045D	Soluble
Electrical Conductivity	0.68		0.010	0.010	mmhos/cm	1		9050A	Soluble

Client Sample ID: RC-BA-06

Lab Sample ID: 280-95791-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.0016	J	0.0051	0.00048	mg/Kg	1	✱	8260B	Total/NA
Toluene	0.0019	J	0.0051	0.00070	mg/Kg	1	✱	8260B	Total/NA
Benzo[b]fluoranthene	0.0025	J	0.0061	0.0015	mg/Kg	1	✱	8270D SIM	Total/NA
Chrysene	0.0026	J	0.0061	0.0012	mg/Kg	1	✱	8270D SIM	Total/NA
Fluoranthene	0.0016	J	0.0061	0.0012	mg/Kg	1	✱	8270D SIM	Total/NA
Naphthalene	0.0013	J	0.0061	0.00040	mg/Kg	1	✱	8270D SIM	Total/NA
Pyrene	0.0018	J	0.0061	0.0013	mg/Kg	1	✱	8270D SIM	Total/NA
GRO (C6-C10)	0.74	J	1.4	0.39	mg/Kg	1	✱	8015C	Total/NA
DRO (C10-C28)	15		4.8	0.81	mg/Kg	1	✱	8015C	Total/NA
Na	53		10	10	mg/Kg	10		20B	Soluble
Ca	130		2.0	2.0	mg/Kg	10		20B	Soluble
Mg	25		2.0	2.0	mg/Kg	10		20B	Soluble
Barium	140		1.2	0.13	mg/Kg	1	✱	6010C	Total/NA
Cadmium	0.35	J	0.62	0.051	mg/Kg	1	✱	6010C	Total/NA
Chromium	17		1.9	0.072	mg/Kg	1	✱	6010C	Total/NA
Lead	16		1.1	0.38	mg/Kg	1	✱	6010C	Total/NA
Boron	13		12	1.2	mg/Kg	1	✱	6010C	Total/NA
Calcium	22000	B	62	17	mg/Kg	1	✱	6010C	Total/NA
Copper	16	B	2.5	0.27	mg/Kg	1	✱	6010C	Total/NA
Magnesium	11000	B	25	4.6	mg/Kg	1	✱	6010C	Total/NA
Nickel	17		4.9	0.16	mg/Kg	1	✱	6010C	Total/NA
Sodium	240	J	620	73	mg/Kg	1	✱	6010C	Total/NA
Zinc	75		3.7	0.49	mg/Kg	1	✱	6010C	Total/NA
Arsenic	7.1		0.69	0.058	mg/Kg	1	✱	6020A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Client Sample ID: RC-BA-06 (Continued)

Lab Sample ID: 280-95791-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.022	J	0.024	0.0077	mg/Kg	1	☒	7471A	Total/NA
Chromium, trivalent	17		6.2	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	22.4	HF	1.0	1.0	Degrees C	1		9045D	Soluble
Electrical Conductivity	0.61		0.010	0.010	mmhos/cm	1		9050A	Soluble

Client Sample ID: RC-BA-07

Lab Sample ID: 280-95791-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.0023	J	0.0063	0.00059	mg/Kg	1	☒	8260B	Total/NA
Toluene	0.0027	J	0.0063	0.00087	mg/Kg	1	☒	8260B	Total/NA
Benzo[b]fluoranthene	0.0036	J	0.0067	0.0016	mg/Kg	1	☒	8270D SIM	Total/NA
Fluoranthene	0.0020	J	0.0067	0.0013	mg/Kg	1	☒	8270D SIM	Total/NA
Naphthalene	0.0034	J	0.0067	0.00044	mg/Kg	1	☒	8270D SIM	Total/NA
Pyrene	0.0025	J	0.0067	0.0015	mg/Kg	1	☒	8270D SIM	Total/NA
DRO (C10-C28)	34		5.3	0.90	mg/Kg	1	☒	8015C	Total/NA
Na	19		10	10	mg/Kg	10		20B	Soluble
Ca	87		2.0	2.0	mg/Kg	10		20B	Soluble
Mg	15		2.0	2.0	mg/Kg	10		20B	Soluble
Barium	210		1.3	0.14	mg/Kg	1	☒	6010C	Total/NA
Cadmium	0.41	J	0.67	0.055	mg/Kg	1	☒	6010C	Total/NA
Chromium	23		2.0	0.077	mg/Kg	1	☒	6010C	Total/NA
Lead	19		1.2	0.41	mg/Kg	1	☒	6010C	Total/NA
Boron	19		13	1.3	mg/Kg	1	☒	6010C	Total/NA
Calcium	23000	B	67	19	mg/Kg	1	☒	6010C	Total/NA
Copper	18	B	2.7	0.29	mg/Kg	1	☒	6010C	Total/NA
Magnesium	12000	B	27	4.9	mg/Kg	1	☒	6010C	Total/NA
Nickel	21		5.3	0.18	mg/Kg	1	☒	6010C	Total/NA
Sodium	280	J	670	78	mg/Kg	1	☒	6010C	Total/NA
Zinc	94		4.0	0.53	mg/Kg	1	☒	6010C	Total/NA
Arsenic	6.0		0.73	0.062	mg/Kg	1	☒	6020A	Total/NA
Mercury	0.065		0.026	0.0084	mg/Kg	1	☒	7471A	Total/NA
Chromium, trivalent	23		6.8	2.7	mg/Kg	1	☒	7196A	Total/NA
pH adj. to 25 deg C	7.9	HF	0.1	0.1	SU	1		9045D	Soluble
Temperature	22.2	HF	1.0	1.0	Degrees C	1		9045D	Soluble
Electrical Conductivity	0.72		0.010	0.010	mmhos/cm	1		9050A	Soluble

Client Sample ID: RC-BA-08

Lab Sample ID: 280-95791-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.0019	J	0.0048	0.00045	mg/Kg	1	☒	8260B	Total/NA
Toluene	0.0026	J	0.0048	0.00066	mg/Kg	1	☒	8260B	Total/NA
m-Xylene & p-Xylene	0.0011	J	0.0024	0.00099	mg/Kg	1	☒	8260B	Total/NA
Xylenes, Total	0.0011	J	0.0048	0.00058	mg/Kg	1	☒	8260B	Total/NA
Benzo[b]fluoranthene	0.0027	J	0.0056	0.0014	mg/Kg	1	☒	8270D SIM	Total/NA
Chrysene	0.010		0.0056	0.0011	mg/Kg	1	☒	8270D SIM	Total/NA
Dibenz(a,h)anthracene	0.0034	J	0.0056	0.0015	mg/Kg	1	☒	8270D SIM	Total/NA
Fluoranthene	0.0020	J	0.0056	0.0011	mg/Kg	1	☒	8270D SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.0017	J	0.0056	0.0012	mg/Kg	1	☒	8270D SIM	Total/NA
Naphthalene	0.0014	J	0.0056	0.00037	mg/Kg	1	☒	8270D SIM	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Client Sample ID: RC-BA-08 (Continued)

Lab Sample ID: 280-95791-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Pyrene	0.0031	J	0.0056	0.0012	mg/Kg	1		✱	8270D SIM	Total/NA
DRO (C10-C28)	77		4.3	0.74	mg/Kg	1		✱	8015C	Total/NA
Na	640		10	10	mg/Kg	10			20B	Soluble
Ca	77		2.0	2.0	mg/Kg	10			20B	Soluble
Mg	45		2.0	2.0	mg/Kg	10			20B	Soluble
Sodium Adsorption Ratio	14		1.2	1.2	No Unit	10			20B	Soluble
Barium	190		0.88	0.091	mg/Kg	1		✱	6010C	Total/NA
Cadmium	0.29	J	0.44	0.036	mg/Kg	1		✱	6010C	Total/NA
Chromium	12		1.3	0.051	mg/Kg	1		✱	6010C	Total/NA
Lead	14		0.79	0.27	mg/Kg	1		✱	6010C	Total/NA
Boron	11		8.8	0.86	mg/Kg	1		✱	6010C	Total/NA
Selenium	0.97	J	1.3	0.75	mg/Kg	1		✱	6010C	Total/NA
Calcium	23000	B	44	12	mg/Kg	1		✱	6010C	Total/NA
Copper	14	B	1.8	0.19	mg/Kg	1		✱	6010C	Total/NA
Magnesium	11000	B	18	3.2	mg/Kg	1		✱	6010C	Total/NA
Nickel	16		3.5	0.12	mg/Kg	1		✱	6010C	Total/NA
Sodium	800		440	52	mg/Kg	1		✱	6010C	Total/NA
Zinc	72		2.6	0.35	mg/Kg	1		✱	6010C	Total/NA
Arsenic	7.2		0.60	0.051	mg/Kg	1		✱	6020A	Total/NA
Mercury	0.024		0.020	0.0066	mg/Kg	1		✱	7471A	Total/NA
Chromium, trivalent	12		5.7	2.3	mg/Kg	1		✱	7196A	Total/NA
pH adj. to 25 deg C	8.8	HF	0.1	0.1	SU	1			9045D	Soluble
Temperature	22.3	HF	1.0	1.0	Degrees C	1			9045D	Soluble
Electrical Conductivity	1.7		0.010	0.010	mmhos/cm	1			9050A	Soluble

Client Sample ID: RC-BA-09

Lab Sample ID: 280-95791-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzene	0.0030	J	0.0053	0.00050	mg/Kg	1		✱	8260B	Total/NA
Ethylbenzene	0.00074	J	0.0053	0.00072	mg/Kg	1		✱	8260B	Total/NA
Toluene	0.0044	J	0.0053	0.00074	mg/Kg	1		✱	8260B	Total/NA
m-Xylene & p-Xylene	0.0021	J	0.0027	0.0011	mg/Kg	1		✱	8260B	Total/NA
o-Xylene	0.00086	J	0.0027	0.00065	mg/Kg	1		✱	8260B	Total/NA
Xylenes, Total	0.0030	J	0.0053	0.00065	mg/Kg	1		✱	8260B	Total/NA
Benzo[b]fluoranthene	0.0032	J	0.0058	0.0014	mg/Kg	1		✱	8270D SIM	Total/NA
Chrysene	0.0057	J	0.0058	0.0012	mg/Kg	1		✱	8270D SIM	Total/NA
Fluoranthene	0.0023	J	0.0058	0.0012	mg/Kg	1		✱	8270D SIM	Total/NA
Fluorene	0.00073	J	0.0058	0.00055	mg/Kg	1		✱	8270D SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.0021	J	0.0058	0.0013	mg/Kg	1		✱	8270D SIM	Total/NA
Naphthalene	0.0036	J	0.0058	0.00038	mg/Kg	1		✱	8270D SIM	Total/NA
Pyrene	0.0024	J	0.0058	0.0013	mg/Kg	1		✱	8270D SIM	Total/NA
GRO (C6-C10)	6.1		1.5	0.41	mg/Kg	1		✱	8015C	Total/NA
DRO (C10-C28)	12		4.6	0.79	mg/Kg	1		✱	8015C	Total/NA
Na	470		10	10	mg/Kg	10			20B	Soluble
Ca	30		2.0	2.0	mg/Kg	10			20B	Soluble
Mg	20		2.0	2.0	mg/Kg	10			20B	Soluble
Sodium Adsorption Ratio	16		1.2	1.2	No Unit	10			20B	Soluble
Barium	130		0.99	0.10	mg/Kg	1		✱	6010C	Total/NA
Cadmium	0.29	J	0.49	0.041	mg/Kg	1		✱	6010C	Total/NA
Chromium	13		1.5	0.057	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: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Client Sample ID: RC-BA-09 (Continued)

Lab Sample ID: 280-95791-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	15		0.89	0.31	mg/Kg	1	☼	6010C	Total/NA
Boron	12		9.9	0.97	mg/Kg	1	☼	6010C	Total/NA
Calcium	23000	B	49	14	mg/Kg	1	☼	6010C	Total/NA
Copper	14	B	2.0	0.21	mg/Kg	1	☼	6010C	Total/NA
Magnesium	14000	B	20	3.7	mg/Kg	1	☼	6010C	Total/NA
Nickel	15		4.0	0.13	mg/Kg	1	☼	6010C	Total/NA
Sodium	790		490	58	mg/Kg	1	☼	6010C	Total/NA
Zinc	71		3.0	0.39	mg/Kg	1	☼	6010C	Total/NA
Arsenic	6.8		0.60	0.051	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.020	J	0.023	0.0076	mg/Kg	1	☼	7471A	Total/NA
Chromium, trivalent	13		6.0	2.4	mg/Kg	1	☼	7196A	Total/NA
pH adj. to 25 deg C	9.3	HF	0.1	0.1	SU	1		9045D	Soluble
Temperature	22.0	HF	1.0	1.0	Degrees C	1		9045D	Soluble
Electrical Conductivity	1.2		0.010	0.010	mmhos/cm	1		9050A	Soluble

Client Sample ID: RC-BA-10

Lab Sample ID: 280-95791-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.0027	J	0.0053	0.00050	mg/Kg	1	☼	8260B	Total/NA
Toluene	0.0032	J	0.0053	0.00073	mg/Kg	1	☼	8260B	Total/NA
m-Xylene & p-Xylene	0.0013	J	0.0027	0.0011	mg/Kg	1	☼	8260B	Total/NA
Xylenes, Total	0.0013	J	0.0053	0.00065	mg/Kg	1	☼	8260B	Total/NA
Benzo[b]fluoranthene	0.0028	J	0.0054	0.0013	mg/Kg	1	☼	8270D SIM	Total/NA
Chrysene	0.0060		0.0054	0.0011	mg/Kg	1	☼	8270D SIM	Total/NA
Fluoranthene	0.0025	J	0.0054	0.0011	mg/Kg	1	☼	8270D SIM	Total/NA
Naphthalene	0.0016	J	0.0054	0.00035	mg/Kg	1	☼	8270D SIM	Total/NA
Pyrene	0.0028	J	0.0054	0.0012	mg/Kg	1	☼	8270D SIM	Total/NA
GRO (C6-C10)	0.62	J	1.6	0.43	mg/Kg	1	☼	8015C	Total/NA
DRO (C10-C28)	38		4.5	0.77	mg/Kg	1	☼	8015C	Total/NA
Na	2700		10	10	mg/Kg	10		20B	Soluble
Ca	500		2.0	2.0	mg/Kg	10		20B	Soluble
Mg	350		2.0	2.0	mg/Kg	10		20B	Soluble
Sodium Adsorption Ratio	22		1.2	1.2	No Unit	10		20B	Soluble
Barium	130		1.1	0.12	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.30	J	0.56	0.046	mg/Kg	1	☼	6010C	Total/NA
Chromium	13		1.7	0.065	mg/Kg	1	☼	6010C	Total/NA
Lead	15		1.0	0.35	mg/Kg	1	☼	6010C	Total/NA
Boron	12		11	1.1	mg/Kg	1	☼	6010C	Total/NA
Calcium	25000	B	56	16	mg/Kg	1	☼	6010C	Total/NA
Copper	14	B	2.2	0.24	mg/Kg	1	☼	6010C	Total/NA
Magnesium	14000	B	22	4.1	mg/Kg	1	☼	6010C	Total/NA
Nickel	15		4.5	0.15	mg/Kg	1	☼	6010C	Total/NA
Sodium	1900		560	66	mg/Kg	1	☼	6010C	Total/NA
Zinc	71		3.4	0.45	mg/Kg	1	☼	6010C	Total/NA
Arsenic	6.7		0.59	0.050	mg/Kg	1	☼	6020A	Total/NA
Mercury	0.020	J	0.023	0.0075	mg/Kg	1	☼	7471A	Total/NA
Chromium, trivalent	13		5.7	2.3	mg/Kg	1	☼	7196A	Total/NA
pH adj. to 25 deg C	7.9	HF	0.1	0.1	SU	1		9045D	Soluble
Temperature	22.1	HF	1.0	1.0	Degrees C	1		9045D	Soluble
Electrical Conductivity	5.2		0.010	0.010	mmhos/cm	1		9050A	Soluble

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Client Sample ID: RC-BA-DUP01

Lab Sample ID: 280-95791-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzene	0.0019	J	0.0052	0.00048	mg/Kg	1		✱	8260B	Total/NA
Toluene	0.0027	J	0.0052	0.00071	mg/Kg	1		✱	8260B	Total/NA
m-Xylene & p-Xylene	0.0011	J	0.0026	0.0011	mg/Kg	1		✱	8260B	Total/NA
Xylenes, Total	0.0011	J	0.0052	0.00063	mg/Kg	1		✱	8260B	Total/NA
DRO (C10-C28)	580		4.3	0.73	mg/Kg	1		✱	8015C	Total/NA
Na	62		10	10	mg/Kg	10			20B	Soluble
Ca	200		2.0	2.0	mg/Kg	10			20B	Soluble
Mg	36		2.0	2.0	mg/Kg	10			20B	Soluble
Barium	200		1.1	0.11	mg/Kg	1		✱	6010C	Total/NA
Cadmium	0.36	J	0.55	0.045	mg/Kg	1		✱	6010C	Total/NA
Chromium	13		1.6	0.063	mg/Kg	1		✱	6010C	Total/NA
Lead	15		0.98	0.34	mg/Kg	1		✱	6010C	Total/NA
Boron	10	J	11	1.1	mg/Kg	1		✱	6010C	Total/NA
Calcium	25000	B	55	15	mg/Kg	1		✱	6010C	Total/NA
Copper	14	B	2.2	0.24	mg/Kg	1		✱	6010C	Total/NA
Magnesium	11000	B	22	4.0	mg/Kg	1		✱	6010C	Total/NA
Nickel	16		4.4	0.14	mg/Kg	1		✱	6010C	Total/NA
Sodium	350	J	550	65	mg/Kg	1		✱	6010C	Total/NA
Zinc	110		3.3	0.44	mg/Kg	1		✱	6010C	Total/NA
Arsenic	9.1		0.51	0.043	mg/Kg	1		✱	6020A	Total/NA
Mercury	0.024		0.020	0.0064	mg/Kg	1		✱	7471A	Total/NA
Chromium, trivalent	13		5.6	2.2	mg/Kg	1		✱	7196A	Total/NA
pH adj. to 25 deg C	8.0	HF	0.1	0.1	SU	1			9045D	Soluble
Temperature	22.4	HF	1.0	1.0	Degrees C	1			9045D	Soluble
Electrical Conductivity	0.59		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: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-95791-1	RC-BA-01	Solid	04/11/17 10:00	04/12/17 08:45
280-95791-2	RC-BA-02	Solid	04/11/17 10:45	04/12/17 08:45
280-95791-3	RC-BA-03	Solid	04/11/17 12:00	04/12/17 08:45
280-95791-4	RC-BA-04	Solid	04/11/17 12:08	04/12/17 08:45
280-95791-5	RC-BA-05	Solid	04/11/17 11:30	04/12/17 08:45
280-95791-6	RC-BA-06	Solid	04/11/17 11:10	04/12/17 08:45
280-95791-7	RC-BA-07	Solid	04/11/17 12:15	04/12/17 08:45
280-95791-8	RC-BA-08	Solid	04/11/17 12:50	04/12/17 08:45
280-95791-9	RC-BA-09	Solid	04/11/17 12:40	04/12/17 08:45
280-95791-10	RC-BA-10	Solid	04/11/17 12:30	04/12/17 08:45
280-95791-11	RC-BA-DUP01	Solid	04/11/17 10:50	04/12/17 08:45

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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

Client Sample ID: RC-BA-01
Date Collected: 04/11/17 10:00
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-1
Matrix: Solid
Percent Solids: 78.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0025	J F1 F2	0.0057	0.00054	mg/Kg	☼	04/11/17 10:00	04/17/17 18:55	1
Ethylbenzene	ND	F1 F2	0.0057	0.00077	mg/Kg	☼	04/11/17 10:00	04/17/17 18:55	1
Toluene	0.0031	J F1 F2	0.0057	0.00079	mg/Kg	☼	04/11/17 10:00	04/17/17 18:55	1
m-Xylene & p-Xylene	ND	F1 F2	0.0029	0.0012	mg/Kg	☼	04/11/17 10:00	04/17/17 18:55	1
o-Xylene	ND	F1 F2	0.0029	0.00070	mg/Kg	☼	04/11/17 10:00	04/17/17 18:55	1
Xylenes, Total	ND	F1 F2	0.0057	0.00070	mg/Kg	☼	04/11/17 10:00	04/17/17 18:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	136		58 - 140	04/11/17 10:00	04/17/17 18:55	1
Toluene-d8 (Surr)	104		80 - 126	04/11/17 10:00	04/17/17 18:55	1
4-Bromofluorobenzene (Surr)	108		76 - 127	04/11/17 10:00	04/17/17 18:55	1
Dibromofluoromethane (Surr)	116		75 - 121	04/11/17 10:00	04/17/17 18:55	1

Client Sample ID: RC-BA-02
Date Collected: 04/11/17 10:45
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-2
Matrix: Solid
Percent Solids: 89.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0023	J	0.0053	0.00050	mg/Kg	☼	04/11/17 10:45	04/17/17 19:58	1
Ethylbenzene	ND		0.0053	0.00071	mg/Kg	☼	04/11/17 10:45	04/17/17 19:58	1
Toluene	0.0031	J	0.0053	0.00073	mg/Kg	☼	04/11/17 10:45	04/17/17 19:58	1
m-Xylene & p-Xylene	0.0015	J	0.0026	0.0011	mg/Kg	☼	04/11/17 10:45	04/17/17 19:58	1
o-Xylene	ND		0.0026	0.00064	mg/Kg	☼	04/11/17 10:45	04/17/17 19:58	1
Xylenes, Total	0.0015	J	0.0053	0.00064	mg/Kg	☼	04/11/17 10:45	04/17/17 19:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	143	X	58 - 140	04/11/17 10:45	04/17/17 19:58	1
Toluene-d8 (Surr)	116		80 - 126	04/11/17 10:45	04/17/17 19:58	1
4-Bromofluorobenzene (Surr)	130	X	76 - 127	04/11/17 10:45	04/17/17 19:58	1
Dibromofluoromethane (Surr)	127	X	75 - 121	04/11/17 10:45	04/17/17 19:58	1

Client Sample ID: RC-BA-03
Date Collected: 04/11/17 12:00
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-3
Matrix: Solid
Percent Solids: 85.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0019	J	0.0052	0.00049	mg/Kg	☼	04/11/17 12:00	04/17/17 20:19	1
Ethylbenzene	ND		0.0052	0.00069	mg/Kg	☼	04/11/17 12:00	04/17/17 20:19	1
Toluene	0.0020	J	0.0052	0.00072	mg/Kg	☼	04/11/17 12:00	04/17/17 20:19	1
m-Xylene & p-Xylene	ND		0.0026	0.0011	mg/Kg	☼	04/11/17 12:00	04/17/17 20:19	1
o-Xylene	ND		0.0026	0.00063	mg/Kg	☼	04/11/17 12:00	04/17/17 20:19	1
Xylenes, Total	ND		0.0052	0.00063	mg/Kg	☼	04/11/17 12:00	04/17/17 20:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	129		58 - 140	04/11/17 12:00	04/17/17 20:19	1
Toluene-d8 (Surr)	104		80 - 126	04/11/17 12:00	04/17/17 20:19	1
4-Bromofluorobenzene (Surr)	107		76 - 127	04/11/17 12:00	04/17/17 20:19	1
Dibromofluoromethane (Surr)	114		75 - 121	04/11/17 12:00	04/17/17 20:19	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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

Client Sample ID: RC-BA-04
Date Collected: 04/11/17 12:08
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-4
Matrix: Solid
Percent Solids: 95.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0026	J	0.0049	0.00046	mg/Kg	☼	04/11/17 12:08	04/17/17 20:40	1
Ethylbenzene	ND		0.0049	0.00065	mg/Kg	☼	04/11/17 12:08	04/17/17 20:40	1
Toluene	0.0033	J	0.0049	0.00067	mg/Kg	☼	04/11/17 12:08	04/17/17 20:40	1
m-Xylene & p-Xylene	0.0013	J	0.0024	0.0010	mg/Kg	☼	04/11/17 12:08	04/17/17 20:40	1
o-Xylene	ND		0.0024	0.00059	mg/Kg	☼	04/11/17 12:08	04/17/17 20:40	1
Xylenes, Total	0.0013	J	0.0049	0.00059	mg/Kg	☼	04/11/17 12:08	04/17/17 20:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	132		58 - 140	04/11/17 12:08	04/17/17 20:40	1
Toluene-d8 (Surr)	101		80 - 126	04/11/17 12:08	04/17/17 20:40	1
4-Bromofluorobenzene (Surr)	102		76 - 127	04/11/17 12:08	04/17/17 20:40	1
Dibromofluoromethane (Surr)	116		75 - 121	04/11/17 12:08	04/17/17 20:40	1

Client Sample ID: RC-BA-05
Date Collected: 04/11/17 11:30
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-5
Matrix: Solid
Percent Solids: 79.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0026	J	0.0053	0.00050	mg/Kg	☼	04/11/17 11:30	04/17/17 21:01	1
Ethylbenzene	ND		0.0053	0.00071	mg/Kg	☼	04/11/17 11:30	04/17/17 21:01	1
Toluene	0.0030	J	0.0053	0.00073	mg/Kg	☼	04/11/17 11:30	04/17/17 21:01	1
m-Xylene & p-Xylene	ND		0.0027	0.0011	mg/Kg	☼	04/11/17 11:30	04/17/17 21:01	1
o-Xylene	ND		0.0027	0.00065	mg/Kg	☼	04/11/17 11:30	04/17/17 21:01	1
Xylenes, Total	ND		0.0053	0.00065	mg/Kg	☼	04/11/17 11:30	04/17/17 21:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	154	X	58 - 140	04/11/17 11:30	04/17/17 21:01	1
Toluene-d8 (Surr)	116		80 - 126	04/11/17 11:30	04/17/17 21:01	1
4-Bromofluorobenzene (Surr)	121		76 - 127	04/11/17 11:30	04/17/17 21:01	1
Dibromofluoromethane (Surr)	133	X	75 - 121	04/11/17 11:30	04/17/17 21:01	1

Client Sample ID: RC-BA-06
Date Collected: 04/11/17 11:10
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-6
Matrix: Solid
Percent Solids: 81.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0016	J	0.0051	0.00048	mg/Kg	☼	04/11/17 11:10	04/17/17 21:22	1
Ethylbenzene	ND		0.0051	0.00068	mg/Kg	☼	04/11/17 11:10	04/17/17 21:22	1
Toluene	0.0019	J	0.0051	0.00070	mg/Kg	☼	04/11/17 11:10	04/17/17 21:22	1
m-Xylene & p-Xylene	ND		0.0025	0.0011	mg/Kg	☼	04/11/17 11:10	04/17/17 21:22	1
o-Xylene	ND		0.0025	0.00062	mg/Kg	☼	04/11/17 11:10	04/17/17 21:22	1
Xylenes, Total	ND		0.0051	0.00062	mg/Kg	☼	04/11/17 11:10	04/17/17 21:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	128		58 - 140	04/11/17 11:10	04/17/17 21:22	1
Toluene-d8 (Surr)	97		80 - 126	04/11/17 11:10	04/17/17 21:22	1
4-Bromofluorobenzene (Surr)	99		76 - 127	04/11/17 11:10	04/17/17 21:22	1
Dibromofluoromethane (Surr)	112		75 - 121	04/11/17 11:10	04/17/17 21:22	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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

Client Sample ID: RC-BA-07
Date Collected: 04/11/17 12:15
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-7
Matrix: Solid
Percent Solids: 73.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0023	J	0.0063	0.00059	mg/Kg	☼	04/11/17 12:15	04/17/17 21:43	1
Ethylbenzene	ND		0.0063	0.00084	mg/Kg	☼	04/11/17 12:15	04/17/17 21:43	1
Toluene	0.0027	J	0.0063	0.00087	mg/Kg	☼	04/11/17 12:15	04/17/17 21:43	1
m-Xylene & p-Xylene	ND		0.0031	0.0013	mg/Kg	☼	04/11/17 12:15	04/17/17 21:43	1
o-Xylene	ND		0.0031	0.00077	mg/Kg	☼	04/11/17 12:15	04/17/17 21:43	1
Xylenes, Total	ND		0.0063	0.00077	mg/Kg	☼	04/11/17 12:15	04/17/17 21:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	133		58 - 140	04/11/17 12:15	04/17/17 21:43	1
Toluene-d8 (Surr)	101		80 - 126	04/11/17 12:15	04/17/17 21:43	1
4-Bromofluorobenzene (Surr)	107		76 - 127	04/11/17 12:15	04/17/17 21:43	1
Dibromofluoromethane (Surr)	117		75 - 121	04/11/17 12:15	04/17/17 21:43	1

Client Sample ID: RC-BA-08
Date Collected: 04/11/17 12:50
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-8
Matrix: Solid
Percent Solids: 87.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0019	J	0.0048	0.00045	mg/Kg	☼	04/11/17 12:50	04/17/17 22:04	1
Ethylbenzene	ND		0.0048	0.00064	mg/Kg	☼	04/11/17 12:50	04/17/17 22:04	1
Toluene	0.0026	J	0.0048	0.00066	mg/Kg	☼	04/11/17 12:50	04/17/17 22:04	1
m-Xylene & p-Xylene	0.0011	J	0.0024	0.00099	mg/Kg	☼	04/11/17 12:50	04/17/17 22:04	1
o-Xylene	ND		0.0024	0.00058	mg/Kg	☼	04/11/17 12:50	04/17/17 22:04	1
Xylenes, Total	0.0011	J	0.0048	0.00058	mg/Kg	☼	04/11/17 12:50	04/17/17 22:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	136		58 - 140	04/11/17 12:50	04/17/17 22:04	1
Toluene-d8 (Surr)	105		80 - 126	04/11/17 12:50	04/17/17 22:04	1
4-Bromofluorobenzene (Surr)	112		76 - 127	04/11/17 12:50	04/17/17 22:04	1
Dibromofluoromethane (Surr)	117		75 - 121	04/11/17 12:50	04/17/17 22:04	1

Client Sample ID: RC-BA-09
Date Collected: 04/11/17 12:40
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-9
Matrix: Solid
Percent Solids: 82.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0030	J	0.0053	0.00050	mg/Kg	☼	04/11/17 12:40	04/17/17 22:24	1
Ethylbenzene	0.00074	J	0.0053	0.00072	mg/Kg	☼	04/11/17 12:40	04/17/17 22:24	1
Toluene	0.0044	J	0.0053	0.00074	mg/Kg	☼	04/11/17 12:40	04/17/17 22:24	1
m-Xylene & p-Xylene	0.0021	J	0.0027	0.0011	mg/Kg	☼	04/11/17 12:40	04/17/17 22:24	1
o-Xylene	0.00086	J	0.0027	0.00065	mg/Kg	☼	04/11/17 12:40	04/17/17 22:24	1
Xylenes, Total	0.0030	J	0.0053	0.00065	mg/Kg	☼	04/11/17 12:40	04/17/17 22:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	133		58 - 140	04/11/17 12:40	04/17/17 22:24	1
Toluene-d8 (Surr)	101		80 - 126	04/11/17 12:40	04/17/17 22:24	1
4-Bromofluorobenzene (Surr)	106		76 - 127	04/11/17 12:40	04/17/17 22:24	1
Dibromofluoromethane (Surr)	119		75 - 121	04/11/17 12:40	04/17/17 22:24	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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

Client Sample ID: RC-BA-10
Date Collected: 04/11/17 12:30
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-10
Matrix: Solid
Percent Solids: 88.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0027	J	0.0053	0.00050	mg/Kg	☼	04/11/17 12:30	04/17/17 18:13	1
Ethylbenzene	ND		0.0053	0.00071	mg/Kg	☼	04/11/17 12:30	04/17/17 18:13	1
Toluene	0.0032	J	0.0053	0.00073	mg/Kg	☼	04/11/17 12:30	04/17/17 18:13	1
m-Xylene & p-Xylene	0.0013	J	0.0027	0.0011	mg/Kg	☼	04/11/17 12:30	04/17/17 18:13	1
o-Xylene	ND		0.0027	0.00065	mg/Kg	☼	04/11/17 12:30	04/17/17 18:13	1
Xylenes, Total	0.0013	J	0.0053	0.00065	mg/Kg	☼	04/11/17 12:30	04/17/17 18:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	132		58 - 140	04/11/17 12:30	04/17/17 18:13	1
Toluene-d8 (Surr)	104		80 - 126	04/11/17 12:30	04/17/17 18:13	1
4-Bromofluorobenzene (Surr)	104		76 - 127	04/11/17 12:30	04/17/17 18:13	1
Dibromofluoromethane (Surr)	116		75 - 121	04/11/17 12:30	04/17/17 18:13	1

Client Sample ID: RC-BA-DUP01
Date Collected: 04/11/17 10:50
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-11
Matrix: Solid
Percent Solids: 89.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0019	J	0.0052	0.00048	mg/Kg	☼	04/11/17 10:50	04/17/17 18:34	1
Ethylbenzene	ND		0.0052	0.00069	mg/Kg	☼	04/11/17 10:50	04/17/17 18:34	1
Toluene	0.0027	J	0.0052	0.00071	mg/Kg	☼	04/11/17 10:50	04/17/17 18:34	1
m-Xylene & p-Xylene	0.0011	J	0.0026	0.0011	mg/Kg	☼	04/11/17 10:50	04/17/17 18:34	1
o-Xylene	ND		0.0026	0.00063	mg/Kg	☼	04/11/17 10:50	04/17/17 18:34	1
Xylenes, Total	0.0011	J	0.0052	0.00063	mg/Kg	☼	04/11/17 10:50	04/17/17 18:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	136		58 - 140	04/11/17 10:50	04/17/17 18:34	1
Toluene-d8 (Surr)	105		80 - 126	04/11/17 10:50	04/17/17 18:34	1
4-Bromofluorobenzene (Surr)	121		76 - 127	04/11/17 10:50	04/17/17 18:34	1
Dibromofluoromethane (Surr)	118		75 - 121	04/11/17 10:50	04/17/17 18:34	1

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

Client Sample ID: RC-BA-01
Date Collected: 04/11/17 10:00
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-1
Matrix: Solid
Percent Solids: 78.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0013	J	0.0063	0.00020	mg/Kg	☼	04/18/17 09:47	04/24/17 15:45	1
Anthracene	0.0015	J	0.0063	0.00091	mg/Kg	☼	04/18/17 09:47	04/24/17 15:45	1
Benzo[a]anthracene	0.0011	J	0.0063	0.0011	mg/Kg	☼	04/18/17 09:47	04/24/17 15:45	1
Benzo[a]pyrene	ND		0.0063	0.00094	mg/Kg	☼	04/18/17 09:47	04/24/17 15:45	1
Benzo[b]fluoranthene	0.0018	J	0.0063	0.0015	mg/Kg	☼	04/18/17 09:47	04/24/17 15:45	1
Benzo[k]fluoranthene	ND		0.0063	0.0013	mg/Kg	☼	04/18/17 09:47	04/24/17 15:45	1
Chrysene	0.0027	J	0.0063	0.0013	mg/Kg	☼	04/18/17 09:47	04/24/17 15:45	1
Dibenz(a,h)anthracene	ND		0.0063	0.0016	mg/Kg	☼	04/18/17 09:47	04/24/17 15:45	1
Fluoranthene	0.0052	J	0.0063	0.0013	mg/Kg	☼	04/18/17 09:47	04/24/17 15:45	1
Fluorene	0.0013	J	0.0063	0.00060	mg/Kg	☼	04/18/17 09:47	04/24/17 15:45	1
Indeno[1,2,3-cd]pyrene	ND		0.0063	0.0014	mg/Kg	☼	04/18/17 09:47	04/24/17 15:45	1
Naphthalene	0.0024	J	0.0063	0.00041	mg/Kg	☼	04/18/17 09:47	04/24/17 15:45	1
Pyrene	0.0038	J	0.0063	0.0014	mg/Kg	☼	04/18/17 09:47	04/24/17 15:45	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	74		39 - 120	04/18/17 09:47	04/24/17 15:45	1
Nitrobenzene-d5	74		42 - 120	04/18/17 09:47	04/24/17 15:45	1
Terphenyl-d14	72		35 - 124	04/18/17 09:47	04/24/17 15:45	1

Client Sample ID: RC-BA-02
Date Collected: 04/11/17 10:45
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-2
Matrix: Solid
Percent Solids: 89.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.11	0.0036	mg/Kg	☼	04/18/17 09:47	04/24/17 17:04	20
Anthracene	ND		0.11	0.016	mg/Kg	☼	04/18/17 09:47	04/24/17 17:04	20
Benzo[a]anthracene	ND		0.11	0.020	mg/Kg	☼	04/18/17 09:47	04/24/17 17:04	20
Benzo[a]pyrene	ND		0.11	0.017	mg/Kg	☼	04/18/17 09:47	04/24/17 17:04	20
Benzo[b]fluoranthene	ND		0.11	0.027	mg/Kg	☼	04/18/17 09:47	04/24/17 17:04	20
Benzo[k]fluoranthene	ND		0.11	0.022	mg/Kg	☼	04/18/17 09:47	04/24/17 17:04	20
Chrysene	ND		0.11	0.022	mg/Kg	☼	04/18/17 09:47	04/24/17 17:04	20
Dibenz(a,h)anthracene	ND		0.11	0.029	mg/Kg	☼	04/18/17 09:47	04/24/17 17:04	20
Fluoranthene	ND		0.11	0.022	mg/Kg	☼	04/18/17 09:47	04/24/17 17:04	20
Fluorene	ND		0.11	0.011	mg/Kg	☼	04/18/17 09:47	04/24/17 17:04	20
Indeno[1,2,3-cd]pyrene	ND		0.11	0.025	mg/Kg	☼	04/18/17 09:47	04/24/17 17:04	20
Naphthalene	ND		0.11	0.0073	mg/Kg	☼	04/18/17 09:47	04/24/17 17:04	20
Pyrene	ND		0.11	0.025	mg/Kg	☼	04/18/17 09:47	04/24/17 17:04	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	79	D	39 - 120	04/18/17 09:47	04/24/17 17:04	20
Nitrobenzene-d5	102	D	42 - 120	04/18/17 09:47	04/24/17 17:04	20
Terphenyl-d14	87	D	35 - 124	04/18/17 09:47	04/24/17 17:04	20

Client Sample ID: RC-BA-03
Date Collected: 04/11/17 12:00
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-3
Matrix: Solid
Percent Solids: 85.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0058	0.00019	mg/Kg	☼	04/18/17 09:47	04/24/17 17:31	1
Anthracene	ND		0.0058	0.00084	mg/Kg	☼	04/18/17 09:47	04/24/17 17:31	1
Benzo[a]anthracene	ND		0.0058	0.0011	mg/Kg	☼	04/18/17 09:47	04/24/17 17:31	1
Benzo[a]pyrene	ND		0.0058	0.00087	mg/Kg	☼	04/18/17 09:47	04/24/17 17:31	1
Benzo[b]fluoranthene	0.0039	J	0.0058	0.0014	mg/Kg	☼	04/18/17 09:47	04/24/17 17:31	1
Benzo[k]fluoranthene	ND		0.0058	0.0012	mg/Kg	☼	04/18/17 09:47	04/24/17 17:31	1
Chrysene	ND		0.0058	0.0012	mg/Kg	☼	04/18/17 09:47	04/24/17 17:31	1
Dibenz(a,h)anthracene	ND		0.0058	0.0015	mg/Kg	☼	04/18/17 09:47	04/24/17 17:31	1
Fluoranthene	0.0014	J	0.0058	0.0012	mg/Kg	☼	04/18/17 09:47	04/24/17 17:31	1
Fluorene	ND		0.0058	0.00055	mg/Kg	☼	04/18/17 09:47	04/24/17 17:31	1
Indeno[1,2,3-cd]pyrene	0.0017	J	0.0058	0.0013	mg/Kg	☼	04/18/17 09:47	04/24/17 17:31	1
Naphthalene	0.0020	J	0.0058	0.00038	mg/Kg	☼	04/18/17 09:47	04/24/17 17:31	1
Pyrene	0.0014	J	0.0058	0.0013	mg/Kg	☼	04/18/17 09:47	04/24/17 17:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	79		39 - 120	04/18/17 09:47	04/24/17 17:31	1
Nitrobenzene-d5	87		42 - 120	04/18/17 09:47	04/24/17 17:31	1
Terphenyl-d14	78		35 - 124	04/18/17 09:47	04/24/17 17:31	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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

Client Sample ID: RC-BA-04
Date Collected: 04/11/17 12:08
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-4
Matrix: Solid
Percent Solids: 95.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0052	0.00017	mg/Kg	☼	04/18/17 09:47	04/24/17 17:57	1
Anthracene	0.0023	J	0.0052	0.00075	mg/Kg	☼	04/18/17 09:47	04/24/17 17:57	1
Benzo[a]anthracene	ND		0.0052	0.00094	mg/Kg	☼	04/18/17 09:47	04/24/17 17:57	1
Benzo[a]pyrene	ND		0.0052	0.00077	mg/Kg	☼	04/18/17 09:47	04/24/17 17:57	1
Benzo[b]fluoranthene	0.0025	J	0.0052	0.0012	mg/Kg	☼	04/18/17 09:47	04/24/17 17:57	1
Benzo[k]fluoranthene	ND		0.0052	0.0010	mg/Kg	☼	04/18/17 09:47	04/24/17 17:57	1
Chrysene	0.0037	J	0.0052	0.0010	mg/Kg	☼	04/18/17 09:47	04/24/17 17:57	1
Dibenz(a,h)anthracene	ND		0.0052	0.0014	mg/Kg	☼	04/18/17 09:47	04/24/17 17:57	1
Fluoranthene	0.0022	J	0.0052	0.0010	mg/Kg	☼	04/18/17 09:47	04/24/17 17:57	1
Fluorene	ND		0.0052	0.00049	mg/Kg	☼	04/18/17 09:47	04/24/17 17:57	1
Indeno[1,2,3-cd]pyrene	ND		0.0052	0.0011	mg/Kg	☼	04/18/17 09:47	04/24/17 17:57	1
Naphthalene	ND		0.0052	0.00034	mg/Kg	☼	04/18/17 09:47	04/24/17 17:57	1
Pyrene	0.0017	J	0.0052	0.0011	mg/Kg	☼	04/18/17 09:47	04/24/17 17:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	75		39 - 120				04/18/17 09:47	04/24/17 17:57	1
Nitrobenzene-d5	76		42 - 120				04/18/17 09:47	04/24/17 17:57	1
Terphenyl-d14	76		35 - 124				04/18/17 09:47	04/24/17 17:57	1

Client Sample ID: RC-BA-05
Date Collected: 04/11/17 11:30
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-5
Matrix: Solid
Percent Solids: 79.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0012	J	0.0063	0.00020	mg/Kg	☼	04/18/17 09:47	04/24/17 18:24	1
Anthracene	0.0028	J	0.0063	0.00090	mg/Kg	☼	04/18/17 09:47	04/24/17 18:24	1
Benzo[a]anthracene	0.016		0.0063	0.0011	mg/Kg	☼	04/18/17 09:47	04/24/17 18:24	1
Benzo[a]pyrene	0.028		0.0063	0.00093	mg/Kg	☼	04/18/17 09:47	04/24/17 18:24	1
Benzo[b]fluoranthene	0.031		0.0063	0.0015	mg/Kg	☼	04/18/17 09:47	04/24/17 18:24	1
Benzo[k]fluoranthene	0.0090		0.0063	0.0013	mg/Kg	☼	04/18/17 09:47	04/24/17 18:24	1
Chrysene	0.035		0.0063	0.0013	mg/Kg	☼	04/18/17 09:47	04/24/17 18:24	1
Dibenz(a,h)anthracene	0.0043	J	0.0063	0.0016	mg/Kg	☼	04/18/17 09:47	04/24/17 18:24	1
Fluoranthene	0.043		0.0063	0.0013	mg/Kg	☼	04/18/17 09:47	04/24/17 18:24	1
Fluorene	0.0011	J	0.0063	0.00059	mg/Kg	☼	04/18/17 09:47	04/24/17 18:24	1
Indeno[1,2,3-cd]pyrene	0.018		0.0063	0.0014	mg/Kg	☼	04/18/17 09:47	04/24/17 18:24	1
Naphthalene	0.0028	J	0.0063	0.00041	mg/Kg	☼	04/18/17 09:47	04/24/17 18:24	1
Pyrene	0.037		0.0063	0.0014	mg/Kg	☼	04/18/17 09:47	04/24/17 18:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	80		39 - 120				04/18/17 09:47	04/24/17 18:24	1
Nitrobenzene-d5	92		42 - 120				04/18/17 09:47	04/24/17 18:24	1
Terphenyl-d14	80		35 - 124				04/18/17 09:47	04/24/17 18:24	1

Client Sample ID: RC-BA-06
Date Collected: 04/11/17 11:10
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-6
Matrix: Solid
Percent Solids: 81.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0061	0.00020	mg/Kg	☼	04/18/17 09:47	04/24/17 18:50	1
Anthracene	ND		0.0061	0.00088	mg/Kg	☼	04/18/17 09:47	04/24/17 18:50	1
Benzo[a]anthracene	ND		0.0061	0.0011	mg/Kg	☼	04/18/17 09:47	04/24/17 18:50	1
Benzo[a]pyrene	ND		0.0061	0.00091	mg/Kg	☼	04/18/17 09:47	04/24/17 18:50	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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

Client Sample ID: RC-BA-06

Date Collected: 04/11/17 11:10

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-6

Matrix: Solid

Percent Solids: 81.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	0.0025	J	0.0061	0.0015	mg/Kg	☼	04/18/17 09:47	04/24/17 18:50	1
Benzo[k]fluoranthene	ND		0.0061	0.0012	mg/Kg	☼	04/18/17 09:47	04/24/17 18:50	1
Chrysene	0.0026	J	0.0061	0.0012	mg/Kg	☼	04/18/17 09:47	04/24/17 18:50	1
Dibenz(a,h)anthracene	ND		0.0061	0.0016	mg/Kg	☼	04/18/17 09:47	04/24/17 18:50	1
Fluoranthene	0.0016	J	0.0061	0.0012	mg/Kg	☼	04/18/17 09:47	04/24/17 18:50	1
Fluorene	ND		0.0061	0.00058	mg/Kg	☼	04/18/17 09:47	04/24/17 18:50	1
Indeno[1,2,3-cd]pyrene	ND		0.0061	0.0013	mg/Kg	☼	04/18/17 09:47	04/24/17 18:50	1
Naphthalene	0.0013	J	0.0061	0.00040	mg/Kg	☼	04/18/17 09:47	04/24/17 18:50	1
Pyrene	0.0018	J	0.0061	0.0013	mg/Kg	☼	04/18/17 09:47	04/24/17 18:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	81		39 - 120				04/18/17 09:47	04/24/17 18:50	1
Nitrobenzene-d5	89		42 - 120				04/18/17 09:47	04/24/17 18:50	1
Terphenyl-d14	81		35 - 124				04/18/17 09:47	04/24/17 18:50	1

Client Sample ID: RC-BA-07

Date Collected: 04/11/17 12:15

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-7

Matrix: Solid

Percent Solids: 73.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0067	0.00022	mg/Kg	☼	04/18/17 09:47	04/24/17 19:17	1
Anthracene	ND		0.0067	0.00097	mg/Kg	☼	04/18/17 09:47	04/24/17 19:17	1
Benzo[a]anthracene	ND		0.0067	0.0012	mg/Kg	☼	04/18/17 09:47	04/24/17 19:17	1
Benzo[a]pyrene	ND		0.0067	0.0010	mg/Kg	☼	04/18/17 09:47	04/24/17 19:17	1
Benzo[b]fluoranthene	0.0036	J	0.0067	0.0016	mg/Kg	☼	04/18/17 09:47	04/24/17 19:17	1
Benzo[k]fluoranthene	ND		0.0067	0.0013	mg/Kg	☼	04/18/17 09:47	04/24/17 19:17	1
Chrysene	ND		0.0067	0.0013	mg/Kg	☼	04/18/17 09:47	04/24/17 19:17	1
Dibenz(a,h)anthracene	ND		0.0067	0.0018	mg/Kg	☼	04/18/17 09:47	04/24/17 19:17	1
Fluoranthene	0.0020	J	0.0067	0.0013	mg/Kg	☼	04/18/17 09:47	04/24/17 19:17	1
Fluorene	ND		0.0067	0.00063	mg/Kg	☼	04/18/17 09:47	04/24/17 19:17	1
Indeno[1,2,3-cd]pyrene	ND		0.0067	0.0015	mg/Kg	☼	04/18/17 09:47	04/24/17 19:17	1
Naphthalene	0.0034	J	0.0067	0.00044	mg/Kg	☼	04/18/17 09:47	04/24/17 19:17	1
Pyrene	0.0025	J	0.0067	0.0015	mg/Kg	☼	04/18/17 09:47	04/24/17 19:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	84		39 - 120				04/18/17 09:47	04/24/17 19:17	1
Nitrobenzene-d5	132	X	42 - 120				04/18/17 09:47	04/24/17 19:17	1
Terphenyl-d14	82		35 - 124				04/18/17 09:47	04/24/17 19:17	1

Client Sample ID: RC-BA-08

Date Collected: 04/11/17 12:50

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-8

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0056	0.00018	mg/Kg	☼	04/18/17 09:47	04/24/17 19:43	1
Anthracene	ND		0.0056	0.00081	mg/Kg	☼	04/18/17 09:47	04/24/17 19:43	1
Benzo[a]anthracene	ND		0.0056	0.0010	mg/Kg	☼	04/18/17 09:47	04/24/17 19:43	1
Benzo[a]pyrene	ND		0.0056	0.00084	mg/Kg	☼	04/18/17 09:47	04/24/17 19:43	1
Benzo[b]fluoranthene	0.0027	J	0.0056	0.0014	mg/Kg	☼	04/18/17 09:47	04/24/17 19:43	1
Benzo[k]fluoranthene	ND		0.0056	0.0011	mg/Kg	☼	04/18/17 09:47	04/24/17 19:43	1
Chrysene	0.010		0.0056	0.0011	mg/Kg	☼	04/18/17 09:47	04/24/17 19:43	1
Dibenz(a,h)anthracene	0.0034	J	0.0056	0.0015	mg/Kg	☼	04/18/17 09:47	04/24/17 19:43	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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

Client Sample ID: RC-BA-08
Date Collected: 04/11/17 12:50
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-8
Matrix: Solid
Percent Solids: 87.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.0020	J	0.0056	0.0011	mg/Kg	☼	04/18/17 09:47	04/24/17 19:43	1
Fluorene	ND		0.0056	0.00053	mg/Kg	☼	04/18/17 09:47	04/24/17 19:43	1
Indeno[1,2,3-cd]pyrene	0.0017	J	0.0056	0.0012	mg/Kg	☼	04/18/17 09:47	04/24/17 19:43	1
Naphthalene	0.0014	J	0.0056	0.00037	mg/Kg	☼	04/18/17 09:47	04/24/17 19:43	1
Pyrene	0.0031	J	0.0056	0.0012	mg/Kg	☼	04/18/17 09:47	04/24/17 19:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	78		39 - 120				04/18/17 09:47	04/24/17 19:43	1
Nitrobenzene-d5	89		42 - 120				04/18/17 09:47	04/24/17 19:43	1
Terphenyl-d14	80		35 - 124				04/18/17 09:47	04/24/17 19:43	1

Client Sample ID: RC-BA-09
Date Collected: 04/11/17 12:40
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-9
Matrix: Solid
Percent Solids: 82.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0058	0.00019	mg/Kg	☼	04/18/17 09:47	04/24/17 20:09	1
Anthracene	ND		0.0058	0.00084	mg/Kg	☼	04/18/17 09:47	04/24/17 20:09	1
Benzo[a]anthracene	ND		0.0058	0.0011	mg/Kg	☼	04/18/17 09:47	04/24/17 20:09	1
Benzo[a]pyrene	ND		0.0058	0.00086	mg/Kg	☼	04/18/17 09:47	04/24/17 20:09	1
Benzo[b]fluoranthene	0.0032	J	0.0058	0.0014	mg/Kg	☼	04/18/17 09:47	04/24/17 20:09	1
Benzo[k]fluoranthene	ND		0.0058	0.0012	mg/Kg	☼	04/18/17 09:47	04/24/17 20:09	1
Chrysene	0.0057	J	0.0058	0.0012	mg/Kg	☼	04/18/17 09:47	04/24/17 20:09	1
Dibenz(a,h)anthracene	ND		0.0058	0.0015	mg/Kg	☼	04/18/17 09:47	04/24/17 20:09	1
Fluoranthene	0.0023	J	0.0058	0.0012	mg/Kg	☼	04/18/17 09:47	04/24/17 20:09	1
Fluorene	0.00073	J	0.0058	0.00055	mg/Kg	☼	04/18/17 09:47	04/24/17 20:09	1
Indeno[1,2,3-cd]pyrene	0.0021	J	0.0058	0.0013	mg/Kg	☼	04/18/17 09:47	04/24/17 20:09	1
Naphthalene	0.0036	J	0.0058	0.00038	mg/Kg	☼	04/18/17 09:47	04/24/17 20:09	1
Pyrene	0.0024	J	0.0058	0.0013	mg/Kg	☼	04/18/17 09:47	04/24/17 20:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	83		39 - 120				04/18/17 09:47	04/24/17 20:09	1
Nitrobenzene-d5	93		42 - 120				04/18/17 09:47	04/24/17 20:09	1
Terphenyl-d14	83		35 - 124				04/18/17 09:47	04/24/17 20:09	1

Client Sample ID: RC-BA-10
Date Collected: 04/11/17 12:30
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-10
Matrix: Solid
Percent Solids: 88.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0054	0.00017	mg/Kg	☼	04/18/17 09:47	04/24/17 20:35	1
Anthracene	ND		0.0054	0.00077	mg/Kg	☼	04/18/17 09:47	04/24/17 20:35	1
Benzo[a]anthracene	ND		0.0054	0.00096	mg/Kg	☼	04/18/17 09:47	04/24/17 20:35	1
Benzo[a]pyrene	ND		0.0054	0.00079	mg/Kg	☼	04/18/17 09:47	04/24/17 20:35	1
Benzo[b]fluoranthene	0.0028	J	0.0054	0.0013	mg/Kg	☼	04/18/17 09:47	04/24/17 20:35	1
Benzo[k]fluoranthene	ND		0.0054	0.0011	mg/Kg	☼	04/18/17 09:47	04/24/17 20:35	1
Chrysene	0.0060		0.0054	0.0011	mg/Kg	☼	04/18/17 09:47	04/24/17 20:35	1
Dibenz(a,h)anthracene	ND		0.0054	0.0014	mg/Kg	☼	04/18/17 09:47	04/24/17 20:35	1
Fluoranthene	0.0025	J	0.0054	0.0011	mg/Kg	☼	04/18/17 09:47	04/24/17 20:35	1
Fluorene	ND		0.0054	0.00050	mg/Kg	☼	04/18/17 09:47	04/24/17 20:35	1
Indeno[1,2,3-cd]pyrene	ND		0.0054	0.0012	mg/Kg	☼	04/18/17 09:47	04/24/17 20:35	1
Naphthalene	0.0016	J	0.0054	0.00035	mg/Kg	☼	04/18/17 09:47	04/24/17 20:35	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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

Client Sample ID: RC-BA-10
Date Collected: 04/11/17 12:30
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-10
Matrix: Solid
Percent Solids: 88.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	0.0028	J	0.0054	0.0012	mg/Kg	☼	04/18/17 09:47	04/24/17 20:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	72		39 - 120				04/18/17 09:47	04/24/17 20:35	1
Nitrobenzene-d5	84		42 - 120				04/18/17 09:47	04/24/17 20:35	1
Terphenyl-d14	71		35 - 124				04/18/17 09:47	04/24/17 20:35	1

Client Sample ID: RC-BA-DUP01
Date Collected: 04/11/17 10:50
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-11
Matrix: Solid
Percent Solids: 89.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.11	0.0035	mg/Kg	☼	04/18/17 09:47	04/24/17 21:02	20
Anthracene	ND		0.11	0.016	mg/Kg	☼	04/18/17 09:47	04/24/17 21:02	20
Benzo[a]anthracene	ND		0.11	0.020	mg/Kg	☼	04/18/17 09:47	04/24/17 21:02	20
Benzo[a]pyrene	ND		0.11	0.016	mg/Kg	☼	04/18/17 09:47	04/24/17 21:02	20
Benzo[b]fluoranthene	ND		0.11	0.026	mg/Kg	☼	04/18/17 09:47	04/24/17 21:02	20
Benzo[k]fluoranthene	ND		0.11	0.022	mg/Kg	☼	04/18/17 09:47	04/24/17 21:02	20
Chrysene	ND		0.11	0.022	mg/Kg	☼	04/18/17 09:47	04/24/17 21:02	20
Dibenz(a,h)anthracene	ND		0.11	0.028	mg/Kg	☼	04/18/17 09:47	04/24/17 21:02	20
Fluoranthene	ND		0.11	0.022	mg/Kg	☼	04/18/17 09:47	04/24/17 21:02	20
Fluorene	ND		0.11	0.010	mg/Kg	☼	04/18/17 09:47	04/24/17 21:02	20
Indeno[1,2,3-cd]pyrene	ND		0.11	0.024	mg/Kg	☼	04/18/17 09:47	04/24/17 21:02	20
Naphthalene	ND		0.11	0.0071	mg/Kg	☼	04/18/17 09:47	04/24/17 21:02	20
Pyrene	ND		0.11	0.024	mg/Kg	☼	04/18/17 09:47	04/24/17 21:02	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	74	D	39 - 120				04/18/17 09:47	04/24/17 21:02	20
Nitrobenzene-d5	104	D	42 - 120				04/18/17 09:47	04/24/17 21:02	20
Terphenyl-d14	90	D	35 - 124				04/18/17 09:47	04/24/17 21:02	20

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

Client Sample ID: RC-BA-01
Date Collected: 04/11/17 10:00
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-1
Matrix: Solid
Percent Solids: 78.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.3	0.37	mg/Kg	☼	04/11/17 10:00	04/18/17 23:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	82		77 - 123				04/11/17 10:00	04/18/17 23:34	1

Client Sample ID: RC-BA-02
Date Collected: 04/11/17 10:45
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-2
Matrix: Solid
Percent Solids: 89.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.3	0.34	mg/Kg	☼	04/11/17 10:45	04/18/17 22:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	91		77 - 123				04/11/17 10:45	04/18/17 22:45	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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

Client Sample ID: RC-BA-03
Date Collected: 04/11/17 12:00
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-3
Matrix: Solid
Percent Solids: 85.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.2	0.32	mg/Kg	☼	04/11/17 12:00	04/19/17 00:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	85		77 - 123				04/11/17 12:00	04/19/17 00:48	1

Client Sample ID: RC-BA-04
Date Collected: 04/11/17 12:08
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-4
Matrix: Solid
Percent Solids: 95.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.2	0.33	mg/Kg	☼	04/11/17 12:08	04/19/17 01:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	90		77 - 123				04/11/17 12:08	04/19/17 01:13	1

Client Sample ID: RC-BA-05
Date Collected: 04/11/17 11:30
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-5
Matrix: Solid
Percent Solids: 79.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.3	0.36	mg/Kg	☼	04/11/17 11:30	04/19/17 01:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	74	X	77 - 123				04/11/17 11:30	04/19/17 01:38	1

Client Sample ID: RC-BA-06
Date Collected: 04/11/17 11:10
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-6
Matrix: Solid
Percent Solids: 81.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	0.74	J	1.4	0.39	mg/Kg	☼	04/11/17 11:10	04/19/17 02:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	82		77 - 123				04/11/17 11:10	04/19/17 02:02	1

Client Sample ID: RC-BA-07
Date Collected: 04/11/17 12:15
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-7
Matrix: Solid
Percent Solids: 73.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.4	0.38	mg/Kg	☼	04/11/17 12:15	04/19/17 02:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	68	X	77 - 123				04/11/17 12:15	04/19/17 02:27	1

Client Sample ID: RC-BA-08
Date Collected: 04/11/17 12:50
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-8
Matrix: Solid
Percent Solids: 87.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.1	0.31	mg/Kg	☼	04/11/17 12:50	04/19/17 02:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	94		77 - 123				04/11/17 12:50	04/19/17 02:51	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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

Client Sample ID: RC-BA-09
Date Collected: 04/11/17 12:40
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-9
Matrix: Solid
Percent Solids: 82.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	6.1		1.5	0.41	mg/Kg	☼	04/11/17 12:40	04/19/17 03:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	87		77 - 123				04/11/17 12:40	04/19/17 03:16	1

Client Sample ID: RC-BA-10
Date Collected: 04/11/17 12:30
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-10
Matrix: Solid
Percent Solids: 88.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	0.62	J	1.6	0.43	mg/Kg	☼	04/11/17 12:30	04/19/17 03:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	98		77 - 123				04/11/17 12:30	04/19/17 03:41	1

Client Sample ID: RC-BA-DUP01
Date Collected: 04/11/17 10:50
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-11
Matrix: Solid
Percent Solids: 89.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.2	0.32	mg/Kg	☼	04/11/17 10:50	04/19/17 04:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	78		77 - 123				04/11/17 10:50	04/19/17 04:05	1

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

Client Sample ID: RC-BA-01
Date Collected: 04/11/17 10:00
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-1
Matrix: Solid
Percent Solids: 78.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	2.9	J	5.0	0.85	mg/Kg	☼	04/13/17 08:29	04/22/17 05:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	90		49 - 115				04/13/17 08:29	04/22/17 05:51	1

Client Sample ID: RC-BA-02
Date Collected: 04/11/17 10:45
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-2
Matrix: Solid
Percent Solids: 89.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	440		4.4	0.74	mg/Kg	☼	04/13/17 08:29	04/22/17 07:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	107		49 - 115				04/13/17 08:29	04/22/17 07:53	1

Client Sample ID: RC-BA-03
Date Collected: 04/11/17 12:00
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-3
Matrix: Solid
Percent Solids: 85.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	46		4.7	0.79	mg/Kg	☼	04/19/17 09:05	04/24/17 23:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	115		49 - 115				04/19/17 09:05	04/24/17 23:04	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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

Client Sample ID: RC-BA-04
Date Collected: 04/11/17 12:08
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-4
Matrix: Solid
Percent Solids: 95.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	4.8		4.0	0.68	mg/Kg	☼	04/13/17 08:29	04/22/17 08:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	92		49 - 115				04/13/17 08:29	04/22/17 08:18	1

Client Sample ID: RC-BA-05
Date Collected: 04/11/17 11:30
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-5
Matrix: Solid
Percent Solids: 79.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	39		4.6	0.78	mg/Kg	☼	04/13/17 08:29	04/22/17 08:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	93		49 - 115				04/13/17 08:29	04/22/17 08:42	1

Client Sample ID: RC-BA-06
Date Collected: 04/11/17 11:10
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-6
Matrix: Solid
Percent Solids: 81.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	15		4.8	0.81	mg/Kg	☼	04/13/17 08:29	04/22/17 09:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	79		49 - 115				04/13/17 08:29	04/22/17 09:06	1

Client Sample ID: RC-BA-07
Date Collected: 04/11/17 12:15
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-7
Matrix: Solid
Percent Solids: 73.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	34		5.3	0.90	mg/Kg	☼	04/13/17 08:29	04/22/17 09:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	38	X	49 - 115				04/13/17 08:29	04/22/17 09:31	1

Client Sample ID: RC-BA-08
Date Collected: 04/11/17 12:50
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-8
Matrix: Solid
Percent Solids: 87.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	77		4.3	0.74	mg/Kg	☼	04/13/17 08:29	04/22/17 09:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	98		49 - 115				04/13/17 08:29	04/22/17 09:55	1

Client Sample ID: RC-BA-09
Date Collected: 04/11/17 12:40
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-9
Matrix: Solid
Percent Solids: 82.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	12		4.6	0.79	mg/Kg	☼	04/13/17 08:29	04/22/17 10:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	68		49 - 115				04/13/17 08:29	04/22/17 10:19	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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

Client Sample ID: RC-BA-10
Date Collected: 04/11/17 12:30
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-10
Matrix: Solid
Percent Solids: 88.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	38		4.5	0.77	mg/Kg	☼	04/19/17 09:05	04/24/17 23:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	105		49 - 115				04/19/17 09:05	04/24/17 23:29	1

Client Sample ID: RC-BA-DUP01
Date Collected: 04/11/17 10:50
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-11
Matrix: Solid
Percent Solids: 89.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	580		4.3	0.73	mg/Kg	☼	04/13/17 08:29	04/22/17 10:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	133	X	49 - 115				04/13/17 08:29	04/22/17 10:44	1

Method: 20B - Sodium Adsorption Ratio - Soluble

Client Sample ID: RC-BA-01
Date Collected: 04/11/17 10:00
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-1
Matrix: Solid
Percent Solids: 78.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	2900		10	10	mg/Kg		04/12/17 12:15	04/20/17 01:58	10
Ca	1200		2.0	2.0	mg/Kg		04/12/17 12:15	04/20/17 01:58	10
Mg	330		2.0	2.0	mg/Kg		04/12/17 12:15	04/20/17 01:58	10
Sodium Adsorption Ratio	19		1.2	1.2	No Unit		04/12/17 12:15	04/20/17 01:58	10

Client Sample ID: RC-BA-02
Date Collected: 04/11/17 10:45
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-2
Matrix: Solid
Percent Solids: 89.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	52		10	10	mg/Kg		04/12/17 12:15	04/20/17 02:07	10
Ca	120		2.0	2.0	mg/Kg		04/12/17 12:15	04/20/17 02:07	10
Mg	22		2.0	2.0	mg/Kg		04/12/17 12:15	04/20/17 02:07	10
Sodium Adsorption Ratio	ND		1.2	1.2	No Unit		04/12/17 12:15	04/20/17 02:07	10

Client Sample ID: RC-BA-03
Date Collected: 04/11/17 12:00
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-3
Matrix: Solid
Percent Solids: 85.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	13		10	10	mg/Kg		04/12/17 12:15	04/20/17 02:10	10
Ca	65		2.0	2.0	mg/Kg		04/12/17 12:15	04/20/17 02:10	10
Mg	10		2.0	2.0	mg/Kg		04/12/17 12:15	04/20/17 02:10	10
Sodium Adsorption Ratio	ND		1.2	1.2	No Unit		04/12/17 12:15	04/20/17 02:10	10

Client Sample ID: RC-BA-04
Date Collected: 04/11/17 12:08
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-4
Matrix: Solid
Percent Solids: 95.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	670		10	10	mg/Kg		04/12/17 12:15	04/20/17 02:12	10
Ca	67		2.0	2.0	mg/Kg		04/12/17 12:15	04/20/17 02:12	10
Mg	11		2.0	2.0	mg/Kg		04/12/17 12:15	04/20/17 02:12	10
Sodium Adsorption Ratio	20		1.2	1.2	No Unit		04/12/17 12:15	04/20/17 02:12	10

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Method: 20B - Sodium Adsorption Ratio - Soluble

Client Sample ID: RC-BA-05
Date Collected: 04/11/17 11:30
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-5
Matrix: Solid
Percent Solids: 79.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	38		10	10	mg/Kg		04/12/17 12:15	04/20/17 02:15	10
Ca	100		2.0	2.0	mg/Kg		04/12/17 12:15	04/20/17 02:15	10
Mg	15		2.0	2.0	mg/Kg		04/12/17 12:15	04/20/17 02:15	10
Sodium Adsorption Ratio	ND		1.2	1.2	No Unit		04/12/17 12:15	04/20/17 02:15	10

Client Sample ID: RC-BA-06
Date Collected: 04/11/17 11:10
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-6
Matrix: Solid
Percent Solids: 81.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	53		10	10	mg/Kg		04/12/17 12:15	04/20/17 02:18	10
Ca	130		2.0	2.0	mg/Kg		04/12/17 12:15	04/20/17 02:18	10
Mg	25		2.0	2.0	mg/Kg		04/12/17 12:15	04/20/17 02:18	10
Sodium Adsorption Ratio	ND		1.2	1.2	No Unit		04/12/17 12:15	04/20/17 02:18	10

Client Sample ID: RC-BA-07
Date Collected: 04/11/17 12:15
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-7
Matrix: Solid
Percent Solids: 73.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	19		10	10	mg/Kg		04/12/17 12:15	04/20/17 02:21	10
Ca	87		2.0	2.0	mg/Kg		04/12/17 12:15	04/20/17 02:21	10
Mg	15		2.0	2.0	mg/Kg		04/12/17 12:15	04/20/17 02:21	10
Sodium Adsorption Ratio	ND		1.2	1.2	No Unit		04/12/17 12:15	04/20/17 02:21	10

Client Sample ID: RC-BA-08
Date Collected: 04/11/17 12:50
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-8
Matrix: Solid
Percent Solids: 87.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	640		10	10	mg/Kg		04/12/17 12:15	04/20/17 02:35	10
Ca	77		2.0	2.0	mg/Kg		04/12/17 12:15	04/20/17 02:35	10
Mg	45		2.0	2.0	mg/Kg		04/12/17 12:15	04/20/17 02:35	10
Sodium Adsorption Ratio	14		1.2	1.2	No Unit		04/12/17 12:15	04/20/17 02:35	10

Client Sample ID: RC-BA-09
Date Collected: 04/11/17 12:40
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-9
Matrix: Solid
Percent Solids: 82.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	470		10	10	mg/Kg		04/12/17 12:15	04/20/17 02:38	10
Ca	30		2.0	2.0	mg/Kg		04/12/17 12:15	04/20/17 02:38	10
Mg	20		2.0	2.0	mg/Kg		04/12/17 12:15	04/20/17 02:38	10
Sodium Adsorption Ratio	16		1.2	1.2	No Unit		04/12/17 12:15	04/20/17 02:38	10

Client Sample ID: RC-BA-10
Date Collected: 04/11/17 12:30
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-10
Matrix: Solid
Percent Solids: 88.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	2700		10	10	mg/Kg		04/12/17 12:15	04/20/17 02:41	10
Ca	500		2.0	2.0	mg/Kg		04/12/17 12:15	04/20/17 02:41	10
Mg	350		2.0	2.0	mg/Kg		04/12/17 12:15	04/20/17 02:41	10
Sodium Adsorption Ratio	22		1.2	1.2	No Unit		04/12/17 12:15	04/20/17 02:41	10

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Method: 20B - Sodium Adsorption Ratio - Soluble

Client Sample ID: RC-BA-DUP01

Date Collected: 04/11/17 10:50

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-11

Matrix: Solid

Percent Solids: 89.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	62		10	10	mg/Kg		04/12/17 12:15	04/20/17 02:44	10
Ca	200		2.0	2.0	mg/Kg		04/12/17 12:15	04/20/17 02:44	10
Mg	36		2.0	2.0	mg/Kg		04/12/17 12:15	04/20/17 02:44	10
Sodium Adsorption Ratio	ND		1.2	1.2	No Unit		04/12/17 12:15	04/20/17 02:44	10

Method: 6010C - Metals (ICP)

Client Sample ID: RC-BA-01

Date Collected: 04/11/17 10:00

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-1

Matrix: Solid

Percent Solids: 78.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	440	F1	1.3	0.13	mg/Kg	✱	04/13/17 14:35	04/16/17 06:23	1
Cadmium	0.35	J	0.63	0.052	mg/Kg	✱	04/13/17 14:35	04/16/17 06:23	1
Chromium	16		1.9	0.073	mg/Kg	✱	04/13/17 14:35	04/16/17 06:23	1
Lead	18		1.1	0.39	mg/Kg	✱	04/13/17 14:35	04/16/17 06:23	1
Boron	15		13	1.2	mg/Kg	✱	04/13/17 14:35	04/16/17 06:23	1
Selenium	ND		1.9	1.1	mg/Kg	✱	04/13/17 14:35	04/16/17 06:23	1
Silver	ND		1.3	0.20	mg/Kg	✱	04/13/17 14:35	04/16/17 06:23	1
Calcium	22000	B	63	18	mg/Kg	✱	04/13/17 14:35	04/16/17 06:23	1
Copper	16	B	2.5	0.27	mg/Kg	✱	04/13/17 14:35	04/16/17 18:34	1
Magnesium	12000	B	25	4.7	mg/Kg	✱	04/13/17 14:35	04/16/17 06:23	1
Nickel	17		5.0	0.17	mg/Kg	✱	04/13/17 14:35	04/16/17 06:23	1
Sodium	2000		630	74	mg/Kg	✱	04/13/17 14:35	04/16/17 06:23	1
Zinc	76		3.8	0.50	mg/Kg	✱	04/13/17 14:35	04/16/17 06:23	1

Client Sample ID: RC-BA-02

Date Collected: 04/11/17 10:45

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-2

Matrix: Solid

Percent Solids: 89.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	220		1.0	0.10	mg/Kg	✱	04/13/17 14:35	04/16/17 06:35	1
Cadmium	0.37	J	0.50	0.041	mg/Kg	✱	04/13/17 14:35	04/16/17 06:35	1
Chromium	14		1.5	0.058	mg/Kg	✱	04/13/17 14:35	04/16/17 06:35	1
Lead	15		0.90	0.31	mg/Kg	✱	04/13/17 14:35	04/16/17 06:35	1
Boron	12		10	0.98	mg/Kg	✱	04/13/17 14:35	04/16/17 06:35	1
Selenium	0.97	J	1.5	0.86	mg/Kg	✱	04/13/17 14:35	04/16/17 06:35	1
Silver	ND		1.0	0.16	mg/Kg	✱	04/13/17 14:35	04/16/17 06:35	1
Calcium	25000	B	50	14	mg/Kg	✱	04/13/17 14:35	04/16/17 06:35	1
Copper	14	B	2.0	0.22	mg/Kg	✱	04/13/17 14:35	04/16/17 18:47	1
Magnesium	10000	B	20	3.7	mg/Kg	✱	04/13/17 14:35	04/16/17 06:35	1
Nickel	16		4.0	0.13	mg/Kg	✱	04/13/17 14:35	04/16/17 06:35	1
Sodium	360	J	500	59	mg/Kg	✱	04/13/17 14:35	04/16/17 06:35	1
Zinc	130		3.0	0.40	mg/Kg	✱	04/13/17 14:35	04/16/17 06:35	1

Client Sample ID: RC-BA-03

Date Collected: 04/11/17 12:00

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-3

Matrix: Solid

Percent Solids: 85.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	220		1.1	0.12	mg/Kg	✱	04/13/17 14:35	04/16/17 06:38	1
Cadmium	0.47	J	0.56	0.046	mg/Kg	✱	04/13/17 14:35	04/16/17 06:38	1
Chromium	18		1.7	0.065	mg/Kg	✱	04/13/17 14:35	04/16/17 06:38	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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

Client Sample ID: RC-BA-03
Date Collected: 04/11/17 12:00
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-3
Matrix: Solid
Percent Solids: 85.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	18		1.0	0.35	mg/Kg	☼	04/13/17 14:35	04/16/17 06:38	1
Boron	14		11	1.1	mg/Kg	☼	04/13/17 14:35	04/16/17 06:38	1
Selenium	1.3	J	1.7	0.96	mg/Kg	☼	04/13/17 14:35	04/16/17 06:38	1
Silver	ND		1.1	0.18	mg/Kg	☼	04/13/17 14:35	04/16/17 06:38	1
Calcium	23000	B	56	16	mg/Kg	☼	04/13/17 14:35	04/16/17 06:38	1
Copper	18	B	2.2	0.24	mg/Kg	☼	04/13/17 14:35	04/16/17 18:49	1
Magnesium	12000	B	22	4.1	mg/Kg	☼	04/13/17 14:35	04/16/17 06:38	1
Nickel	20		4.5	0.15	mg/Kg	☼	04/13/17 14:35	04/16/17 06:38	1
Sodium	240	J	560	66	mg/Kg	☼	04/13/17 14:35	04/16/17 06:38	1
Zinc	90		3.4	0.44	mg/Kg	☼	04/13/17 14:35	04/16/17 06:38	1

Client Sample ID: RC-BA-04
Date Collected: 04/11/17 12:08
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-4
Matrix: Solid
Percent Solids: 95.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	220		0.90	0.093	mg/Kg	☼	04/13/17 14:35	04/16/17 06:41	1
Cadmium	0.43	J	0.45	0.037	mg/Kg	☼	04/13/17 14:35	04/16/17 06:41	1
Chromium	14		1.3	0.052	mg/Kg	☼	04/13/17 14:35	04/16/17 06:41	1
Lead	16		0.81	0.28	mg/Kg	☼	04/13/17 14:35	04/16/17 06:41	1
Boron	14		9.0	0.88	mg/Kg	☼	04/13/17 14:35	04/16/17 06:41	1
Selenium	ND		1.3	0.77	mg/Kg	☼	04/13/17 14:35	04/16/17 06:41	1
Silver	ND		0.90	0.14	mg/Kg	☼	04/13/17 14:35	04/16/17 06:41	1
Calcium	24000	B	45	13	mg/Kg	☼	04/13/17 14:35	04/16/17 06:41	1
Copper	15	B	1.8	0.19	mg/Kg	☼	04/13/17 14:35	04/16/17 18:52	1
Magnesium	12000	B	18	3.3	mg/Kg	☼	04/13/17 14:35	04/16/17 06:41	1
Nickel	16		3.6	0.12	mg/Kg	☼	04/13/17 14:35	04/16/17 06:41	1
Sodium	870		450	53	mg/Kg	☼	04/13/17 14:35	04/16/17 06:41	1
Zinc	75		2.7	0.36	mg/Kg	☼	04/13/17 14:35	04/16/17 06:41	1

Client Sample ID: RC-BA-05
Date Collected: 04/11/17 11:30
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-5
Matrix: Solid
Percent Solids: 79.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	200		0.84	0.088	mg/Kg	☼	04/13/17 14:35	04/16/17 06:53	1
Cadmium	0.40	J	0.42	0.035	mg/Kg	☼	04/13/17 14:35	04/16/17 06:53	1
Chromium	16		1.3	0.049	mg/Kg	☼	04/13/17 14:35	04/16/17 06:53	1
Lead	16		0.76	0.26	mg/Kg	☼	04/13/17 14:35	04/16/17 06:53	1
Boron	14		8.4	0.83	mg/Kg	☼	04/13/17 14:35	04/16/17 06:53	1
Selenium	0.79	J	1.3	0.72	mg/Kg	☼	04/13/17 14:35	04/16/17 06:53	1
Silver	ND		0.84	0.13	mg/Kg	☼	04/13/17 14:35	04/16/17 06:53	1
Calcium	22000	B	42	12	mg/Kg	☼	04/13/17 14:35	04/16/17 06:53	1
Copper	20	B	1.7	0.18	mg/Kg	☼	04/13/17 14:35	04/16/17 19:04	1
Magnesium	11000	B	17	3.1	mg/Kg	☼	04/13/17 14:35	04/16/17 06:53	1
Nickel	18		3.4	0.11	mg/Kg	☼	04/13/17 14:35	04/16/17 06:53	1
Sodium	330	J	420	50	mg/Kg	☼	04/13/17 14:35	04/16/17 06:53	1
Zinc	100		2.5	0.34	mg/Kg	☼	04/13/17 14:35	04/16/17 06:53	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Method: 6010C - Metals (ICP)

Client Sample ID: RC-BA-06
Date Collected: 04/11/17 11:10
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-6
Matrix: Solid
Percent Solids: 81.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	140		1.2	0.13	mg/Kg	☼	04/13/17 14:35	04/16/17 06:56	1
Cadmium	0.35	J	0.62	0.051	mg/Kg	☼	04/13/17 14:35	04/16/17 06:56	1
Chromium	17		1.9	0.072	mg/Kg	☼	04/13/17 14:35	04/16/17 06:56	1
Lead	16		1.1	0.38	mg/Kg	☼	04/13/17 14:35	04/16/17 06:56	1
Boron	13		12	1.2	mg/Kg	☼	04/13/17 14:35	04/16/17 06:56	1
Selenium	ND		1.9	1.1	mg/Kg	☼	04/13/17 14:35	04/16/17 06:56	1
Silver	ND		1.2	0.20	mg/Kg	☼	04/13/17 14:35	04/16/17 06:56	1
Calcium	22000	B	62	17	mg/Kg	☼	04/13/17 14:35	04/16/17 06:56	1
Copper	16	B	2.5	0.27	mg/Kg	☼	04/13/17 14:35	04/16/17 19:07	1
Magnesium	11000	B	25	4.6	mg/Kg	☼	04/13/17 14:35	04/16/17 06:56	1
Nickel	17		4.9	0.16	mg/Kg	☼	04/13/17 14:35	04/16/17 06:56	1
Sodium	240	J	620	73	mg/Kg	☼	04/13/17 14:35	04/16/17 06:56	1
Zinc	75		3.7	0.49	mg/Kg	☼	04/13/17 14:35	04/16/17 06:56	1

Client Sample ID: RC-BA-07
Date Collected: 04/11/17 12:15
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-7
Matrix: Solid
Percent Solids: 73.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	210		1.3	0.14	mg/Kg	☼	04/13/17 14:35	04/16/17 06:58	1
Cadmium	0.41	J	0.67	0.055	mg/Kg	☼	04/13/17 14:35	04/16/17 06:58	1
Chromium	23		2.0	0.077	mg/Kg	☼	04/13/17 14:35	04/16/17 06:58	1
Lead	19		1.2	0.41	mg/Kg	☼	04/13/17 14:35	04/16/17 06:58	1
Boron	19		13	1.3	mg/Kg	☼	04/13/17 14:35	04/16/17 06:58	1
Selenium	ND		2.0	1.1	mg/Kg	☼	04/13/17 14:35	04/16/17 06:58	1
Silver	ND		1.3	0.21	mg/Kg	☼	04/13/17 14:35	04/16/17 06:58	1
Calcium	23000	B	67	19	mg/Kg	☼	04/13/17 14:35	04/16/17 06:58	1
Copper	18	B	2.7	0.29	mg/Kg	☼	04/13/17 14:35	04/16/17 19:10	1
Magnesium	12000	B	27	4.9	mg/Kg	☼	04/13/17 14:35	04/16/17 06:58	1
Nickel	21		5.3	0.18	mg/Kg	☼	04/13/17 14:35	04/16/17 06:58	1
Sodium	280	J	670	78	mg/Kg	☼	04/13/17 14:35	04/16/17 06:58	1
Zinc	94		4.0	0.53	mg/Kg	☼	04/13/17 14:35	04/16/17 06:58	1

Client Sample ID: RC-BA-08
Date Collected: 04/11/17 12:50
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-8
Matrix: Solid
Percent Solids: 87.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	190		0.88	0.091	mg/Kg	☼	04/13/17 14:35	04/16/17 07:01	1
Cadmium	0.29	J	0.44	0.036	mg/Kg	☼	04/13/17 14:35	04/16/17 07:01	1
Chromium	12		1.3	0.051	mg/Kg	☼	04/13/17 14:35	04/16/17 07:01	1
Lead	14		0.79	0.27	mg/Kg	☼	04/13/17 14:35	04/16/17 07:01	1
Boron	11		8.8	0.86	mg/Kg	☼	04/13/17 14:35	04/16/17 07:01	1
Selenium	0.97	J	1.3	0.75	mg/Kg	☼	04/13/17 14:35	04/16/17 07:01	1
Silver	ND		0.88	0.14	mg/Kg	☼	04/13/17 14:35	04/16/17 07:01	1
Calcium	23000	B	44	12	mg/Kg	☼	04/13/17 14:35	04/16/17 07:01	1
Copper	14	B	1.8	0.19	mg/Kg	☼	04/13/17 14:35	04/16/17 19:12	1
Magnesium	11000	B	18	3.2	mg/Kg	☼	04/13/17 14:35	04/16/17 07:01	1
Nickel	16		3.5	0.12	mg/Kg	☼	04/13/17 14:35	04/16/17 07:01	1
Sodium	800		440	52	mg/Kg	☼	04/13/17 14:35	04/16/17 07:01	1
Zinc	72		2.6	0.35	mg/Kg	☼	04/13/17 14:35	04/16/17 07:01	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Method: 6010C - Metals (ICP)

Client Sample ID: RC-BA-09
Date Collected: 04/11/17 12:40
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-9
Matrix: Solid
Percent Solids: 82.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	130		0.99	0.10	mg/Kg	☼	04/13/17 14:35	04/16/17 07:04	1
Cadmium	0.29	J	0.49	0.041	mg/Kg	☼	04/13/17 14:35	04/16/17 07:04	1
Chromium	13		1.5	0.057	mg/Kg	☼	04/13/17 14:35	04/16/17 07:04	1
Lead	15		0.89	0.31	mg/Kg	☼	04/13/17 14:35	04/16/17 07:04	1
Boron	12		9.9	0.97	mg/Kg	☼	04/13/17 14:35	04/16/17 07:04	1
Selenium	ND		1.5	0.85	mg/Kg	☼	04/13/17 14:35	04/16/17 07:04	1
Silver	ND		0.99	0.16	mg/Kg	☼	04/13/17 14:35	04/16/17 07:04	1
Calcium	23000	B	49	14	mg/Kg	☼	04/13/17 14:35	04/16/17 07:04	1
Copper	14	B	2.0	0.21	mg/Kg	☼	04/13/17 14:35	04/16/17 19:15	1
Magnesium	14000	B	20	3.7	mg/Kg	☼	04/13/17 14:35	04/16/17 07:04	1
Nickel	15		4.0	0.13	mg/Kg	☼	04/13/17 14:35	04/16/17 07:04	1
Sodium	790		490	58	mg/Kg	☼	04/13/17 14:35	04/16/17 07:04	1
Zinc	71		3.0	0.39	mg/Kg	☼	04/13/17 14:35	04/16/17 07:04	1

Client Sample ID: RC-BA-10
Date Collected: 04/11/17 12:30
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-10
Matrix: Solid
Percent Solids: 88.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	130		1.1	0.12	mg/Kg	☼	04/13/17 14:35	04/16/17 07:06	1
Cadmium	0.30	J	0.56	0.046	mg/Kg	☼	04/13/17 14:35	04/16/17 07:06	1
Chromium	13		1.7	0.065	mg/Kg	☼	04/13/17 14:35	04/16/17 07:06	1
Lead	15		1.0	0.35	mg/Kg	☼	04/13/17 14:35	04/16/17 07:06	1
Boron	12		11	1.1	mg/Kg	☼	04/13/17 14:35	04/16/17 07:06	1
Selenium	ND		1.7	0.96	mg/Kg	☼	04/13/17 14:35	04/16/17 07:06	1
Silver	ND		1.1	0.18	mg/Kg	☼	04/13/17 14:35	04/16/17 07:06	1
Calcium	25000	B	56	16	mg/Kg	☼	04/13/17 14:35	04/16/17 07:06	1
Copper	14	B	2.2	0.24	mg/Kg	☼	04/13/17 14:35	04/16/17 19:17	1
Magnesium	14000	B	22	4.1	mg/Kg	☼	04/13/17 14:35	04/16/17 07:06	1
Nickel	15		4.5	0.15	mg/Kg	☼	04/13/17 14:35	04/16/17 07:06	1
Sodium	1900		560	66	mg/Kg	☼	04/13/17 14:35	04/16/17 07:06	1
Zinc	71		3.4	0.45	mg/Kg	☼	04/13/17 14:35	04/16/17 07:06	1

Client Sample ID: RC-BA-DUP01
Date Collected: 04/11/17 10:50
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-11
Matrix: Solid
Percent Solids: 89.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	200		1.1	0.11	mg/Kg	☼	04/13/17 14:35	04/16/17 07:09	1
Cadmium	0.36	J	0.55	0.045	mg/Kg	☼	04/13/17 14:35	04/16/17 07:09	1
Chromium	13		1.6	0.063	mg/Kg	☼	04/13/17 14:35	04/16/17 07:09	1
Lead	15		0.98	0.34	mg/Kg	☼	04/13/17 14:35	04/16/17 07:09	1
Boron	10	J	11	1.1	mg/Kg	☼	04/13/17 14:35	04/16/17 07:09	1
Selenium	ND		1.6	0.94	mg/Kg	☼	04/13/17 14:35	04/16/17 07:09	1
Silver	ND		1.1	0.18	mg/Kg	☼	04/13/17 14:35	04/16/17 07:09	1
Calcium	25000	B	55	15	mg/Kg	☼	04/13/17 14:35	04/16/17 07:09	1
Copper	14	B	2.2	0.24	mg/Kg	☼	04/13/17 14:35	04/16/17 19:20	1
Magnesium	11000	B	22	4.0	mg/Kg	☼	04/13/17 14:35	04/16/17 07:09	1
Nickel	16		4.4	0.14	mg/Kg	☼	04/13/17 14:35	04/16/17 07:09	1
Sodium	350	J	550	65	mg/Kg	☼	04/13/17 14:35	04/16/17 07:09	1
Zinc	110		3.3	0.44	mg/Kg	☼	04/13/17 14:35	04/16/17 07:09	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: RC-BA-01
Date Collected: 04/11/17 10:00
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-1
Matrix: Solid
Percent Solids: 78.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.9		0.68	0.057	mg/Kg	☼	04/13/17 14:35	04/14/17 15:43	1

Client Sample ID: RC-BA-02
Date Collected: 04/11/17 10:45
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-2
Matrix: Solid
Percent Solids: 89.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.2		0.58	0.049	mg/Kg	☼	04/13/17 14:35	04/14/17 16:02	1

Client Sample ID: RC-BA-03
Date Collected: 04/11/17 12:00
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-3
Matrix: Solid
Percent Solids: 85.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.6		0.67	0.056	mg/Kg	☼	04/13/17 14:35	04/14/17 16:05	1

Client Sample ID: RC-BA-04
Date Collected: 04/11/17 12:08
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-4
Matrix: Solid
Percent Solids: 95.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.0		0.50	0.042	mg/Kg	☼	04/13/17 14:35	04/14/17 16:20	1

Client Sample ID: RC-BA-05
Date Collected: 04/11/17 11:30
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-5
Matrix: Solid
Percent Solids: 79.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.8		0.52	0.044	mg/Kg	☼	04/13/17 14:35	04/14/17 16:24	1

Client Sample ID: RC-BA-06
Date Collected: 04/11/17 11:10
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-6
Matrix: Solid
Percent Solids: 81.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.1		0.69	0.058	mg/Kg	☼	04/13/17 14:35	04/14/17 16:28	1

Client Sample ID: RC-BA-07
Date Collected: 04/11/17 12:15
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-7
Matrix: Solid
Percent Solids: 73.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.0		0.73	0.062	mg/Kg	☼	04/13/17 14:35	04/14/17 16:32	1

Client Sample ID: RC-BA-08
Date Collected: 04/11/17 12:50
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-8
Matrix: Solid
Percent Solids: 87.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.2		0.60	0.051	mg/Kg	☼	04/13/17 14:35	04/14/17 16:36	1

Client Sample ID: RC-BA-09
Date Collected: 04/11/17 12:40
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-9
Matrix: Solid
Percent Solids: 82.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.8		0.60	0.051	mg/Kg	☼	04/13/17 14:35	04/14/17 16:39	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: RC-BA-10
Date Collected: 04/11/17 12:30
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-10
Matrix: Solid
Percent Solids: 88.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.7		0.59	0.050	mg/Kg	☼	04/13/17 14:35	04/14/17 16:43	1

Client Sample ID: RC-BA-DUP01
Date Collected: 04/11/17 10:50
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-11
Matrix: Solid
Percent Solids: 89.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.1		0.51	0.043	mg/Kg	☼	04/13/17 14:35	04/14/17 16:47	1

Method: 7471A - Mercury (CVAA)

Client Sample ID: RC-BA-01
Date Collected: 04/11/17 10:00
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-1
Matrix: Solid
Percent Solids: 78.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.023	0.0074	mg/Kg	☼	04/19/17 12:39	04/19/17 21:22	1

Client Sample ID: RC-BA-02
Date Collected: 04/11/17 10:45
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-2
Matrix: Solid
Percent Solids: 89.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.023		0.021	0.0069	mg/Kg	☼	04/19/17 12:39	04/19/17 21:28	1

Client Sample ID: RC-BA-03
Date Collected: 04/11/17 12:00
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-3
Matrix: Solid
Percent Solids: 85.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.034		0.022	0.0072	mg/Kg	☼	04/19/17 12:39	04/19/17 21:35	1

Client Sample ID: RC-BA-04
Date Collected: 04/11/17 12:08
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-4
Matrix: Solid
Percent Solids: 95.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019		0.019	0.0062	mg/Kg	☼	04/19/17 12:39	04/19/17 21:38	1

Client Sample ID: RC-BA-05
Date Collected: 04/11/17 11:30
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-5
Matrix: Solid
Percent Solids: 79.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.090		0.023	0.0076	mg/Kg	☼	04/19/17 12:39	04/19/17 21:40	1

Client Sample ID: RC-BA-06
Date Collected: 04/11/17 11:10
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-6
Matrix: Solid
Percent Solids: 81.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.022	J	0.024	0.0077	mg/Kg	☼	04/19/17 12:39	04/19/17 21:42	1

Client Sample ID: RC-BA-07
Date Collected: 04/11/17 12:15
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-7
Matrix: Solid
Percent Solids: 73.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.065		0.026	0.0084	mg/Kg	☼	04/19/17 12:39	04/19/17 21:45	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: RC-BA-08
Date Collected: 04/11/17 12:50
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-8
Matrix: Solid
Percent Solids: 87.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.020	0.0066	mg/Kg	☼	04/19/17 12:39	04/19/17 21:47	1

Client Sample ID: RC-BA-09
Date Collected: 04/11/17 12:40
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-9
Matrix: Solid
Percent Solids: 82.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020	J	0.023	0.0076	mg/Kg	☼	04/19/17 12:39	04/19/17 21:49	1

Client Sample ID: RC-BA-10
Date Collected: 04/11/17 12:30
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-10
Matrix: Solid
Percent Solids: 88.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020	J	0.023	0.0075	mg/Kg	☼	04/19/17 12:39	04/19/17 21:52	1

Client Sample ID: RC-BA-DUP01
Date Collected: 04/11/17 10:50
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-11
Matrix: Solid
Percent Solids: 89.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.020	0.0064	mg/Kg	☼	04/19/17 12:39	04/19/17 21:54	1

General Chemistry

Client Sample ID: RC-BA-01
Date Collected: 04/11/17 10:00
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-1
Matrix: Solid
Percent Solids: 78.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	ND		6.1	2.4	mg/Kg	☼	04/22/17 11:27	04/23/17 15:30	1
Chromium, trivalent	16		6.3	2.5	mg/Kg	☼		04/23/17 15:30	1
Percent Moisture	21.1		0.1	0.1	%			04/14/17 09:43	1
Percent Solids	78.9		0.1	0.1	%			04/14/17 09:43	1

Client Sample ID: RC-BA-02
Date Collected: 04/11/17 10:45
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-2
Matrix: Solid
Percent Solids: 89.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	ND		5.6	2.2	mg/Kg	☼	04/22/17 11:27	04/23/17 15:30	1
Chromium, trivalent	14		5.6	2.2	mg/Kg	☼		04/23/17 15:30	1
Percent Moisture	10.6		0.1	0.1	%			04/14/17 09:43	1
Percent Solids	89.4		0.1	0.1	%			04/14/17 09:43	1

Client Sample ID: RC-BA-03
Date Collected: 04/11/17 12:00
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-3
Matrix: Solid
Percent Solids: 85.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	ND		57	23	mg/Kg	☼	04/22/17 11:27	04/23/17 15:30	10
Chromium, trivalent	18		5.9	2.3	mg/Kg	☼		04/23/17 15:30	1
Percent Moisture	14.8		0.1	0.1	%			04/14/17 09:43	1
Percent Solids	85.2		0.1	0.1	%			04/14/17 09:43	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

General Chemistry

Client Sample ID: RC-BA-04
Date Collected: 04/11/17 12:08
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-4
Matrix: Solid
Percent Solids: 95.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	ND		5.1	2.1	mg/Kg	☼	04/22/17 11:27	04/23/17 15:30	1
Chromium, trivalent	14		5.2	2.1	mg/Kg	☼		04/23/17 15:30	1
Percent Moisture	4.5		0.1	0.1	%			04/14/17 09:43	1
Percent Solids	95.5		0.1	0.1	%			04/14/17 09:43	1

Client Sample ID: RC-BA-05
Date Collected: 04/11/17 11:30
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-5
Matrix: Solid
Percent Solids: 79.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	ND		6.2	2.5	mg/Kg	☼	04/22/17 11:27	04/23/17 15:30	1
Chromium, trivalent	16		6.3	2.5	mg/Kg	☼		04/23/17 15:30	1
Percent Moisture	20.6		0.1	0.1	%			04/14/17 09:43	1
Percent Solids	79.4		0.1	0.1	%			04/14/17 09:43	1

Client Sample ID: RC-BA-06
Date Collected: 04/11/17 11:10
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-6
Matrix: Solid
Percent Solids: 81.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	ND		6.1	2.4	mg/Kg	☼	04/22/17 11:27	04/23/17 15:30	1
Chromium, trivalent	17		6.2	2.5	mg/Kg	☼		04/23/17 15:30	1
Percent Moisture	18.9		0.1	0.1	%			04/14/17 09:43	1
Percent Solids	81.1		0.1	0.1	%			04/14/17 09:43	1

Client Sample ID: RC-BA-07
Date Collected: 04/11/17 12:15
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-7
Matrix: Solid
Percent Solids: 73.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	ND		6.7	2.7	mg/Kg	☼	04/22/17 11:27	04/23/17 15:30	1
Chromium, trivalent	23		6.8	2.7	mg/Kg	☼		04/23/17 15:30	1
Percent Moisture	26.7		0.1	0.1	%			04/14/17 09:43	1
Percent Solids	73.3		0.1	0.1	%			04/14/17 09:43	1

Client Sample ID: RC-BA-08
Date Collected: 04/11/17 12:50
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-8
Matrix: Solid
Percent Solids: 87.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	ND		5.7	2.3	mg/Kg	☼	04/22/17 11:27	04/23/17 15:30	1
Chromium, trivalent	12		5.7	2.3	mg/Kg	☼		04/23/17 15:30	1
Percent Moisture	12.1		0.1	0.1	%			04/14/17 09:43	1
Percent Solids	87.9		0.1	0.1	%			04/14/17 09:43	1

Client Sample ID: RC-BA-09
Date Collected: 04/11/17 12:40
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-9
Matrix: Solid
Percent Solids: 82.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	ND		5.9	2.4	mg/Kg	☼	04/22/17 11:27	04/23/17 15:30	1
Chromium, trivalent	13		6.0	2.4	mg/Kg	☼		04/23/17 15:30	1
Percent Moisture	17.2		0.1	0.1	%			04/14/17 09:43	1
Percent Solids	82.8		0.1	0.1	%			04/14/17 09:43	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

General Chemistry

Client Sample ID: RC-BA-10
Date Collected: 04/11/17 12:30
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-10
Matrix: Solid
Percent Solids: 88.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	ND		5.5	2.2	mg/Kg	☼	04/22/17 11:27	04/23/17 15:30	1
Chromium, trivalent	13		5.7	2.3	mg/Kg	☼		04/23/17 15:30	1
Percent Moisture	12.0		0.1	0.1	%			04/14/17 09:43	1
Percent Solids	88.0		0.1	0.1	%			04/14/17 09:43	1

Client Sample ID: RC-BA-DUP01
Date Collected: 04/11/17 10:50
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-11
Matrix: Solid
Percent Solids: 89.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	ND		5.5	2.2	mg/Kg	☼	04/22/17 11:27	04/23/17 15:30	1
Chromium, trivalent	13		5.6	2.2	mg/Kg	☼		04/23/17 15:30	1
Percent Moisture	10.4		0.1	0.1	%			04/14/17 09:43	1
Percent Solids	89.6		0.1	0.1	%			04/14/17 09:43	1

General Chemistry - Soluble

Client Sample ID: RC-BA-01
Date Collected: 04/11/17 10:00
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-1
Matrix: Solid
Percent Solids: 78.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.8	HF	0.1	0.1	SU			04/19/17 10:22	1
Temperature	22.1	HF	1.0	1.0	Degrees C			04/19/17 10:22	1
Electrical Conductivity	11		0.010	0.010	mmhos/cm		04/19/17 09:58	04/20/17 15:00	1

Client Sample ID: RC-BA-02
Date Collected: 04/11/17 10:45
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-2
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			04/19/17 10:22	1
Temperature	22.1	HF	1.0	1.0	Degrees C			04/19/17 10:22	1
Electrical Conductivity	0.57		0.010	0.010	mmhos/cm		04/19/17 09:58	04/20/17 15:00	1

Client Sample ID: RC-BA-03
Date Collected: 04/11/17 12:00
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-3
Matrix: Solid
Percent Solids: 85.2

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			04/19/17 10:22	1
Temperature	22.3	HF	1.0	1.0	Degrees C			04/19/17 10:22	1
Electrical Conductivity	0.57		0.010	0.010	mmhos/cm		04/19/17 09:58	04/20/17 15:00	1

Client Sample ID: RC-BA-04
Date Collected: 04/11/17 12:08
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-4
Matrix: Solid
Percent Solids: 95.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	8.7	HF	0.1	0.1	SU			04/19/17 10:22	1
Temperature	22.4	HF	1.0	1.0	Degrees C			04/19/17 10:22	1
Electrical Conductivity	1.8		0.010	0.010	mmhos/cm		04/19/17 09:58	04/20/17 15:00	1

TestAmerica Denver

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

General Chemistry - Soluble

Client Sample ID: RC-BA-05
Date Collected: 04/11/17 11:30
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-5
Matrix: Solid
Percent Solids: 79.4

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	—		04/19/17 10:22	1
Temperature	22.4	HF	1.0	1.0	Degrees C			04/19/17 10:22	1
Electrical Conductivity	0.68		0.010	0.010	mmhos/cm		04/19/17 09:58	04/20/17 15:00	1

Client Sample ID: RC-BA-06
Date Collected: 04/11/17 11:10
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-6
Matrix: Solid
Percent Solids: 81.1

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	—		04/19/17 10:22	1
Temperature	22.4	HF	1.0	1.0	Degrees C			04/19/17 10:22	1
Electrical Conductivity	0.61		0.010	0.010	mmhos/cm		04/19/17 09:58	04/20/17 15:00	1

Client Sample ID: RC-BA-07
Date Collected: 04/11/17 12:15
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-7
Matrix: Solid
Percent Solids: 73.3

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	—		04/19/17 10:22	1
Temperature	22.2	HF	1.0	1.0	Degrees C			04/19/17 10:22	1
Electrical Conductivity	0.72		0.010	0.010	mmhos/cm		04/19/17 09:58	04/20/17 15:00	1

Client Sample ID: RC-BA-08
Date Collected: 04/11/17 12:50
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-8
Matrix: Solid
Percent Solids: 87.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	8.8	HF	0.1	0.1	SU	—		04/19/17 10:22	1
Temperature	22.3	HF	1.0	1.0	Degrees C			04/19/17 10:22	1
Electrical Conductivity	1.7		0.010	0.010	mmhos/cm		04/19/17 09:58	04/20/17 15:00	1

Client Sample ID: RC-BA-09
Date Collected: 04/11/17 12:40
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-9
Matrix: Solid
Percent Solids: 82.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	9.3	HF	0.1	0.1	SU	—		04/19/17 10:22	1
Temperature	22.0	HF	1.0	1.0	Degrees C			04/19/17 10:22	1
Electrical Conductivity	1.2		0.010	0.010	mmhos/cm		04/19/17 09:58	04/20/17 15:00	1

Client Sample ID: RC-BA-10
Date Collected: 04/11/17 12:30
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-10
Matrix: Solid
Percent Solids: 88.0

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	—		04/19/17 10:22	1
Temperature	22.1	HF	1.0	1.0	Degrees C			04/19/17 10:22	1
Electrical Conductivity	5.2		0.010	0.010	mmhos/cm		04/19/17 09:58	04/20/17 15:00	1

Client Sample ID: RC-BA-DUP01
Date Collected: 04/11/17 10:50
Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-11
Matrix: Solid
Percent Solids: 89.6

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	—		04/19/17 10:22	1
Temperature	22.4	HF	1.0	1.0	Degrees C			04/19/17 10:22	1
Electrical Conductivity	0.59		0.010	0.010	mmhos/cm		04/19/17 09:58	04/20/17 15:00	1

TestAmerica Denver

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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 (58-140)	TOL (80-126)	BFB (76-127)	DBFM (75-121)
280-95791-1	RC-BA-01	136	104	108	116
280-95791-1 MS	RC-BA-01	128	100	100	110
280-95791-1 MSD	RC-BA-01	118	93	89	106
280-95791-2	RC-BA-02	143 X	116	130 X	127 X
280-95791-3	RC-BA-03	129	104	107	114
280-95791-4	RC-BA-04	132	101	102	116
280-95791-5	RC-BA-05	154 X	116	121	133 X
280-95791-6	RC-BA-06	128	97	99	112
280-95791-7	RC-BA-07	133	101	107	117
280-95791-8	RC-BA-08	136	105	112	117
280-95791-9	RC-BA-09	133	101	106	119
280-95791-10	RC-BA-10	132	104	104	116
280-95791-11	RC-BA-DUP01	136	105	121	118
LCS 280-369710/2-A	Lab Control Sample	105	93	89	101
MB 280-369710/1-A	Method Blank	109	87	90	105

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)
280-95791-1	RC-BA-01	74	74	72
280-95791-1 MS	RC-BA-01	84	88	79
280-95791-1 MSD	RC-BA-01	83	88	82
280-95791-2	RC-BA-02	79 D	102 D	87 D
280-95791-3	RC-BA-03	79	87	78
280-95791-4	RC-BA-04	75	76	76
280-95791-5	RC-BA-05	80	92	80
280-95791-6	RC-BA-06	81	89	81
280-95791-7	RC-BA-07	84	132 X	82
280-95791-8	RC-BA-08	78	89	80
280-95791-9	RC-BA-09	83	93	83
280-95791-10	RC-BA-10	72	84	71
280-95791-11	RC-BA-DUP01	74 D	104 D	90 D
LCS 280-369761/2-A	Lab Control Sample	67	66	62
MB 280-369761/1-A	Method Blank	70	69	69

Surrogate Legend

FBP = 2-Fluorobiphenyl

NBZ = Nitrobenzene-d5

TPH = Terphenyl-d14

TestAmerica Denver

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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)
280-95791-1	RC-BA-01	82
280-95791-1 MS	RC-BA-01	80
280-95791-1 MSD	RC-BA-01	92
280-95791-2	RC-BA-02	91
280-95791-3	RC-BA-03	85
280-95791-4	RC-BA-04	90
280-95791-5	RC-BA-05	74 X
280-95791-6	RC-BA-06	82
280-95791-7	RC-BA-07	68 X
280-95791-8	RC-BA-08	94
280-95791-9	RC-BA-09	87
280-95791-10	RC-BA-10	98
280-95791-11	RC-BA-DUP01	78
LCS 280-369828/2-A	Lab Control Sample	90
MB 280-369828/1-A	Method 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)
280-95791-1	RC-BA-01	90
280-95791-1 MS	RC-BA-01	88
280-95791-1 MSD	RC-BA-01	71
280-95791-2	RC-BA-02	107
280-95791-3	RC-BA-03	115
280-95791-4	RC-BA-04	92
280-95791-5	RC-BA-05	93
280-95791-6	RC-BA-06	79
280-95791-7	RC-BA-07	38 X
280-95791-8	RC-BA-08	98
280-95791-9	RC-BA-09	68
280-95791-10	RC-BA-10	105
280-95791-11	RC-BA-DUP01	133 X
LCS 280-369203/2-A	Lab Control Sample	121 X
LCS 280-369968/2-A	Lab Control Sample	122 X
MB 280-369203/1-A	Method Blank	113
MB 280-369968/1-A	Method Blank	117 X
Surrogate Legend		
OTPH = o-Terphenyl (Surr)		

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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

Lab Sample ID: MB 280-369710/1-A

Matrix: Solid

Analysis Batch: 369704

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 369710

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0050	0.00047	mg/Kg		04/17/17 15:00	04/17/17 17:30	1
Ethylbenzene	ND		0.0050	0.00067	mg/Kg		04/17/17 15:00	04/17/17 17:30	1
Toluene	ND		0.0050	0.00069	mg/Kg		04/17/17 15:00	04/17/17 17:30	1
m-Xylene & p-Xylene	ND		0.0025	0.0010	mg/Kg		04/17/17 15:00	04/17/17 17:30	1
o-Xylene	ND		0.0025	0.00061	mg/Kg		04/17/17 15:00	04/17/17 17:30	1
Xylenes, Total	ND		0.0050	0.00061	mg/Kg		04/17/17 15:00	04/17/17 17:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	136		58 - 143	3401/01/ 15733	3401/01/ 1/7.3	1
Toluene-d8 (Surr)	8/		83 - 12B	3401/01/ 15733	3401/01/ 1/7.3	1
4-mrofl obduorozenXene (Surr)	63		/ B - 12/	3401/01/ 15733	3401/01/ 1/7.3	1
Dizrofl obduorof ethane (Surr)	135		/ 5 - 121	3401/01/ 15733	3401/01/ 1/7.3	1

Lab Sample ID: LCS 280-369710/2-A

Matrix: Solid

Analysis Batch: 369704

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 369710

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzene	0.0500	0.0507		mg/Kg		101	75 - 135
Ethylbenzene	0.0500	0.0456		mg/Kg		91	73 - 125
Toluene	0.0500	0.0517		mg/Kg		103	77 - 122
m-Xylene & p-Xylene	0.0500	0.0460		mg/Kg		92	77 - 135
o-Xylene	0.0500	0.0478		mg/Kg		96	75 - 135
Xylenes, Total	0.100	0.0938		mg/Kg		94	76 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	135		58 - 143
Toluene-d8 (Surr)	6/		83 - 12B
4-mrofl obduorozenXene (Surr)	86		/ B - 12/
Dizrofl obduorof ethane (Surr)	131		/ 5 - 121

Lab Sample ID: 280-95791-1 MS

Matrix: Solid

Analysis Batch: 369704

Client Sample ID: RC-BA-01

Prep Type: Total/NA

Prep Batch: 369710

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Benzene	0.0025	J F1 F2	0.0539	0.0274	F1	mg/Kg	☼	46	75 - 135
Ethylbenzene	ND	F1 F2	0.0539	0.0209	F1	mg/Kg	☼	39	73 - 125
Toluene	0.0031	J F1 F2	0.0539	0.0274	F1	mg/Kg	☼	45	77 - 122
m-Xylene & p-Xylene	ND	F1 F2	0.0539	0.0221	F1	mg/Kg	☼	41	77 - 135
o-Xylene	ND	F1 F2	0.0539	0.0223	F1	mg/Kg	☼	41	75 - 135
Xylenes, Total	ND	F1 F2	0.108	0.0444	F1	mg/Kg	☼	41	76 - 135

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	128		58 - 143
Toluene-d8 (Surr)	133		83 - 12B
4-mrofl obduorozenXene (Surr)	133		/ B - 12/

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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

Lab Sample ID: 280-95791-1 MS

Matrix: Solid

Analysis Batch: 369704

Client Sample ID: RC-BA-01

Prep Type: Total/NA

Prep Batch: 369710

Surrogate	MS %Recovery	MS Qualifier	Limits
Dizrofluoethane (Surr)	113		/ 5 - 121

Lab Sample ID: 280-95791-1 MSD

Matrix: Solid

Analysis Batch: 369704

Client Sample ID: RC-BA-01

Prep Type: Total/NA

Prep Batch: 369710

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0025	J F1 F2	0.0786	0.0886	F2	mg/Kg	☼	109	75 - 135	106	20
Ethylbenzene	ND	F1 F2	0.0786	0.0686	F2	mg/Kg	☼	87	73 - 125	107	20
Toluene	0.0031	J F1 F2	0.0786	0.0878	F2	mg/Kg	☼	108	77 - 122	105	20
m-Xylene & p-Xylene	ND	F1 F2	0.0786	0.0710	F2	mg/Kg	☼	90	77 - 135	105	20
o-Xylene	ND	F1 F2	0.0786	0.0687	F2	mg/Kg	☼	87	75 - 135	102	20
Xylenes, Total	ND	F1 F2	0.157	0.140	F2	mg/Kg	☼	89	76 - 135	104	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	118		58 - 143
Toluene-d8 (Surr)	6:		83 - 12B
4-mrofluoroxene (Surr)	86		/ B - 12/
Dizrofluoethane (Surr)	13B		/ 5 - 121

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

Lab Sample ID: MB 280-369761/1-A

Matrix: Solid

Analysis Batch: 370634

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 369761

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0050	0.00016	mg/Kg		04/18/17 09:47	04/24/17 14:26	1
Anthracene	ND		0.0050	0.00072	mg/Kg		04/18/17 09:47	04/24/17 14:26	1
Benzo[a]anthracene	ND		0.0050	0.00090	mg/Kg		04/18/17 09:47	04/24/17 14:26	1
Benzo[a]pyrene	ND		0.0050	0.00074	mg/Kg		04/18/17 09:47	04/24/17 14:26	1
Benzo[b]fluoranthene	ND		0.0050	0.0012	mg/Kg		04/18/17 09:47	04/24/17 14:26	1
Benzo[k]fluoranthene	ND		0.0050	0.0010	mg/Kg		04/18/17 09:47	04/24/17 14:26	1
Chrysene	ND		0.0050	0.0010	mg/Kg		04/18/17 09:47	04/24/17 14:26	1
Dibenz(a,h)anthracene	ND		0.0050	0.0013	mg/Kg		04/18/17 09:47	04/24/17 14:26	1
Fluoranthene	ND		0.0050	0.0010	mg/Kg		04/18/17 09:47	04/24/17 14:26	1
Fluorene	ND		0.0050	0.00047	mg/Kg		04/18/17 09:47	04/24/17 14:26	1
Indeno[1,2,3-cd]pyrene	ND		0.0050	0.0011	mg/Kg		04/18/17 09:47	04/24/17 14:26	1
Naphthalene	ND		0.0050	0.00033	mg/Kg		04/18/17 09:47	04/24/17 14:26	1
Pyrene	ND		0.0050	0.0011	mg/Kg		04/18/17 09:47	04/24/17 14:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-9luoroziFhenpl	/ 3		: 6 - 123	3401801/ 3674/	3402401/ 1472B	1
yitrozenXene-d5	B6		42 - 123	3401801/ 3674/	3402401/ 1472B	1
TerFhenpl-d14	B6		: 5 - 124	3401801/ 3674/	3402401/ 1472B	1

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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

Lab Sample ID: LCS 280-369761/2-A

Matrix: Solid

Analysis Batch: 370634

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 369761

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	0.0300	0.0208		mg/Kg		69	35 - 120
Anthracene	0.0300	0.0208		mg/Kg		69	43 - 120
Benzo[a]anthracene	0.0300	0.0209		mg/Kg		70	36 - 120
Benzo[a]pyrene	0.0300	0.0176		mg/Kg		59	20 - 120
Benzo[b]fluoranthene	0.0300	0.0190		mg/Kg		63	37 - 120
Benzo[k]fluoranthene	0.0300	0.0191		mg/Kg		64	46 - 120
Chrysene	0.0300	0.0230		mg/Kg		77	34 - 120
Dibenz(a,h)anthracene	0.0300	0.0189		mg/Kg		63	20 - 120
Fluoranthene	0.0300	0.0200		mg/Kg		67	45 - 120
Fluorene	0.0300	0.0209		mg/Kg		70	44 - 120
Indeno[1,2,3-cd]pyrene	0.0300	0.0217		mg/Kg		72	20 - 127
Naphthalene	0.0300	0.0221		mg/Kg		74	44 - 120
Pyrene	0.0300	0.0206		mg/Kg		69	43 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-9luoroziFhenpl	B/		: 6 - 123
y itrozeXene-d5	BB		42 - 123
TerFhenpl-d14	B2		: 5 - 124

Lab Sample ID: 280-95791-1 MS

Matrix: Solid

Analysis Batch: 370634

Client Sample ID: RC-BA-01

Prep Type: Total/NA

Prep Batch: 369761

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	0.0013	J	0.0379	0.0349		mg/Kg	☼	89	35 - 120
Anthracene	0.0015	J	0.0379	0.0355		mg/Kg	☼	90	43 - 120
Benzo[a]anthracene	0.0011	J	0.0379	0.0367		mg/Kg	☼	97	36 - 120
Benzo[a]pyrene	ND		0.0379	0.0403		mg/Kg	☼	106	20 - 120
Benzo[b]fluoranthene	0.0018	J	0.0379	0.0388		mg/Kg	☼	97	37 - 120
Benzo[k]fluoranthene	ND		0.0379	0.0367		mg/Kg	☼	97	46 - 120
Chrysene	0.0027	J	0.0379	0.0403		mg/Kg	☼	99	34 - 120
Dibenz(a,h)anthracene	ND		0.0379	0.0383		mg/Kg	☼	101	20 - 120
Fluoranthene	0.0052	J	0.0379	0.0342		mg/Kg	☼	77	45 - 120
Fluorene	0.0013	J	0.0379	0.0339		mg/Kg	☼	86	44 - 120
Indeno[1,2,3-cd]pyrene	ND		0.0379	0.0437		mg/Kg	☼	115	20 - 127
Naphthalene	0.0024	J	0.0379	0.0357		mg/Kg	☼	88	44 - 120
Pyrene	0.0038	J	0.0379	0.0350		mg/Kg	☼	82	43 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
2-9luoroziFhenpl	84		: 6 - 123
y itrozeXene-d5	88		42 - 123
TerFhenpl-d14	/ 6		: 5 - 124

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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

Lab Sample ID: 280-95791-1 MSD

Matrix: Solid

Analysis Batch: 370634

Client Sample ID: RC-BA-01

Prep Type: Total/NA

Prep Batch: 369761

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	0.0013	J	0.0374	0.0343		mg/Kg	☼	88	35 - 120	2	50
Anthracene	0.0015	J	0.0374	0.0355		mg/Kg	☼	91	43 - 120	0	50
Benzo[a]anthracene	0.0011	J	0.0374	0.0368		mg/Kg	☼	98	36 - 120	0	40
Benzo[a]pyrene	ND		0.0374	0.0372		mg/Kg	☼	100	20 - 120	8	30
Benzo[b]fluoranthene	0.0018	J	0.0374	0.0392		mg/Kg	☼	100	37 - 120	1	28
Benzo[k]fluoranthene	ND		0.0374	0.0366		mg/Kg	☼	98	46 - 120	0	28
Chrysene	0.0027	J	0.0374	0.0400		mg/Kg	☼	100	34 - 120	1	41
Dibenz(a,h)anthracene	ND		0.0374	0.0379		mg/Kg	☼	101	20 - 120	1	25
Fluoranthene	0.0052	J	0.0374	0.0343		mg/Kg	☼	78	45 - 120	0	30
Fluorene	0.0013	J	0.0374	0.0337		mg/Kg	☼	87	44 - 120	0	50
Indeno[1,2,3-cd]pyrene	ND		0.0374	0.0437		mg/Kg	☼	117	20 - 127	0	50
Naphthalene	0.0024	J	0.0374	0.0362		mg/Kg	☼	90	44 - 120	1	50
Pyrene	0.0038	J	0.0374	0.0345		mg/Kg	☼	82	43 - 120	1	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-9luoroziFhenpl	8:		: 6 - 123
y itrozeXene-d5	88		42 - 123
TerFhenpl-d14	82		: 5 - 124

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

Lab Sample ID: MB 280-369828/1-A

Matrix: Solid

Analysis Batch: 369840

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 369828

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.2	0.33	mg/Kg		04/18/17 09:34	04/18/17 18:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Tribuorotoluene	8B		// - 12:	3401801/ 367.4	3401801/ 18711	1

Lab Sample ID: LCS 280-369828/2-A

Matrix: Solid

Analysis Batch: 369840

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 369828

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
GRO (C6-C10)	5.50	6.61		mg/Kg		120	85 - 153

Surrogate	LCS %Recovery	LCS Qualifier	Limits
a,a,a-Tribuorotoluene	63		// - 12:

Lab Sample ID: 280-95791-1 MS

Matrix: Solid

Analysis Batch: 369840

Client Sample ID: RC-BA-01

Prep Type: Total/NA

Prep Batch: 369828

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
GRO (C6-C10)	ND		7.50	7.98		mg/Kg	☼	106	85 - 153

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Surrogate	MS %Recovery	MS Qualifier	Limits
a,a,a-Tribuorotoluene	83		// - 12:

Lab Sample ID: 280-95791-1 MSD

Matrix: Solid

Analysis Batch: 369840

Client Sample ID: RC-BA-01

Prep Type: Total/NA

Prep Batch: 369828

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C6-C10)	ND		7.40	8.75		mg/Kg	☒	118	85 - 153	9	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
a,a,a-Tribuorotoluene	62		// - 12:

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

Lab Sample ID: MB 280-369203/1-A

Matrix: Solid

Analysis Batch: 370413

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 369203

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		4.0	0.68	mg/Kg		04/13/17 08:29	04/22/17 05:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-TerFhenpl (Surr)	11:		46 - 115	3401: 01/ 38726	340201/ 3573:	1

Lab Sample ID: LCS 280-369203/2-A

Matrix: Solid

Analysis Batch: 370413

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 369203

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28)	66.7	62.1		mg/Kg		93	53 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-TerFhenpl (Surr)	121	N	46 - 115

Lab Sample ID: 280-95791-1 MS

Matrix: Solid

Analysis Batch: 370413

Client Sample ID: RC-BA-01

Prep Type: Total/NA

Prep Batch: 369203

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28)	2.9	J	82.6	75.1		mg/Kg	☒	87	56 - 115

Surrogate	MS %Recovery	MS Qualifier	Limits
o-TerFhenpl (Surr)	88		46 - 115

Lab Sample ID: 280-95791-1 MSD

Matrix: Solid

Analysis Batch: 370413

Client Sample ID: RC-BA-01

Prep Type: Total/NA

Prep Batch: 369203

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28)	2.9	J	83.7	70.1		mg/Kg	☒	80	56 - 115	7	23

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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

Lab Sample ID: 280-95791-1 MSD

Matrix: Solid

Analysis Batch: 370413

Client Sample ID: RC-BA-01

Prep Type: Total/NA

Prep Batch: 369203

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o-TerFhenpl (Surr)	71		46 - 115

Lab Sample ID: MB 280-369968/1-A

Matrix: Solid

Analysis Batch: 370641

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 369968

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		4.0	0.68	mg/Kg	-	04/19/17 09:05	04/24/17 21:51	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-TerFhenpl (Surr)	11/	N	46 - 115				3401601/ 36735	3402401/ 21751	1

Lab Sample ID: LCS 280-369968/2-A

Matrix: Solid

Analysis Batch: 370641

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 369968

			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
DRO (C10-C28)			66.7	69.5		mg/Kg	-	104	53 - 115		
Surrogate	LCS	LCS									
	%Recovery	Qualifier	Limits								
o-TerFhenpl (Surr)	122	N	46 - 115								

Method: 20B - Sodium Adsorption Ratio

Lab Sample ID: MB 280-369086/1-A

Matrix: Solid

Analysis Batch: 370249

Client Sample ID: Method Blank

Prep Type: Soluble

Prep Batch: 369086

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	ND		10	10	mg/Kg		04/12/17 12:15	04/20/17 01:55	10
Ca	ND		2.0	2.0	mg/Kg		04/12/17 12:15	04/20/17 01:55	10
Mg	ND		2.0	2.0	mg/Kg		04/12/17 12:15	04/20/17 01:55	10
Sodium Adsorption Ratio	ND		1.2	1.2	No Unit		04/12/17 12:15	04/20/17 01:55	10

Lab Sample ID: 280-95791-1 DU

Matrix: Solid

Analysis Batch: 370249

Client Sample ID: RC-BA-01

Prep Type: Soluble

Prep Batch: 369086

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Na	2900		2740		mg/Kg		5	20
Ca	1200		960		mg/Kg		20	20
Mg	330		323		mg/Kg		1	20
Sodium Adsorption Ratio	19		19.5		No Unit		2	20

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 280-369080/1-A

Matrix: Solid

Analysis Batch: 369552

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 369080

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		1.0	0.10	mg/Kg		04/13/17 14:35	04/16/17 06:18	1
Cadmium	ND		0.50	0.041	mg/Kg		04/13/17 14:35	04/16/17 06:18	1
Chromium	ND		1.5	0.058	mg/Kg		04/13/17 14:35	04/16/17 06:18	1
Lead	ND		0.90	0.31	mg/Kg		04/13/17 14:35	04/16/17 06:18	1
Boron	ND		10	0.98	mg/Kg		04/13/17 14:35	04/16/17 06:18	1
Selenium	ND		1.5	0.86	mg/Kg		04/13/17 14:35	04/16/17 06:18	1
Silver	ND		1.0	0.16	mg/Kg		04/13/17 14:35	04/16/17 06:18	1
Calcium	23.4	J	50	14	mg/Kg		04/13/17 14:35	04/16/17 06:18	1
Magnesium	6.98	J	20	3.7	mg/Kg		04/13/17 14:35	04/16/17 06:18	1
Nickel	ND		4.0	0.13	mg/Kg		04/13/17 14:35	04/16/17 06:18	1
Sodium	ND		500	59	mg/Kg		04/13/17 14:35	04/16/17 06:18	1
Zinc	ND		3.0	0.40	mg/Kg		04/13/17 14:35	04/16/17 06:18	1

Lab Sample ID: MB 280-369080/1-A

Matrix: Solid

Analysis Batch: 369613

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 369080

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	0.371	J	2.0	0.22	mg/Kg		04/13/17 14:35	04/16/17 18:29	1

Lab Sample ID: LCS 280-369080/2-A

Matrix: Solid

Analysis Batch: 369552

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 369080

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Barium	200	200		mg/Kg		100	87 - 112
Cadmium	10.0	10.6		mg/Kg		106	87 - 110
Chromium	20.0	19.9		mg/Kg		100	84 - 114
Lead	50.0	50.0		mg/Kg		100	86 - 110
Boron	100	99.8		mg/Kg		100	80 - 120
Selenium	200	210		mg/Kg		105	83 - 110
Silver	5.00	5.38		mg/Kg		108	87 - 114
Nickel	50.0	49.8		mg/Kg		100	87 - 110
Zinc	50.0	52.4		mg/Kg		105	76 - 114

Lab Sample ID: LCS 280-369080/2-A

Matrix: Solid

Analysis Batch: 369613

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 369080

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Copper	25.0	26.1		mg/Kg		104	88 - 110

Lab Sample ID: 280-95791-1 MS

Matrix: Solid

Analysis Batch: 369552

Client Sample ID: RC-BA-01

Prep Type: Total/NA

Prep Batch: 369080

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Barium	440	F1	182	462	F1	mg/Kg	☼	11	52 - 159
Cadmium	0.35	J	9.10	8.57		mg/Kg	☼	90	40 - 130

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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

Lab Sample ID: 280-95791-1 MS

Matrix: Solid

Analysis Batch: 369552

Client Sample ID: RC-BA-01

Prep Type: Total/NA

Prep Batch: 369080

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Chromium	16		18.2	42.5		mg/Kg	☼	145	70 - 200
Lead	18		45.5	52.4		mg/Kg	☼	75	70 - 200
Boron	15		91.0	100		mg/Kg	☼	94	80 - 120
Selenium	ND		182	161		mg/Kg	☼	88	76 - 104
Silver	ND		4.55	4.53		mg/Kg	☼	100	75 - 141
Nickel	17		45.5	53.2		mg/Kg	☼	79	61 - 126
Zinc	76		45.5	118		mg/Kg	☼	93	70 - 200

Lab Sample ID: 280-95791-1 MS

Matrix: Solid

Analysis Batch: 369613

Client Sample ID: RC-BA-01

Prep Type: Total/NA

Prep Batch: 369080

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Copper	16	B	22.7	36.1		mg/Kg	☼	89	37 - 187

Lab Sample ID: 280-95791-1 MSD

Matrix: Solid

Analysis Batch: 369552

Client Sample ID: RC-BA-01

Prep Type: Total/NA

Prep Batch: 369080

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Barium	440	F1	197	488	F1	mg/Kg	☼	23	52 - 159	6	20
Cadmium	0.35	J	9.85	9.61		mg/Kg	☼	94	40 - 130	11	20
Chromium	16		19.7	45.2		mg/Kg	☼	148	70 - 200	6	20
Lead	18		49.3	57.6		mg/Kg	☼	80	70 - 200	9	20
Boron	15		98.5	109		mg/Kg	☼	96	80 - 120	9	20
Selenium	ND		197	181		mg/Kg	☼	92	76 - 104	12	20
Silver	ND		4.93	5.02		mg/Kg	☼	102	75 - 141	10	20
Nickel	17		49.3	58.7		mg/Kg	☼	84	61 - 126	10	20
Zinc	76		49.3	126		mg/Kg	☼	101	70 - 200	6	20

Lab Sample ID: 280-95791-1 MSD

Matrix: Solid

Analysis Batch: 369613

Client Sample ID: RC-BA-01

Prep Type: Total/NA

Prep Batch: 369080

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Copper	16	B	24.6	39.1		mg/Kg	☼	94	37 - 187	8	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 280-369081/1-A

Matrix: Solid

Analysis Batch: 369598

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 369081

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.60	0.051	mg/Kg		04/13/17 14:35	04/14/17 15:35	1

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-369081/2-A
Matrix: Solid
Analysis Batch: 369598

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 369081

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	20.0	17.5		mg/Kg		87	83 - 111

Lab Sample ID: 280-95791-1 MS
Matrix: Solid
Analysis Batch: 369598

Client Sample ID: RC-BA-01
Prep Type: Total/NA
Prep Batch: 369081

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	6.9		17.6	22.2		mg/Kg	✱	87	83 - 111

Lab Sample ID: 280-95791-1 MSD
Matrix: Solid
Analysis Batch: 369598

Client Sample ID: RC-BA-01
Prep Type: Total/NA
Prep Batch: 369081

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	6.9		19.3	23.4		mg/Kg	✱	86	83 - 111	5	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 280-369993/1-A
Matrix: Solid
Analysis Batch: 370169

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 369993

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.017	0.0055	mg/Kg		04/19/17 12:39	04/19/17 21:17	1

Lab Sample ID: LCS 280-369993/2-A
Matrix: Solid
Analysis Batch: 370169

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 369993

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.417	0.428		mg/Kg		103	87 - 111

Lab Sample ID: 280-95791-1 MS
Matrix: Solid
Analysis Batch: 370169

Client Sample ID: RC-BA-01
Prep Type: Total/NA
Prep Batch: 369993

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.024		0.587	0.621		mg/Kg	✱	102	87 - 111

Lab Sample ID: 280-95791-1 MSD
Matrix: Solid
Analysis Batch: 370169

Client Sample ID: RC-BA-01
Prep Type: Total/NA
Prep Batch: 369993

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.024		0.622	0.650		mg/Kg	✱	101	87 - 111	5	20

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 490-424248/1-A
Matrix: Solid
Analysis Batch: 424500

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 424248

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hex	ND		4.9	1.9	mg/Kg		04/22/17 11:27	04/23/17 15:30	1

Lab Sample ID: LCS 490-424248/3-A
Matrix: Solid
Analysis Batch: 424500

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 424248

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hex	63.6	73.1		mg/Kg		115	80 - 120

Lab Sample ID: LCSS 490-424248/2-A
Matrix: Solid
Analysis Batch: 424500

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 424248

Analyte	Spike Added	LCSS Result	LCSS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hex	39.0	44.0		mg/Kg		113	80 - 120

Lab Sample ID: 280-95791-1 MSI
Matrix: Solid
Analysis Batch: 424500

Client Sample ID: RC-BA-01
Prep Type: Total/NA
Prep Batch: 424248

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hex	ND		82.1	85.3		mg/Kg	✱	104	75 - 125

Lab Sample ID: 280-95791-1 MSS
Matrix: Solid
Analysis Batch: 424500

Client Sample ID: RC-BA-01
Prep Type: Total/NA
Prep Batch: 424248

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hex	ND		49.5	48.5		mg/Kg	✱	98	75 - 125

Lab Sample ID: 280-95791-1 DU
Matrix: Solid
Analysis Batch: 424500

Client Sample ID: RC-BA-01
Prep Type: Total/NA
Prep Batch: 424248

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Chromium, hex	ND		ND		mg/Kg	✱	NC	20

Method: 9045D - pH

Lab Sample ID: LCS 280-369457/22-A
Matrix: Solid
Analysis Batch: 370033

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

TestAmerica Denver

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Method: 9050A - Specific Conductance

Lab Sample ID: 280-95791-1 DU

Matrix: Solid

Analysis Batch: 423759

Client Sample ID: RC-BA-01

Prep Type: Soluble

Prep Batch: 422713

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Electrical Conductivity	11		10.9		mmhos/cm	—	0.2	10

Method: Moisture - Percent Moisture

Lab Sample ID: 280-95791-9 DU

Matrix: Solid

Analysis Batch: 369406

Client Sample ID: RC-BA-09

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	17.2		17.6		%	—	2	20
Percent Solids	82.8		82.4		%		0.5	20

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

GC/MS VOA

Analysis Batch: 369704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-1	RC-BA-01	Total/NA	Solid	8260B	369710
280-95791-2	RC-BA-02	Total/NA	Solid	8260B	369710
280-95791-3	RC-BA-03	Total/NA	Solid	8260B	369710
280-95791-4	RC-BA-04	Total/NA	Solid	8260B	369710
280-95791-5	RC-BA-05	Total/NA	Solid	8260B	369710
280-95791-6	RC-BA-06	Total/NA	Solid	8260B	369710
280-95791-7	RC-BA-07	Total/NA	Solid	8260B	369710
280-95791-8	RC-BA-08	Total/NA	Solid	8260B	369710
280-95791-9	RC-BA-09	Total/NA	Solid	8260B	369710
280-95791-10	RC-BA-10	Total/NA	Solid	8260B	369710
280-95791-11	RC-BA-DUP01	Total/NA	Solid	8260B	369710
MB 280-369710/1-A	Method Blank	Total/NA	Solid	8260B	369710
LCS 280-369710/2-A	Lab Control Sample	Total/NA	Solid	8260B	369710
280-95791-1 MS	RC-BA-01	Total/NA	Solid	8260B	369710
280-95791-1 MSD	RC-BA-01	Total/NA	Solid	8260B	369710

Prep Batch: 369710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-1	RC-BA-01	Total/NA	Solid	5035	
280-95791-2	RC-BA-02	Total/NA	Solid	5035	
280-95791-3	RC-BA-03	Total/NA	Solid	5035	
280-95791-4	RC-BA-04	Total/NA	Solid	5035	
280-95791-5	RC-BA-05	Total/NA	Solid	5035	
280-95791-6	RC-BA-06	Total/NA	Solid	5035	
280-95791-7	RC-BA-07	Total/NA	Solid	5035	
280-95791-8	RC-BA-08	Total/NA	Solid	5035	
280-95791-9	RC-BA-09	Total/NA	Solid	5035	
280-95791-10	RC-BA-10	Total/NA	Solid	5035	
280-95791-11	RC-BA-DUP01	Total/NA	Solid	5035	
MB 280-369710/1-A	Method Blank	Total/NA	Solid	5035	
LCS 280-369710/2-A	Lab Control Sample	Total/NA	Solid	5035	
280-95791-1 MS	RC-BA-01	Total/NA	Solid	5035	
280-95791-1 MSD	RC-BA-01	Total/NA	Solid	5035	

GC/MS Semi VOA

Prep Batch: 369761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-1	RC-BA-01	Total/NA	Solid	3546	
280-95791-2	RC-BA-02	Total/NA	Solid	3546	
280-95791-3	RC-BA-03	Total/NA	Solid	3546	
280-95791-4	RC-BA-04	Total/NA	Solid	3546	
280-95791-5	RC-BA-05	Total/NA	Solid	3546	
280-95791-6	RC-BA-06	Total/NA	Solid	3546	
280-95791-7	RC-BA-07	Total/NA	Solid	3546	
280-95791-8	RC-BA-08	Total/NA	Solid	3546	
280-95791-9	RC-BA-09	Total/NA	Solid	3546	
280-95791-10	RC-BA-10	Total/NA	Solid	3546	
280-95791-11	RC-BA-DUP01	Total/NA	Solid	3546	
MB 280-369761/1-A	Method Blank	Total/NA	Solid	3546	

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

GC/MS Semi VOA (Continued)

Prep Batch: 369761 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-369761/2-A	Lab Control Sample	Total/NA	Solid	3546	
280-95791-1 MS	RC-BA-01	Total/NA	Solid	3546	
280-95791-1 MSD	RC-BA-01	Total/NA	Solid	3546	

Analysis Batch: 370634

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-1	RC-BA-01	Total/NA	Solid	8270D SIM	369761
280-95791-2	RC-BA-02	Total/NA	Solid	8270D SIM	369761
280-95791-3	RC-BA-03	Total/NA	Solid	8270D SIM	369761
280-95791-4	RC-BA-04	Total/NA	Solid	8270D SIM	369761
280-95791-5	RC-BA-05	Total/NA	Solid	8270D SIM	369761
280-95791-6	RC-BA-06	Total/NA	Solid	8270D SIM	369761
280-95791-7	RC-BA-07	Total/NA	Solid	8270D SIM	369761
280-95791-8	RC-BA-08	Total/NA	Solid	8270D SIM	369761
280-95791-9	RC-BA-09	Total/NA	Solid	8270D SIM	369761
280-95791-10	RC-BA-10	Total/NA	Solid	8270D SIM	369761
280-95791-11	RC-BA-DUP01	Total/NA	Solid	8270D SIM	369761
MB 280-369761/1-A	Method Blank	Total/NA	Solid	8270D SIM	369761
LCS 280-369761/2-A	Lab Control Sample	Total/NA	Solid	8270D SIM	369761
280-95791-1 MS	RC-BA-01	Total/NA	Solid	8270D SIM	369761
280-95791-1 MSD	RC-BA-01	Total/NA	Solid	8270D SIM	369761

GC VOA

Prep Batch: 369828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-1	RC-BA-01	Total/NA	Solid	5035	
280-95791-2	RC-BA-02	Total/NA	Solid	5035	
280-95791-3	RC-BA-03	Total/NA	Solid	5035	
280-95791-4	RC-BA-04	Total/NA	Solid	5035	
280-95791-5	RC-BA-05	Total/NA	Solid	5035	
280-95791-6	RC-BA-06	Total/NA	Solid	5035	
280-95791-7	RC-BA-07	Total/NA	Solid	5035	
280-95791-8	RC-BA-08	Total/NA	Solid	5035	
280-95791-9	RC-BA-09	Total/NA	Solid	5035	
280-95791-10	RC-BA-10	Total/NA	Solid	5035	
280-95791-11	RC-BA-DUP01	Total/NA	Solid	5035	
MB 280-369828/1-A	Method Blank	Total/NA	Solid	5035	
LCS 280-369828/2-A	Lab Control Sample	Total/NA	Solid	5035	
280-95791-1 MS	RC-BA-01	Total/NA	Solid	5035	
280-95791-1 MSD	RC-BA-01	Total/NA	Solid	5035	

Analysis Batch: 369840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-1	RC-BA-01	Total/NA	Solid	8015C	369828
280-95791-2	RC-BA-02	Total/NA	Solid	8015C	369828
280-95791-3	RC-BA-03	Total/NA	Solid	8015C	369828
280-95791-4	RC-BA-04	Total/NA	Solid	8015C	369828
280-95791-5	RC-BA-05	Total/NA	Solid	8015C	369828
280-95791-6	RC-BA-06	Total/NA	Solid	8015C	369828

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

GC VOA (Continued)

Analysis Batch: 369840 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-7	RC-BA-07	Total/NA	Solid	8015C	369828
280-95791-8	RC-BA-08	Total/NA	Solid	8015C	369828
280-95791-9	RC-BA-09	Total/NA	Solid	8015C	369828
280-95791-10	RC-BA-10	Total/NA	Solid	8015C	369828
280-95791-11	RC-BA-DUP01	Total/NA	Solid	8015C	369828
MB 280-369828/1-A	Method Blank	Total/NA	Solid	8015C	369828
LCS 280-369828/2-A	Lab Control Sample	Total/NA	Solid	8015C	369828
280-95791-1 MS	RC-BA-01	Total/NA	Solid	8015C	369828
280-95791-1 MSD	RC-BA-01	Total/NA	Solid	8015C	369828

GC Semi VOA

Prep Batch: 369203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-1	RC-BA-01	Total/NA	Solid	3546	
280-95791-2	RC-BA-02	Total/NA	Solid	3546	
280-95791-4	RC-BA-04	Total/NA	Solid	3546	
280-95791-5	RC-BA-05	Total/NA	Solid	3546	
280-95791-6	RC-BA-06	Total/NA	Solid	3546	
280-95791-7	RC-BA-07	Total/NA	Solid	3546	
280-95791-8	RC-BA-08	Total/NA	Solid	3546	
280-95791-9	RC-BA-09	Total/NA	Solid	3546	
280-95791-11	RC-BA-DUP01	Total/NA	Solid	3546	
MB 280-369203/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-369203/2-A	Lab Control Sample	Total/NA	Solid	3546	
280-95791-1 MS	RC-BA-01	Total/NA	Solid	3546	
280-95791-1 MSD	RC-BA-01	Total/NA	Solid	3546	

Prep Batch: 369968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-3	RC-BA-03	Total/NA	Solid	3546	
280-95791-10	RC-BA-10	Total/NA	Solid	3546	
MB 280-369968/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-369968/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 370413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-1	RC-BA-01	Total/NA	Solid	8015C	369203
280-95791-2	RC-BA-02	Total/NA	Solid	8015C	369203
280-95791-4	RC-BA-04	Total/NA	Solid	8015C	369203
280-95791-5	RC-BA-05	Total/NA	Solid	8015C	369203
280-95791-6	RC-BA-06	Total/NA	Solid	8015C	369203
280-95791-7	RC-BA-07	Total/NA	Solid	8015C	369203
280-95791-8	RC-BA-08	Total/NA	Solid	8015C	369203
280-95791-9	RC-BA-09	Total/NA	Solid	8015C	369203
280-95791-11	RC-BA-DUP01	Total/NA	Solid	8015C	369203
MB 280-369203/1-A	Method Blank	Total/NA	Solid	8015C	369203
LCS 280-369203/2-A	Lab Control Sample	Total/NA	Solid	8015C	369203
280-95791-1 MS	RC-BA-01	Total/NA	Solid	8015C	369203
280-95791-1 MSD	RC-BA-01	Total/NA	Solid	8015C	369203

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

GC Semi VOA (Continued)

Analysis Batch: 370641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-3	RC-BA-03	Total/NA	Solid	8015C	369968
280-95791-10	RC-BA-10	Total/NA	Solid	8015C	369968
MB 280-369968/1-A	Method Blank	Total/NA	Solid	8015C	369968
LCS 280-369968/2-A	Lab Control Sample	Total/NA	Solid	8015C	369968

Metals

Prep Batch: 369080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-1	RC-BA-01	Total/NA	Solid	3050B	
280-95791-2	RC-BA-02	Total/NA	Solid	3050B	
280-95791-3	RC-BA-03	Total/NA	Solid	3050B	
280-95791-4	RC-BA-04	Total/NA	Solid	3050B	
280-95791-5	RC-BA-05	Total/NA	Solid	3050B	
280-95791-6	RC-BA-06	Total/NA	Solid	3050B	
280-95791-7	RC-BA-07	Total/NA	Solid	3050B	
280-95791-8	RC-BA-08	Total/NA	Solid	3050B	
280-95791-9	RC-BA-09	Total/NA	Solid	3050B	
280-95791-10	RC-BA-10	Total/NA	Solid	3050B	
280-95791-11	RC-BA-DUP01	Total/NA	Solid	3050B	
MB 280-369080/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 280-369080/2-A	Lab Control Sample	Total/NA	Solid	3050B	
280-95791-1 MS	RC-BA-01	Total/NA	Solid	3050B	
280-95791-1 MSD	RC-BA-01	Total/NA	Solid	3050B	

Prep Batch: 369081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-1	RC-BA-01	Total/NA	Solid	3050B	
280-95791-2	RC-BA-02	Total/NA	Solid	3050B	
280-95791-3	RC-BA-03	Total/NA	Solid	3050B	
280-95791-4	RC-BA-04	Total/NA	Solid	3050B	
280-95791-5	RC-BA-05	Total/NA	Solid	3050B	
280-95791-6	RC-BA-06	Total/NA	Solid	3050B	
280-95791-7	RC-BA-07	Total/NA	Solid	3050B	
280-95791-8	RC-BA-08	Total/NA	Solid	3050B	
280-95791-9	RC-BA-09	Total/NA	Solid	3050B	
280-95791-10	RC-BA-10	Total/NA	Solid	3050B	
280-95791-11	RC-BA-DUP01	Total/NA	Solid	3050B	
MB 280-369081/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 280-369081/2-A	Lab Control Sample	Total/NA	Solid	3050B	
280-95791-1 MS	RC-BA-01	Total/NA	Solid	3050B	
280-95791-1 MSD	RC-BA-01	Total/NA	Solid	3050B	

Prep Batch: 369086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-1	RC-BA-01	Soluble	Solid	20B	
280-95791-2	RC-BA-02	Soluble	Solid	20B	
280-95791-3	RC-BA-03	Soluble	Solid	20B	
280-95791-4	RC-BA-04	Soluble	Solid	20B	
280-95791-5	RC-BA-05	Soluble	Solid	20B	

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Metals (Continued)

Prep Batch: 369086 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-6	RC-BA-06	Soluble	Solid	20B	
280-95791-7	RC-BA-07	Soluble	Solid	20B	
280-95791-8	RC-BA-08	Soluble	Solid	20B	
280-95791-9	RC-BA-09	Soluble	Solid	20B	
280-95791-10	RC-BA-10	Soluble	Solid	20B	
280-95791-11	RC-BA-DUP01	Soluble	Solid	20B	
MB 280-369086/1-A	Method Blank	Soluble	Solid	20B	
280-95791-1 DU	RC-BA-01	Soluble	Solid	20B	

Analysis Batch: 369552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-1	RC-BA-01	Total/NA	Solid	6010C	369080
280-95791-2	RC-BA-02	Total/NA	Solid	6010C	369080
280-95791-3	RC-BA-03	Total/NA	Solid	6010C	369080
280-95791-4	RC-BA-04	Total/NA	Solid	6010C	369080
280-95791-5	RC-BA-05	Total/NA	Solid	6010C	369080
280-95791-6	RC-BA-06	Total/NA	Solid	6010C	369080
280-95791-7	RC-BA-07	Total/NA	Solid	6010C	369080
280-95791-8	RC-BA-08	Total/NA	Solid	6010C	369080
280-95791-9	RC-BA-09	Total/NA	Solid	6010C	369080
280-95791-10	RC-BA-10	Total/NA	Solid	6010C	369080
280-95791-11	RC-BA-DUP01	Total/NA	Solid	6010C	369080
MB 280-369080/1-A	Method Blank	Total/NA	Solid	6010C	369080
LCS 280-369080/2-A	Lab Control Sample	Total/NA	Solid	6010C	369080
280-95791-1 MS	RC-BA-01	Total/NA	Solid	6010C	369080
280-95791-1 MSD	RC-BA-01	Total/NA	Solid	6010C	369080

Analysis Batch: 369598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-1	RC-BA-01	Total/NA	Solid	6020A	369081
280-95791-2	RC-BA-02	Total/NA	Solid	6020A	369081
280-95791-3	RC-BA-03	Total/NA	Solid	6020A	369081
280-95791-4	RC-BA-04	Total/NA	Solid	6020A	369081
280-95791-5	RC-BA-05	Total/NA	Solid	6020A	369081
280-95791-6	RC-BA-06	Total/NA	Solid	6020A	369081
280-95791-7	RC-BA-07	Total/NA	Solid	6020A	369081
280-95791-8	RC-BA-08	Total/NA	Solid	6020A	369081
280-95791-9	RC-BA-09	Total/NA	Solid	6020A	369081
280-95791-10	RC-BA-10	Total/NA	Solid	6020A	369081
280-95791-11	RC-BA-DUP01	Total/NA	Solid	6020A	369081
MB 280-369081/1-A	Method Blank	Total/NA	Solid	6020A	369081
LCS 280-369081/2-A	Lab Control Sample	Total/NA	Solid	6020A	369081
280-95791-1 MS	RC-BA-01	Total/NA	Solid	6020A	369081
280-95791-1 MSD	RC-BA-01	Total/NA	Solid	6020A	369081

Analysis Batch: 369613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-1	RC-BA-01	Total/NA	Solid	6010C	369080
280-95791-2	RC-BA-02	Total/NA	Solid	6010C	369080
280-95791-3	RC-BA-03	Total/NA	Solid	6010C	369080
280-95791-4	RC-BA-04	Total/NA	Solid	6010C	369080

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Metals (Continued)

Analysis Batch: 369613 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-5	RC-BA-05	Total/NA	Solid	6010C	369080
280-95791-6	RC-BA-06	Total/NA	Solid	6010C	369080
280-95791-7	RC-BA-07	Total/NA	Solid	6010C	369080
280-95791-8	RC-BA-08	Total/NA	Solid	6010C	369080
280-95791-9	RC-BA-09	Total/NA	Solid	6010C	369080
280-95791-10	RC-BA-10	Total/NA	Solid	6010C	369080
280-95791-11	RC-BA-DUP01	Total/NA	Solid	6010C	369080
MB 280-369080/1-A	Method Blank	Total/NA	Solid	6010C	369080
LCS 280-369080/2-A	Lab Control Sample	Total/NA	Solid	6010C	369080
280-95791-1 MS	RC-BA-01	Total/NA	Solid	6010C	369080
280-95791-1 MSD	RC-BA-01	Total/NA	Solid	6010C	369080

Prep Batch: 369993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-1	RC-BA-01	Total/NA	Solid	7471A	
280-95791-2	RC-BA-02	Total/NA	Solid	7471A	
280-95791-3	RC-BA-03	Total/NA	Solid	7471A	
280-95791-4	RC-BA-04	Total/NA	Solid	7471A	
280-95791-5	RC-BA-05	Total/NA	Solid	7471A	
280-95791-6	RC-BA-06	Total/NA	Solid	7471A	
280-95791-7	RC-BA-07	Total/NA	Solid	7471A	
280-95791-8	RC-BA-08	Total/NA	Solid	7471A	
280-95791-9	RC-BA-09	Total/NA	Solid	7471A	
280-95791-10	RC-BA-10	Total/NA	Solid	7471A	
280-95791-11	RC-BA-DUP01	Total/NA	Solid	7471A	
MB 280-369993/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 280-369993/2-A	Lab Control Sample	Total/NA	Solid	7471A	
280-95791-1 MS	RC-BA-01	Total/NA	Solid	7471A	
280-95791-1 MSD	RC-BA-01	Total/NA	Solid	7471A	

Analysis Batch: 370169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-1	RC-BA-01	Total/NA	Solid	7471A	369993
280-95791-2	RC-BA-02	Total/NA	Solid	7471A	369993
280-95791-3	RC-BA-03	Total/NA	Solid	7471A	369993
280-95791-4	RC-BA-04	Total/NA	Solid	7471A	369993
280-95791-5	RC-BA-05	Total/NA	Solid	7471A	369993
280-95791-6	RC-BA-06	Total/NA	Solid	7471A	369993
280-95791-7	RC-BA-07	Total/NA	Solid	7471A	369993
280-95791-8	RC-BA-08	Total/NA	Solid	7471A	369993
280-95791-9	RC-BA-09	Total/NA	Solid	7471A	369993
280-95791-10	RC-BA-10	Total/NA	Solid	7471A	369993
280-95791-11	RC-BA-DUP01	Total/NA	Solid	7471A	369993
MB 280-369993/1-A	Method Blank	Total/NA	Solid	7471A	369993
LCS 280-369993/2-A	Lab Control Sample	Total/NA	Solid	7471A	369993
280-95791-1 MS	RC-BA-01	Total/NA	Solid	7471A	369993
280-95791-1 MSD	RC-BA-01	Total/NA	Solid	7471A	369993

Analysis Batch: 370249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-1	RC-BA-01	Soluble	Solid	20B	369086

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Metals (Continued)

Analysis Batch: 370249 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-2	RC-BA-02	Soluble	Solid	20B	369086
280-95791-3	RC-BA-03	Soluble	Solid	20B	369086
280-95791-4	RC-BA-04	Soluble	Solid	20B	369086
280-95791-5	RC-BA-05	Soluble	Solid	20B	369086
280-95791-6	RC-BA-06	Soluble	Solid	20B	369086
280-95791-7	RC-BA-07	Soluble	Solid	20B	369086
280-95791-8	RC-BA-08	Soluble	Solid	20B	369086
280-95791-9	RC-BA-09	Soluble	Solid	20B	369086
280-95791-10	RC-BA-10	Soluble	Solid	20B	369086
280-95791-11	RC-BA-DUP01	Soluble	Solid	20B	369086
MB 280-369086/1-A	Method Blank	Soluble	Solid	20B	369086
280-95791-1 DU	RC-BA-01	Soluble	Solid	20B	369086

General Chemistry

Analysis Batch: 369406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-1	RC-BA-01	Total/NA	Solid	Moisture	
280-95791-2	RC-BA-02	Total/NA	Solid	Moisture	
280-95791-3	RC-BA-03	Total/NA	Solid	Moisture	
280-95791-4	RC-BA-04	Total/NA	Solid	Moisture	
280-95791-5	RC-BA-05	Total/NA	Solid	Moisture	
280-95791-6	RC-BA-06	Total/NA	Solid	Moisture	
280-95791-7	RC-BA-07	Total/NA	Solid	Moisture	
280-95791-8	RC-BA-08	Total/NA	Solid	Moisture	
280-95791-9	RC-BA-09	Total/NA	Solid	Moisture	
280-95791-10	RC-BA-10	Total/NA	Solid	Moisture	
280-95791-11	RC-BA-DUP01	Total/NA	Solid	Moisture	
280-95791-9 DU	RC-BA-09	Total/NA	Solid	Moisture	

Leach Batch: 369457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-1	RC-BA-01	Soluble	Solid	DI Leach	
280-95791-2	RC-BA-02	Soluble	Solid	DI Leach	
280-95791-3	RC-BA-03	Soluble	Solid	DI Leach	
280-95791-4	RC-BA-04	Soluble	Solid	DI Leach	
280-95791-5	RC-BA-05	Soluble	Solid	DI Leach	
280-95791-6	RC-BA-06	Soluble	Solid	DI Leach	
280-95791-7	RC-BA-07	Soluble	Solid	DI Leach	
280-95791-8	RC-BA-08	Soluble	Solid	DI Leach	
280-95791-9	RC-BA-09	Soluble	Solid	DI Leach	
280-95791-10	RC-BA-10	Soluble	Solid	DI Leach	
280-95791-11	RC-BA-DUP01	Soluble	Solid	DI Leach	
LCS 280-369457/22-A	Lab Control Sample	Soluble	Solid	DI Leach	

Analysis Batch: 370033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-1	RC-BA-01	Soluble	Solid	9045D	369457
280-95791-2	RC-BA-02	Soluble	Solid	9045D	369457
280-95791-3	RC-BA-03	Soluble	Solid	9045D	369457

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

General Chemistry (Continued)

Analysis Batch: 370033 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-4	RC-BA-04	Soluble	Solid	9045D	369457
280-95791-5	RC-BA-05	Soluble	Solid	9045D	369457
280-95791-6	RC-BA-06	Soluble	Solid	9045D	369457
280-95791-7	RC-BA-07	Soluble	Solid	9045D	369457
280-95791-8	RC-BA-08	Soluble	Solid	9045D	369457
280-95791-9	RC-BA-09	Soluble	Solid	9045D	369457
280-95791-10	RC-BA-10	Soluble	Solid	9045D	369457
280-95791-11	RC-BA-DUP01	Soluble	Solid	9045D	369457
LCS 280-369457/22-A	Lab Control Sample	Soluble	Solid	9045D	369457

Prep Batch: 422713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-1	RC-BA-01	Soluble	Solid	Sat Paste Ext	
280-95791-2	RC-BA-02	Soluble	Solid	Sat Paste Ext	
280-95791-3	RC-BA-03	Soluble	Solid	Sat Paste Ext	
280-95791-4	RC-BA-04	Soluble	Solid	Sat Paste Ext	
280-95791-5	RC-BA-05	Soluble	Solid	Sat Paste Ext	
280-95791-6	RC-BA-06	Soluble	Solid	Sat Paste Ext	
280-95791-7	RC-BA-07	Soluble	Solid	Sat Paste Ext	
280-95791-8	RC-BA-08	Soluble	Solid	Sat Paste Ext	
280-95791-9	RC-BA-09	Soluble	Solid	Sat Paste Ext	
280-95791-10	RC-BA-10	Soluble	Solid	Sat Paste Ext	
280-95791-11	RC-BA-DUP01	Soluble	Solid	Sat Paste Ext	
280-95791-1 DU	RC-BA-01	Soluble	Solid	Sat Paste Ext	

Analysis Batch: 423759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-1	RC-BA-01	Soluble	Solid	9050A	422713
280-95791-2	RC-BA-02	Soluble	Solid	9050A	422713
280-95791-3	RC-BA-03	Soluble	Solid	9050A	422713
280-95791-4	RC-BA-04	Soluble	Solid	9050A	422713
280-95791-5	RC-BA-05	Soluble	Solid	9050A	422713
280-95791-6	RC-BA-06	Soluble	Solid	9050A	422713
280-95791-7	RC-BA-07	Soluble	Solid	9050A	422713
280-95791-8	RC-BA-08	Soluble	Solid	9050A	422713
280-95791-9	RC-BA-09	Soluble	Solid	9050A	422713
280-95791-10	RC-BA-10	Soluble	Solid	9050A	422713
280-95791-11	RC-BA-DUP01	Soluble	Solid	9050A	422713
LCS 490-423759/3	Lab Control Sample	Total/NA	Solid	9050A	
LCSD 490-423759/4	Lab Control Sample Dup	Total/NA	Solid	9050A	
280-95791-1 DU	RC-BA-01	Soluble	Solid	9050A	422713

Prep Batch: 424248

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-1	RC-BA-01	Total/NA	Solid	3060A	
280-95791-2	RC-BA-02	Total/NA	Solid	3060A	
280-95791-3	RC-BA-03	Total/NA	Solid	3060A	
280-95791-4	RC-BA-04	Total/NA	Solid	3060A	
280-95791-5	RC-BA-05	Total/NA	Solid	3060A	
280-95791-6	RC-BA-06	Total/NA	Solid	3060A	
280-95791-7	RC-BA-07	Total/NA	Solid	3060A	

TestAmerica Denver

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

General Chemistry (Continued)

Prep Batch: 424248 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-8	RC-BA-08	Total/NA	Solid	3060A	
280-95791-9	RC-BA-09	Total/NA	Solid	3060A	
280-95791-10	RC-BA-10	Total/NA	Solid	3060A	
280-95791-11	RC-BA-DUP01	Total/NA	Solid	3060A	
MB 490-424248/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 490-424248/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSS 490-424248/2-A	Lab Control Sample	Total/NA	Solid	3060A	
280-95791-1 MSI	RC-BA-01	Total/NA	Solid	3060A	
280-95791-1 MSS	RC-BA-01	Total/NA	Solid	3060A	
280-95791-1 DU	RC-BA-01	Total/NA	Solid	3060A	

Analysis Batch: 424500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-1	RC-BA-01	Total/NA	Solid	7196A	424248
280-95791-2	RC-BA-02	Total/NA	Solid	7196A	424248
280-95791-3	RC-BA-03	Total/NA	Solid	7196A	424248
280-95791-4	RC-BA-04	Total/NA	Solid	7196A	424248
280-95791-5	RC-BA-05	Total/NA	Solid	7196A	424248
280-95791-6	RC-BA-06	Total/NA	Solid	7196A	424248
280-95791-7	RC-BA-07	Total/NA	Solid	7196A	424248
280-95791-8	RC-BA-08	Total/NA	Solid	7196A	424248
280-95791-9	RC-BA-09	Total/NA	Solid	7196A	424248
280-95791-10	RC-BA-10	Total/NA	Solid	7196A	424248
280-95791-11	RC-BA-DUP01	Total/NA	Solid	7196A	424248
MB 490-424248/1-A	Method Blank	Total/NA	Solid	7196A	424248
LCSI 490-424248/3-A	Lab Control Sample	Total/NA	Solid	7196A	424248
LCSS 490-424248/2-A	Lab Control Sample	Total/NA	Solid	7196A	424248
280-95791-1 MSI	RC-BA-01	Total/NA	Solid	7196A	424248
280-95791-1 MSS	RC-BA-01	Total/NA	Solid	7196A	424248
280-95791-1 DU	RC-BA-01	Total/NA	Solid	7196A	424248

Analysis Batch: 424595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-95791-1	RC-BA-01	Total/NA	Solid	7196A	
280-95791-2	RC-BA-02	Total/NA	Solid	7196A	
280-95791-3	RC-BA-03	Total/NA	Solid	7196A	
280-95791-4	RC-BA-04	Total/NA	Solid	7196A	
280-95791-5	RC-BA-05	Total/NA	Solid	7196A	
280-95791-6	RC-BA-06	Total/NA	Solid	7196A	
280-95791-7	RC-BA-07	Total/NA	Solid	7196A	
280-95791-8	RC-BA-08	Total/NA	Solid	7196A	
280-95791-9	RC-BA-09	Total/NA	Solid	7196A	
280-95791-10	RC-BA-10	Total/NA	Solid	7196A	
280-95791-11	RC-BA-DUP01	Total/NA	Solid	7196A	

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Client Sample ID: RC-BA-01

Date Collected: 04/11/17 10:00

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	20B			96.517 g	50 mL	369086	04/12/17 12:15	SUR	TAL DEN
Soluble	Analysis	20B		10			370249	04/20/17 01:58	CML	TAL DEN
Soluble	Leach	DI Leach			40.14 g	40 mL	369457	04/14/17 13:02	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	370033	04/19/17 10:22	IEU	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	422713	04/19/17 09:58	BAA	TAL NSH
Soluble	Analysis	9050A		1			423759	04/20/17 15:00	JAB	TAL NSH
Total/NA	Analysis	Moisture		1			369406	04/14/17 09:43	PAH	TAL DEN

Client Sample ID: RC-BA-01

Date Collected: 04/11/17 10:00

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-1

Matrix: Solid

Percent Solids: 78.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.531 g	5 mL	369710	04/11/17 10:00	ADD	TAL DEN
Total/NA	Analysis	8260B		1	5 g	5 mL	369704	04/17/17 18:55	ADD	TAL DEN
Total/NA	Prep	3546			30.0 g	1 mL	369761	04/18/17 09:47	JRA	TAL DEN
Total/NA	Analysis	8270D SIM		1			370634	04/24/17 15:45	KGV	TAL DEN
Total/NA	Prep	5035			5.645 g	5 mL	369828	04/11/17 10:00	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	369840	04/18/17 23:34	KDK	TAL DEN
Total/NA	Prep	3546			30.2 g	1 mL	369203	04/13/17 08:29	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			370413	04/22/17 05:51	TEM	TAL DEN
Total/NA	Prep	3050B			1.005 g	100 mL	369080	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			369552	04/16/17 06:23	CRR	TAL DEN
Total/NA	Prep	3050B			1.005 g	100 mL	369080	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			369613	04/16/17 18:34	SJS	TAL DEN
Total/NA	Prep	3050B			1.116 g	100 mL	369081	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			369598	04/14/17 15:43	LMT	TAL DEN
Total/NA	Prep	7471A			0.57 g	50 mL	369993	04/19/17 12:39	CDH	TAL DEN
Total/NA	Analysis	7471A		1			370169	04/19/17 21:22	CDH	TAL DEN
Total/NA	Prep	3060A			2.5934 g	500 mL	424248	04/22/17 11:27	BLM	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	424500	04/23/17 15:30	BLM	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	424595	04/23/17 15:30	BMC	TAL NSH

Client Sample ID: RC-BA-02

Date Collected: 04/11/17 10:45

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	20B			91.329 g	50 mL	369086	04/12/17 12:15	SUR	TAL DEN
Soluble	Analysis	20B		10			370249	04/20/17 02:07	CML	TAL DEN
Soluble	Leach	DI Leach			40.23 g	40 mL	369457	04/14/17 13:02	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	370033	04/19/17 10:22	IEU	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	422713	04/19/17 09:58	BAA	TAL NSH

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Client Sample ID: RC-BA-02

Date Collected: 04/11/17 10:45

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Analysis	9050A		1			423759	04/20/17 15:00	JAB	TAL NSH
Total/NA	Analysis	Moisture		1			369406	04/14/17 09:43	PAH	TAL DEN

Client Sample ID: RC-BA-02

Date Collected: 04/11/17 10:45

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-2

Matrix: Solid

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	5035			5.305 g	5 mL	369710	04/11/17 10:45	ADD	TAL DEN
Total/NA	Analysis	8260B		1	5 g	5 mL	369704	04/17/17 19:58	ADD	TAL DEN
Total/NA	Prep	3546			30.0 g	1 mL	369761	04/18/17 09:47	JRA	TAL DEN
Total/NA	Analysis	8270D SIM		20			370634	04/24/17 17:04	KGV	TAL DEN
Total/NA	Prep	5035			5.323 g	5 mL	369828	04/11/17 10:45	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	369840	04/18/17 22:45	KDK	TAL DEN
Total/NA	Prep	3546			30.6 g	1 mL	369203	04/13/17 08:29	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			370413	04/22/17 07:53	TEM	TAL DEN
Total/NA	Prep	3050B			1.119 g	100 mL	369080	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			369552	04/16/17 06:35	CRR	TAL DEN
Total/NA	Prep	3050B			1.119 g	100 mL	369080	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			369613	04/16/17 18:47	SJS	TAL DEN
Total/NA	Prep	3050B			1.161 g	100 mL	369081	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			369598	04/14/17 16:02	LMT	TAL DEN
Total/NA	Prep	7471A			0.54 g	50 mL	369993	04/19/17 12:39	CDH	TAL DEN
Total/NA	Analysis	7471A		1			370169	04/19/17 21:28	CDH	TAL DEN
Total/NA	Prep	3060A			2.5029 g	500 mL	424248	04/22/17 11:27	BLM	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	424500	04/23/17 15:30	BLM	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	424595	04/23/17 15:30	BMC	TAL NSH

Client Sample ID: RC-BA-03

Date Collected: 04/11/17 12:00

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	20B			90.243 g	50 mL	369086	04/12/17 12:15	SUR	TAL DEN
Soluble	Analysis	20B		10			370249	04/20/17 02:10	CML	TAL DEN
Soluble	Leach	DI Leach			40.38 g	40 mL	369457	04/14/17 13:02	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	370033	04/19/17 10:22	IEU	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	422713	04/19/17 09:58	BAA	TAL NSH
Soluble	Analysis	9050A		1			423759	04/20/17 15:00	JAB	TAL NSH
Total/NA	Analysis	Moisture		1			369406	04/14/17 09:43	PAH	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Client Sample ID: RC-BA-03

Date Collected: 04/11/17 12:00

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-3

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	5035			5.662 g	5 mL	369710	04/11/17 12:00	ADD	TAL DEN
Total/NA	Analysis	8260B		1	5 g	5 mL	369704	04/17/17 20:19	ADD	TAL DEN
Total/NA	Prep	3546			30.1 g	1 mL	369761	04/18/17 09:47	JRA	TAL DEN
Total/NA	Analysis	8270D SIM		1			370634	04/24/17 17:31	KGV	TAL DEN
Total/NA	Prep	5035			5.891 g	5 mL	369828	04/11/17 12:00	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	369840	04/19/17 00:48	KDK	TAL DEN
Total/NA	Prep	3546			30.1 g	1 mL	369968	04/19/17 09:05	JRA	TAL DEN
Total/NA	Analysis	8015C		1			370641	04/24/17 23:04	TEM	TAL DEN
Total/NA	Prep	3050B			1.050 g	100 mL	369080	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			369552	04/16/17 06:38	CRR	TAL DEN
Total/NA	Prep	3050B			1.050 g	100 mL	369080	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			369613	04/16/17 18:49	SJS	TAL DEN
Total/NA	Prep	3050B			1.055 g	100 mL	369081	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			369598	04/14/17 16:05	LMT	TAL DEN
Total/NA	Prep	7471A			0.54 g	50 mL	369993	04/19/17 12:39	CDH	TAL DEN
Total/NA	Analysis	7471A		1			370169	04/19/17 21:35	CDH	TAL DEN
Total/NA	Prep	3060A			2.5535 g	500 mL	424248	04/22/17 11:27	BLM	TAL NSH
Total/NA	Analysis	7196A		10	50 mL	50 mL	424500	04/23/17 15:30	BLM	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	424595	04/23/17 15:30	BMC	TAL NSH

Client Sample ID: RC-BA-04

Date Collected: 04/11/17 12:08

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	20B			97.813 g	50 mL	369086	04/12/17 12:15	SUR	TAL DEN
Soluble	Analysis	20B		10			370249	04/20/17 02:12	CML	TAL DEN
Soluble	Leach	DI Leach			40.44 g	40 mL	369457	04/14/17 13:02	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	370033	04/19/17 10:22	IEU	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	422713	04/19/17 09:58	BAA	TAL NSH
Soluble	Analysis	9050A		1			423759	04/20/17 15:00	JAB	TAL NSH
Total/NA	Analysis	Moisture		1			369406	04/14/17 09:43	PAH	TAL DEN

Client Sample ID: RC-BA-04

Date Collected: 04/11/17 12:08

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-4

Matrix: Solid

Percent Solids: 95.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.37 g	5 mL	369710	04/11/17 12:08	ADD	TAL DEN
Total/NA	Analysis	8260B		1	5 g	5 mL	369704	04/17/17 20:40	ADD	TAL DEN
Total/NA	Prep	3546			30.2 g	1 mL	369761	04/18/17 09:47	JRA	TAL DEN
Total/NA	Analysis	8270D SIM		1			370634	04/24/17 17:57	KGV	TAL DEN
Total/NA	Prep	5035			5.161 g	5 mL	369828	04/11/17 12:08	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Client Sample ID: RC-BA-04

Date Collected: 04/11/17 12:08

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-4

Matrix: Solid

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	Analysis	8015C		1	0.1 mL	5 mL	369840	04/19/17 01:13	KDK	TAL DEN
Total/NA	Prep	3546			31.5 g	1 mL	369203	04/13/17 08:29	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			370413	04/22/17 08:18	TEM	TAL DEN
Total/NA	Prep	3050B			1.165 g	100 mL	369080	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			369552	04/16/17 06:41	CRR	TAL DEN
Total/NA	Prep	3050B			1.165 g	100 mL	369080	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			369613	04/16/17 18:52	SJS	TAL DEN
Total/NA	Prep	3050B			1.255 g	100 mL	369081	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			369598	04/14/17 16:20	LMT	TAL DEN
Total/NA	Prep	7471A			0.56 g	50 mL	369993	04/19/17 12:39	CDH	TAL DEN
Total/NA	Analysis	7471A		1			370169	04/19/17 21:38	CDH	TAL DEN
Total/NA	Prep	3060A			2.5428 g	500 mL	424248	04/22/17 11:27	BLM	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	424500	04/23/17 15:30	BLM	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	424595	04/23/17 15:30	BMC	TAL NSH

Client Sample ID: RC-BA-05

Date Collected: 04/11/17 11:30

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	20B			97.114 g	50 mL	369086	04/12/17 12:15	SUR	TAL DEN
Soluble	Analysis	20B		10			370249	04/20/17 02:15	CML	TAL DEN
Soluble	Leach	DI Leach			40.43 g	40 mL	369457	04/14/17 13:02	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	370033	04/19/17 10:22	IEU	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	422713	04/19/17 09:58	BAA	TAL NSH
Soluble	Analysis	9050A		1			423759	04/20/17 15:00	JAB	TAL NSH
Total/NA	Analysis	Moisture		1			369406	04/14/17 09:43	PAH	TAL DEN

Client Sample ID: RC-BA-05

Date Collected: 04/11/17 11:30

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-5

Matrix: Solid

Percent Solids: 79.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.93 g	5 mL	369710	04/11/17 11:30	ADD	TAL DEN
Total/NA	Analysis	8260B		1	5 g	5 mL	369704	04/17/17 21:01	ADD	TAL DEN
Total/NA	Prep	3546			30.1 g	1 mL	369761	04/18/17 09:47	JRA	TAL DEN
Total/NA	Analysis	8270D SIM		1			370634	04/24/17 18:24	KGV	TAL DEN
Total/NA	Prep	5035			5.727 g	5 mL	369828	04/11/17 11:30	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	369840	04/19/17 01:38	KDK	TAL DEN
Total/NA	Prep	3546			32.9 g	1 mL	369203	04/13/17 08:29	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			370413	04/22/17 08:42	TEM	TAL DEN
Total/NA	Prep	3050B			1.494 g	100 mL	369080	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			369552	04/16/17 06:53	CRR	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Client Sample ID: RC-BA-05

Date Collected: 04/11/17 11:30

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-5

Matrix: Solid

Percent Solids: 79.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.494 g	100 mL	369080	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			369613	04/16/17 19:04	SJS	TAL DEN
Total/NA	Prep	3050B			1.453 g	100 mL	369081	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			369598	04/14/17 16:24	LMT	TAL DEN
Total/NA	Prep	7471A			0.55 g	50 mL	369993	04/19/17 12:39	CDH	TAL DEN
Total/NA	Analysis	7471A		1			370169	04/19/17 21:40	CDH	TAL DEN
Total/NA	Prep	3060A			2.5357 g	500 mL	424248	04/22/17 11:27	BLM	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	424500	04/23/17 15:30	BLM	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	424595	04/23/17 15:30	BMC	TAL NSH

Client Sample ID: RC-BA-06

Date Collected: 04/11/17 11:10

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	20B			95.278 g	50 mL	369086	04/12/17 12:15	SUR	TAL DEN
Soluble	Analysis	20B		10			370249	04/20/17 02:18	CML	TAL DEN
Soluble	Leach	DI Leach			40.16 g	40 mL	369457	04/14/17 13:02	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	370033	04/19/17 10:22	IEU	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	422713	04/19/17 09:58	BAA	TAL NSH
Soluble	Analysis	9050A		1			423759	04/20/17 15:00	JAB	TAL NSH
Total/NA	Analysis	Moisture		1			369406	04/14/17 09:43	PAH	TAL DEN

Client Sample ID: RC-BA-06

Date Collected: 04/11/17 11:10

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-6

Matrix: Solid

Percent Solids: 81.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.072 g	5 mL	369710	04/11/17 11:10	ADD	TAL DEN
Total/NA	Analysis	8260B		1	5 g	5 mL	369704	04/17/17 21:22	ADD	TAL DEN
Total/NA	Prep	3546			30.2 g	1 mL	369761	04/18/17 09:47	JRA	TAL DEN
Total/NA	Analysis	8270D SIM		1			370634	04/24/17 18:50	KGV	TAL DEN
Total/NA	Prep	5035			5.176 g	5 mL	369828	04/11/17 11:10	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	369840	04/19/17 02:02	KDK	TAL DEN
Total/NA	Prep	3546			30.9 g	1 mL	369203	04/13/17 08:29	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			370413	04/22/17 09:06	TEM	TAL DEN
Total/NA	Prep	3050B			1.000 g	100 mL	369080	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			369552	04/16/17 06:56	CRR	TAL DEN
Total/NA	Prep	3050B			1.000 g	100 mL	369080	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			369613	04/16/17 19:07	SJS	TAL DEN
Total/NA	Prep	3050B			1.068 g	100 mL	369081	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			369598	04/14/17 16:28	LMT	TAL DEN
Total/NA	Prep	7471A			0.53 g	50 mL	369993	04/19/17 12:39	CDH	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Client Sample ID: RC-BA-06

Date Collected: 04/11/17 11:10

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-6

Matrix: Solid

Percent Solids: 81.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7471A		1			370169	04/19/17 21:42	CDH	TAL DEN
Total/NA	Prep	3060A			2.5225 g	500 mL	424248	04/22/17 11:27	BLM	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	424500	04/23/17 15:30	BLM	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	424595	04/23/17 15:30	BMC	TAL NSH

Client Sample ID: RC-BA-07

Date Collected: 04/11/17 12:15

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	20B			97.485 g	50 mL	369086	04/12/17 12:15	SUR	TAL DEN
Soluble	Analysis	20B		10			370249	04/20/17 02:21	CML	TAL DEN
Soluble	Leach	DI Leach			40.23 g	40 mL	369457	04/14/17 13:02	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	370033	04/19/17 10:22	IEU	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	422713	04/19/17 09:58	BAA	TAL NSH
Soluble	Analysis	9050A		1			423759	04/20/17 15:00	JAB	TAL NSH
Total/NA	Analysis	Moisture		1			369406	04/14/17 09:43	PAH	TAL DEN

Client Sample ID: RC-BA-07

Date Collected: 04/11/17 12:15

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-7

Matrix: Solid

Percent Solids: 73.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.421 g	5 mL	369710	04/11/17 12:15	ADD	TAL DEN
Total/NA	Analysis	8260B		1	5 g	5 mL	369704	04/17/17 21:43	ADD	TAL DEN
Total/NA	Prep	3546			30.4 g	1 mL	369761	04/18/17 09:47	JRA	TAL DEN
Total/NA	Analysis	8270D SIM		1			370634	04/24/17 19:17	KGV	TAL DEN
Total/NA	Prep	5035			5.828 g	5 mL	369828	04/11/17 12:15	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	369840	04/19/17 02:27	KDK	TAL DEN
Total/NA	Prep	3546			30.8 g	1 mL	369203	04/13/17 08:29	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			370413	04/22/17 09:31	TEM	TAL DEN
Total/NA	Prep	3050B			1.026 g	100 mL	369080	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			369552	04/16/17 06:58	CRR	TAL DEN
Total/NA	Prep	3050B			1.026 g	100 mL	369080	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			369613	04/16/17 19:10	SJS	TAL DEN
Total/NA	Prep	3050B			1.119 g	100 mL	369081	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			369598	04/14/17 16:32	LMT	TAL DEN
Total/NA	Prep	7471A			0.54 g	50 mL	369993	04/19/17 12:39	CDH	TAL DEN
Total/NA	Analysis	7471A		1			370169	04/19/17 21:45	CDH	TAL DEN
Total/NA	Prep	3060A			2.5312 g	500 mL	424248	04/22/17 11:27	BLM	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	424500	04/23/17 15:30	BLM	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	424595	04/23/17 15:30	BMC	TAL NSH

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Client Sample ID: RC-BA-08

Date Collected: 04/11/17 12:50

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	20B			96.623 g	50 mL	369086	04/12/17 12:15	SUR	TAL DEN
Soluble	Analysis	20B		10			370249	04/20/17 02:35	CML	TAL DEN
Soluble	Leach	DI Leach			40.25 g	40 mL	369457	04/14/17 13:02	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	370033	04/19/17 10:22	IEU	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	422713	04/19/17 09:58	BAA	TAL NSH
Soluble	Analysis	9050A		1			423759	04/20/17 15:00	JAB	TAL NSH
Total/NA	Analysis	Moisture		1			369406	04/14/17 09:43	PAH	TAL DEN

Client Sample ID: RC-BA-08

Date Collected: 04/11/17 12:50

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-8

Matrix: Solid

Percent Solids: 87.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.979 g	5 mL	369710	04/11/17 12:50	ADD	TAL DEN
Total/NA	Analysis	8260B		1	5 g	5 mL	369704	04/17/17 22:04	ADD	TAL DEN
Total/NA	Prep	3546			30.2 g	1 mL	369761	04/18/17 09:47	JRA	TAL DEN
Total/NA	Analysis	8270D SIM		1			370634	04/24/17 19:43	KGV	TAL DEN
Total/NA	Prep	5035			5.938 g	5 mL	369828	04/11/17 12:50	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	369840	04/19/17 02:51	KDK	TAL DEN
Total/NA	Prep	3546			31.4 g	1 mL	369203	04/13/17 08:29	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			370413	04/22/17 09:55	TEM	TAL DEN
Total/NA	Prep	3050B			1.298 g	100 mL	369080	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			369552	04/16/17 07:01	CRR	TAL DEN
Total/NA	Prep	3050B			1.298 g	100 mL	369080	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			369613	04/16/17 19:12	SJS	TAL DEN
Total/NA	Prep	3050B			1.137 g	100 mL	369081	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			369598	04/14/17 16:36	LMT	TAL DEN
Total/NA	Prep	7471A			0.57 g	50 mL	369993	04/19/17 12:39	CDH	TAL DEN
Total/NA	Analysis	7471A		1			370169	04/19/17 21:47	CDH	TAL DEN
Total/NA	Prep	3060A			2.5032 g	500 mL	424248	04/22/17 11:27	BLM	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	424500	04/23/17 15:30	BLM	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	424595	04/23/17 15:30	BMC	TAL NSH

Client Sample ID: RC-BA-09

Date Collected: 04/11/17 12:40

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-9

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	20B			99.671 g	50 mL	369086	04/12/17 12:15	SUR	TAL DEN
Soluble	Analysis	20B		10			370249	04/20/17 02:38	CML	TAL DEN
Soluble	Leach	DI Leach			40.32 g	40 mL	369457	04/14/17 13:02	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	370033	04/19/17 10:22	IEU	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	422713	04/19/17 09:58	BAA	TAL NSH

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Client Sample ID: RC-BA-09

Date Collected: 04/11/17 12:40

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-9

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Analysis	9050A		1			423759	04/20/17 15:00	JAB	TAL NSH
Total/NA	Analysis	Moisture		1			369406	04/14/17 09:43	PAH	TAL DEN

Client Sample ID: RC-BA-09

Date Collected: 04/11/17 12:40

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-9

Matrix: Solid

Percent Solids: 82.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.646 g	5 mL	369710	04/11/17 12:40	ADD	TAL DEN
Total/NA	Analysis	8260B		1	5 g	5 mL	369704	04/17/17 22:24	ADD	TAL DEN
Total/NA	Prep	3546			31.0 g	1 mL	369761	04/18/17 09:47	JRA	TAL DEN
Total/NA	Analysis	8270D SIM		1			370634	04/24/17 20:09	KGV	TAL DEN
Total/NA	Prep	5035			4.83 g	5 mL	369828	04/11/17 12:40	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	369840	04/19/17 03:16	KDK	TAL DEN
Total/NA	Prep	3546			31.2 g	1 mL	369203	04/13/17 08:29	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			370413	04/22/17 10:19	TEM	TAL DEN
Total/NA	Prep	3050B			1.221 g	100 mL	369080	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			369552	04/16/17 07:04	CRR	TAL DEN
Total/NA	Prep	3050B			1.221 g	100 mL	369080	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			369613	04/16/17 19:15	SJS	TAL DEN
Total/NA	Prep	3050B			1.200 g	100 mL	369081	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			369598	04/14/17 16:39	LMT	TAL DEN
Total/NA	Prep	7471A			0.53 g	50 mL	369993	04/19/17 12:39	CDH	TAL DEN
Total/NA	Analysis	7471A		1			370169	04/19/17 21:49	CDH	TAL DEN
Total/NA	Prep	3060A			2.5459 g	500 mL	424248	04/22/17 11:27	BLM	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	424500	04/23/17 15:30	BLM	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	424595	04/23/17 15:30	BMC	TAL NSH

Client Sample ID: RC-BA-10

Date Collected: 04/11/17 12:30

Date Received: 04/12/17 08:45

Lab Sample ID: 280-95791-10

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	20B			95.376 g	50 mL	369086	04/12/17 12:15	SUR	TAL DEN
Soluble	Analysis	20B		10			370249	04/20/17 02:41	CML	TAL DEN
Soluble	Leach	DI Leach			40.34 g	40 mL	369457	04/14/17 13:02	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	370033	04/19/17 10:22	IEU	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	422713	04/19/17 09:58	BAA	TAL NSH
Soluble	Analysis	9050A		1			423759	04/20/17 15:00	JAB	TAL NSH
Total/NA	Analysis	Moisture		1			369406	04/14/17 09:43	PAH	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Client Sample ID: RC-BA-10

Lab Sample ID: 280-95791-10

Date Collected: 04/11/17 12:30

Matrix: Solid

Date Received: 04/12/17 08:45

Percent Solids: 88.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.351 g	5 mL	369710	04/11/17 12:30	ADD	TAL DEN
Total/NA	Analysis	8260B		1	5 g	5 mL	369704	04/17/17 18:13	ADD	TAL DEN
Total/NA	Prep	3546			31.8 g	1 mL	369761	04/18/17 09:47	JRA	TAL DEN
Total/NA	Analysis	8270D SIM		1			370634	04/24/17 20:35	KGV	TAL DEN
Total/NA	Prep	5035			4.323 g	5 mL	369828	04/11/17 12:30	TEM	TAL DEN
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	369840	04/19/17 03:41	KDK	TAL DEN
Total/NA	Prep	3546			30.2 g	1 mL	369968	04/19/17 09:05	JRA	TAL DEN
Total/NA	Analysis	8015C		1			370641	04/24/17 23:29	TEM	TAL DEN
Total/NA	Prep	3050B			1.015 g	100 mL	369080	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			369552	04/16/17 07:06	CRR	TAL DEN
Total/NA	Prep	3050B			1.015 g	100 mL	369080	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			369613	04/16/17 19:17	SJS	TAL DEN
Total/NA	Prep	3050B			1.148 g	100 mL	369081	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			369598	04/14/17 16:43	LMT	TAL DEN
Total/NA	Prep	7471A			0.50 g	50 mL	369993	04/19/17 12:39	CDH	TAL DEN
Total/NA	Analysis	7471A		1			370169	04/19/17 21:52	CDH	TAL DEN
Total/NA	Prep	3060A			2.5939 g	500 mL	424248	04/22/17 11:27	BLM	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	424500	04/23/17 15:30	BLM	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	424595	04/23/17 15:30	BMC	TAL NSH

Client Sample ID: RC-BA-DUP01

Lab Sample ID: 280-95791-11

Date Collected: 04/11/17 10:50

Matrix: Solid

Date Received: 04/12/17 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	20B			97.781 g	50 mL	369086	04/12/17 12:15	SUR	TAL DEN
Soluble	Analysis	20B		10			370249	04/20/17 02:44	CML	TAL DEN
Soluble	Leach	DI Leach			40.17 g	40 mL	369457	04/14/17 13:02	IEU	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	370033	04/19/17 10:22	IEU	TAL DEN
Soluble	Prep	Sat Paste Ext			1 g	1 mL	422713	04/19/17 09:58	BAA	TAL NSH
Soluble	Analysis	9050A		1			423759	04/20/17 15:00	JAB	TAL NSH
Total/NA	Analysis	Moisture		1			369406	04/14/17 09:43	PAH	TAL DEN

Client Sample ID: RC-BA-DUP01

Lab Sample ID: 280-95791-11

Date Collected: 04/11/17 10:50

Matrix: Solid

Date Received: 04/12/17 08:45

Percent Solids: 89.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.406 g	5 mL	369710	04/11/17 10:50	ADD	TAL DEN
Total/NA	Analysis	8260B		1	5 g	5 mL	369704	04/17/17 18:34	ADD	TAL DEN
Total/NA	Prep	3546			30.6 g	1 mL	369761	04/18/17 09:47	JRA	TAL DEN
Total/NA	Analysis	8270D SIM		20			370634	04/24/17 21:02	KGV	TAL DEN
Total/NA	Prep	5035			5.714 g	5 mL	369828	04/11/17 10:50	TEM	TAL DEN

TestAmerica Denver

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

Client Sample ID: RC-BA-DUP01

Lab Sample ID: 280-95791-11

Date Collected: 04/11/17 10:50

Matrix: Solid

Date Received: 04/12/17 08:45

Percent Solids: 89.6

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	369840	04/19/17 04:05	KDK	TAL DEN
Total/NA	Prep	3546			31.1 g	1 mL	369203	04/13/17 08:29	DFB1	TAL DEN
Total/NA	Analysis	8015C		1			370413	04/22/17 10:44	TEM	TAL DEN
Total/NA	Prep	3050B			1.020 g	100 mL	369080	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			369552	04/16/17 07:09	CRR	TAL DEN
Total/NA	Prep	3050B			1.020 g	100 mL	369080	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6010C		1			369613	04/16/17 19:20	SJS	TAL DEN
Total/NA	Prep	3050B			1.316 g	100 mL	369081	04/13/17 14:35	SEJ	TAL DEN
Total/NA	Analysis	6020A		1			369598	04/14/17 16:47	LMT	TAL DEN
Total/NA	Prep	7471A			0.58 g	50 mL	369993	04/19/17 12:39	CDH	TAL DEN
Total/NA	Analysis	7471A		1			370169	04/19/17 21:54	CDH	TAL DEN
Total/NA	Prep	3060A			2.5575 g	500 mL	424248	04/22/17 11:27	BLM	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	424500	04/23/17 15:30	BLM	TAL NSH
Total/NA	Analysis	7196A		1	50 mL	50 mL	424595	04/23/17 15:30	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

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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	09-01-17
Arizona	State Program	9	AZ0473	05-05-17
Arkansas DEQ	State Program	6	88-0737	04-25-18
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: Chevron Rangely, CO C-4

TestAmerica Job ID: 280-95791-1

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	03-31-18
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

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: 4/11/17											
Tel/Fax: (303) 250-4718		Lab Contact: Jamie Ide		Carrier: Courier		COC No: / of 1 Pages											
2000 South Colorado Blvd., Suite 2-300		Analysis Turnaround Time		For Lab Use Only:		Sampler: Stauthamer/Jones											
Denver, CO 80222		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS		Walk-in Client:		Lab Sampling:											
(303) 758-4058 Phone		TAT if different from Below		Job / SDG No.:													
(303) 758-4828 FAX		ASAP.															
Project Name: CPL-Rangely C-4		2 weeks															
Site: CPL Rangely		1 week															
P O # 203720102		2 days															
		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 8015B	DRO-TEPH 8015B	ORO-TEPH 8015B	PAHs 8270D SIM	EC/SAR	Metals 6010C	Hg 7171A	pH 9045D	Moisture	Chloride 7196A
RC-BA-01	4/11/2017	1000	G	Soil	27	N	Y	X	X	X	X	X	X	X	X	X	X
RC-BA-02	4/11/2017	1045	G	Soil	9	N	N	X	X	X	X	X	X	X	X	X	X
RC-BA-03	4/11/2017	1200	G	Soil	9	N	N	X	X	X	X	X	X	X	X	X	X
RC-BA-04	4/11/2017	1208	G	Soil	9	N	N	X	X	X	X	X	X	X	X	X	X
RC-BA-05	4/11/2017	1130	G	Soil	9	N	N	X	X	X	X	X	X	X	X	X	X
RC-BA-06	4/11/2017	1110	G	Soil	9	N	N	X	X	X	X	X	X	X	X	X	X
RC-BA-07	4/11/2017	1215	G	Soil	9	N	N	X	X	X	X	X	X	X	X	X	X
RC-BA-08	4/11/2017	1250	G	Soil	9	N	N	X	X	X	X	X	X	X	X	X	X
RC-BA-09	4/11/2017	1240	G	Soil	9	N	N	X	X	X	X	X	X	X	X	X	X
RC-BA-10	4/11/2017	1230	G	Soil	9	N	N	X	X	X	X	X	X	X	X	X	X
RC-BA-DUP01	4/11/2017	1050	G	Soil	9	N	N	X	X	X	X	X	X	X	X	X	X
<p>Preservation Used: <input checked="" type="checkbox"/> Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> HCl <input type="checkbox"/> H2SO4 <input type="checkbox"/> HNO3 <input type="checkbox"/> NaOH <input type="checkbox"/> Other</p> <p>Possible Hazard Identification: Please List any EPA Waste Codes for the sample in the Are any samples from a listed EPA Hazardous Waste? Section if the lab is to dispose of the sample.</p> <p>Comments Section if the lab is to dispose of the sample.</p> <p><input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown</p> <p>Special Instructions/QC Requirements & Comments:</p> <p>Metals include Ba, B, Cd, Cr, Cu, Pb, Ni, Se, Ag, Zn</p> <p>Custody Seal No.: 3.1, 4.1, 2.0, 1.8, 7 to 0.0 transferred by DS 4/12/17</p> <p>Cooler Temp. (°C): Obs'd: Cor'd:</p> <p>Therm ID No.:</p> <p>Relinquished by: Mike Stauthamer Date/Time: 4/11/17 1620</p> <p>Relinquished by: Date/Time: 4/12/17 0845</p> <p>Relinquished by: Date/Time:</p>																	

COOLER RECEIPT FORM



Cooler Received/Opened On 04-13-2017 @ 09:45

Time Samples Removed From Cooler 17:14 Time Samples Placed In Storage 18:56 (2 Hour Window)

1. Tracking # 2540 (last 4 digits, FedEx) Courier: FedEx
IR Gun ID 160656843 pH Strip Lot N/A Chlorine Strip Lot N/A

2. Temperature of rep. sample or temp blank when opened: 4.1 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? 1 (front) YES...NO...NA
If yes, how many and where: _____

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 # _____

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

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) KD

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) KD

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

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

4/26/2017

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

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

Chain of Custody Record

TestAmerica

THE UNIVERSITY OF CHICAGO PRESS

Client Information (Sub Contract Lab)				Sample:		Lab PM:		Carrier Tracking No(s):		COC No:	
Client Contact: Shipping/Receiving				Phone:		Ide, Jamie N		State of Origin: Colorado		Page: 2 of 2	
Company: TestAmerica Laboratories, Inc				E-Mail: jamie.ide@testamerica.com		Accreditations Required (See note):		Job #: 280-95791-1		Preservation Codes:	
Address: 2960 Foster Creighton Drive,				Due Date Requested: 4/24/2017		Analysis Requested		A - HCL		M - Hexane	
City: Nashville				TAT Requested (days):				B - NaOH		N - None	
State, Zip: TN, 37204				PO #:				C - Zn Acetate		O - AsNaO2	
Phone: 615-726-0177(Tel) 615-726-3404(Fax)				WO #:				D - Nitric Acid		P - Na2O4S	
Email:				Project #:				E - NaHSO4		Q - Na2SO3	
Project Name: Chevron Rangely, CO				SSOM#:				F - MeOH		R - Na2S2O3	
Site:				Field Filtered Sample (Yes or No)				G - Anichlor		S - H2SO4	
				Perform MS/MSD (Yes or No)				H - Ascorbic Acid		T - TSP Dodecylsulfate	
				7196A_CR3 Trivalent Chromium (CrIII)				I - Ice		U - Acetone	
				7196A/3060A Hexavalent Chromium (CrVI)				J - DI Water		V - MCAA	
				9050A/SatPaste_Prep Electrical Conductivity				K - EDTA		W - pH 4.5	
								L - EDA		Z - other (specify)	
								Other:			

Sample Identification - Client ID (Lab ID)				Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=solid, O=organic, B=biological, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	7196A_CR3 Trivalent Chromium (CrIII)	7196A/3060A Hexavalent Chromium (CrVI)	9050A/SatPaste_Prep Electrical Conductivity	Total Number of containers	Special Instructions/Note:
RC-BA-08 (280-95791-8)				4/11/17	12:50		Solid		X	X	X	2		
RC-BA-09 (280-95791-9)				4/11/17	12:40		Solid		X	X	X	2		
RC-BA-10 (280-95791-10)				4/11/17	12:30		Solid		X	X	X	2		
RC-BA-DUP01 (280-95791-11)				4/11/17	10:50		Solid		X	X	X	2	Loc: 280 95791	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyze & 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 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.

Possible Hazard Identification

Unconfirmed

Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2

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

Reinquished by: *TAKAMURA* Date/Time: *4/12/17* *1615* Company: *TAN* Received by: *[Signature]* Date/Time: *04-13-2017 09:45* Company: *TAN*

Reinquished by: _____ Date/Time: _____ Company: _____ Received by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: ☒ Yes ☐ No Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks: *4.1*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/OC Requirements: _____

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 280-95791-1

Login Number: 95791

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?	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.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	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: 280-95791-1

Login Number: 95791

List Number: 2

Creator: Dawson, Keith M

List Source: TestAmerica Nashville

List Creation: 04/13/17 06:54 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	

Stantec Analytical Validation Report/Checklist**Report No. 042817-EC-01**

Project Name: Chevron – Rangeley, CO	Project Number: 203720102	
Stantec Validator: Elizabeth Crowley	Laboratory: Test America – Denver, CO	
Date Validated: 04/27/17	Laboratory Project Number: 280-95791-1	
Sample Start-End Date: 04/11/17	Laboratory Report Date: 04/26/17	
Parameters Validated: Volatile Organic Compounds (VOC) by EPA SW 846 8260B, Poly Aromatic Hydrocarbons by 8270 SIM, Gasoline Range Organic Compounds (GRO) and Diesel Range Organic Compounds (DRO) by 8015C, Total Metals by 6010C, 6020A and 7471A, Sodium Adsorption Ratio and Soluble Metals by 20B, Hexavalent and Trivalent Chromium by 7196A, pH by 9045D, Electrical Conductivity by 9050A and Percent Moisture		
Associated Chain(s) of Custody – 280-394006.1 and 280-394006.2/11 solid field samples		
VALIDATION CRITERIA CHECK		
Validation Flags Applicable to this Review:		
U	The analyte was analyzed for, but not detected above the reported sample quantitation limit.	
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.	
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.	
B	The analyte was detected in the method, field and/or trip blank.	
1. Were all the analyses requested for the samples submitted with each COC completed by the lab?	Yes X	No
Comments: TEPH ORO analysis not conducted per client request 4/12/17.		
2. Did the laboratory identify any non-conformances related to the analytical result?	Yes	No X
Comments:		
3. Were sample Chain-of-Custody forms complete?	Yes X	No
Comments:		
4. Were samples received in good condition and at the appropriate temperature?	Yes X	No
Comments:		
5. Were sample holding times met?	Yes	No X
Comments: 9045D – the 15 minute method holding time was exceeded for all samples. Associated sample results flagged “J”. Reason Code – HT		
6. Were correct concentration units reported?	Yes X	No
Comments:		

7. Were detections found in laboratory blank samples?	Yes X	No
Comments: 6010C batch 369552 – Calcium = 23.4 mg/kg, Magnesium = 6.98 mg/kg and Copper = 0.371 mg/kg. Associated sample results greater than 10 times the blank concentration. No qualifying action required.		
8. Were detections found in field blank, equipment rinse blank, and/or trip blank samples?	Yes NA	No
Comments: No blank sample submitted.		
9. Were instrument calibrations within method criteria?	Yes NA	No
Comments: Level II data package – no data provided.		
10. Were surrogate recoveries within laboratory control limits?	Yes	No X
Comments: 8260C – 3 of 4 surrogate %Rs are above limits for RC-BA-02 and 2 of 4 surrogates are above limits for RC-BA-05. All associated sample results flagged “J”. 8015C GRO – surrogate %R below limits for RC-BA-05(74%) and RC-BA-07(68%). Associated result flagged “UJ”. 8015C DRO – Surrogate %R below limits for RC-BA-07(38%). Associated result flagged “J”. Surrogate %R above limits for C-BA-DUP01(133%). Associated result flagged “J”. Reason Code - SUR		
11. Were laboratory control sample recoveries within laboratory control limits?	Yes X	No
Comments:		
12. Were matrix spike recoveries within laboratory control limits?	Yes	No X
Comments: 8260C batch 369704 - %Rs below limits for Benzene(46%), Ethylbenzene(39%), Toluene(45%) and Xylene(41%). Associated RC-BA-01 results flagged “J-“ if positive or “UJ-“ if non-detect and are biased low. 6010C batch 369552 - %R below limits for Barium(11%). Associated RC-BA-01 results flagged “J- “ and is biased low. The %R is above limits for Chromium(148%). Associated RC-BA-01 result flagged “J+” and is biased high. Reason Code – MS		
13. Were RPDs within control limits?	Yes	No X
Comments: 8260C batch 369704 – matrix RPDs above ±20% limit for Benzene(106%), Ethylbenzene(107%), Toluene(105%) and Xylene(104%). All associated results flagged “J” if positive. Reason Code – MD		
14. Were dilutions required on any samples?	Yes	No

X			
Comments: No qualifying action required.			
15. Were Tentatively Identified Compounds (TIC) present?	Yes	No	
	X		
Comments: Sample results below the reporting limit do not possess the degree of qualitative or quantitative confidence required. The value may be a false positive and is an estimated value and is flagged "NJ". Reason Code – SQL			
16. Were organic system performance criteria met?	Yes	No	
			NA
Comments: Level II data package – no data provided.			
17. Were GC/MS internal standards within method criteria?	Yes	No	
		X	
Comments: The "Case Narrative" reports internal standard 1,4-DCB-d4 recovery below 50% for RC-BA-02, RC-BA-07 and RC-BA-08. Associated Benzene and Toluene results flagged "J" if positive or "UJ" if non-detect. Sample RC-BA-05 reported 3 internal standard %Rs below 50%. All associated sample results flagged "J" if positive or "UJ" if non-detect. Reason Code - IS			
18. Were inorganic system performance criteria met?	Yes	No	
			NA
Comments: No inorganic samples submitted.			
19. Were blind field duplicates collected? If so, discuss the precision (RPD) of the results.	Yes	No	
	X		
Duplicate Sample No.	Primary Sample No.		
RC-BA-DUP01	RC-BA-02		
Comments: All RPDS within limits.			
20. Were at least 10 percent of the hard copy results compared to the Electronic Data Deliverable Results?	Yes	No	Initials
	X		EAC
Comments:			
21. Other: Validation Limit	Yes	No	
	X		
Comments: All sample results validated at Level II.			
PRECISION, ACCURACY, METHOD COMPLIANCE AND COMPLETENESS ASSESSMENT			
Precision:	Acceptable	Unacceptable	Initials EAC
	X		
Comments: Data usable.			
Accuracy:	Acceptable	Unacceptable	Initials EAC
	X		

Comments: Data usable.			
Method Compliance:	Acceptable X	Unacceptable	Initials EAC
Comments:			
Completeness:	Acceptable X	Unacceptable	Initials EAC
Comments: The completeness goal of 90% was achieved.			

Appendix C

Crude Oil Sample Laboratory Analytical Report

April 26, 2017



Bethany Lucente
Stantec
2000 S Colorado Blvd
Suite 2-300
Denver, CO 80222

RE: RC4
Project Number: 203720102

Pace Analytical received 1 sample on March 27, 2017 for analysis labeled RC4-5038-FNG. Per client request, the following analyses were performed:

1. PAHs & Extended Alkylated Isomers
2. C3-C36-Whole Oil Molecular Characterization Gas Chromatography "Fingerprint" by GC/FID
3. C8-C40 Qualitative Molecular Characterization by GC/MS – full scan mode
4. Simulated Distillation
5. Oxygenated Gasoline Blending Agents by GC/MS – SIM Mode
6. Organic Lead Speciation by GC/ECD
7. C3-C12 Quantitative Molecular Characterization by GC/MS – full scan mode

The sample was performed in house under laboratory number **22131**.

Please call the lab at 412-826-5245, or you may email any questions or concerns to ruth.welsh@pacelabs.com regarding any analytical data reports.

Respectfully submitted,

Ruth Welsh

Ruth Welsh
Project Manager



**(C3-C36) Whole-Oil Molecular Characterization
Gas Chromatography "Fingerprint"
by GC/FID**

*Includes Semi-quantitative screening of over 90
gasoline range PIANO compounds*



**(C3-C12) Quantitative Molecular Characterization
by GC/MS - full scan mode**

***PIANO, Oxygenated Blending Agents, Lead Scavengers,
MMT & Thiophenes***



Client: Bethany Lucente
Stantec
2000 S. Colorado Blvd. Ste 2-300
Denver, CO

Project: RC4
Project #: 203720102
Collected by: Robert Gomez

Lab ID: 22131-1
Collected: 3/24/2017
Received:
Matrix: Product

Client ID: RC4-5038-FNG
Analyzed: 4/20/2017
Q Method: 041817.M

CONSTITUENTS	CLASS	ABBR.	ssRL mg/kg	RESULT mg/kg	QUALIFIER
Isopentane (2-Methylbutane)	I	IP	26.1	447.9	
1-Pentene	O	1P	26.1	26.1	U
2-Methyl-1-butene	O	2M1B	26.1	35.6	J
Pentane (nC5)	P	C5	26.1	1336.5	
trans-2-pentene	O	T2P	26.1	26.1	U
cis-2-pentene	O	C2P	26.1	26.1	U
2-Methyl-2-butene (t)	O	2M2B	26.1	26.1	U
2,2-Dimethylbutane (t)	I	22DMB	26.1	40.9	
Cyclopentane	N	CYP	26.1	231.7	
2,3-Dimethylbutane	I	23DMB	26.1	258.7	
2-Methylpentane	I	2MP	26.1	1201.7	
Methyl-tert-butyl ether (MTBE)	ADD	MTBE	26.1	26.1	U
3-Methylpentane	P	3MP	26.1	1019.4	
1-Hexene	O	1HX	26.1	26.1	U
Hexane (nC6)	P	C6	26.1	2597.8	
Di-isopropyl ether (DIPE)	ADD	DIPE	26.1	26.1	U
trans-2-hexene (t)	O	T2HE	26.1	26.1	U
2-Methyl-2-pentene (t)	O	2M2P	26.1	26.1	U
cis-2-hexene (t)	O	C2HE	26.1	26.1	U
cis-3-Methyl-2-pentene (t)	O	C3M2P	26.1	26.1	U
Ethyl-tert-butyl ether (ETBE)	ADD	ETBE	26.1	26.1	U
2,2-Dimethylpentane (t)	I	22DMP	26.1	31.9	J
Methylcyclopentane	N	MCYP	26.1	1336.6	
2,4-Dimethylpentane	I	24DMP	26.1	163.8	
1,2-Dichloroethane (EDC)	ADD	EDC	26.1	26.1	U
Benzene	A	B	26.1	1181.7	
3,3-Dimethylpentane (t)	I	33DMP	26.1	94.5	
Thiophene	S	THIO	26.1	26.1	U
Cyclohexane	N	CYH	26.1	2340.5	
2-Methylhexane	I	2MH	26.1	2508.4	
2,3-Dimethylpentane	I	23DMP	26.1	1014.2	
Tert-amyl methyl ether (TAME)	ADD	TAME	26.1	26.1	U



Client: Bethany Lucente
Stantec
2000 S. Colorado Blvd. Ste 2-300
Denver, CO

Project: RC4
Project #: 203720102
Collected by: Robert Gomez

Lab ID: 22131-1
Collected: 3/24/2017
Received:
Matrix: Product

Client ID: RC4-5038-FNG
Analyzed: 4/20/2017
Q Method: 041817.M

CONSTITUENTS	CLASS	ABBR.	ssRL mg/kg	RESULT mg/kg	QUALIFIER
3-Methylhexane	I	3MH	26.1	2728.3	
trans-1,3-Dimethylcyclopentane (t)	N	T13DMCYP	26.1	591.6	
cis-1,3-Dimethylcyclopentane (t)	N	C13DMCYP	26.1	177.2	
trans-1,2-Dimethylcyclopentane (t)	N	T12DMCYP	26.1	932.7	
2,2,4-Trimethylpentane (isooctane)	I	224TMP	26.1	180.4	
1-Heptene	O	1HP	26.1	26.1	U
Heptane (nC7)	P	C7	26.1	6889.6	
trans-2-heptene (t)	O	T2HP	26.1	26.1	U
Methylcyclohexane	N	MCYH	26.1	8383.1	
2,5-Dimethylhexane	I	25DMH	26.1	636.8	
2,2,3-Trimethylpentane	I	233TMP	26.1	147.5	
2,4-Dimethylhexane	I	24DMH	26.1	522.5	
2,3,4-Trimethylpentane	I	234TMP	26.1	55.2	
2,3,3-Trimethylpentane	I	233TMP	26.1	35.3	J
Toluene	A	T	26.1	4042.0	
2-Methylthiophene	S	2MTHIO	26.1	26.1	U
2,3-Dimethylhexane	I	23DMH	26.1	597.9	
3-Methylthiophene	S	3MTHIO	26.1	26.1	U
2-Methylheptane	I	2MHP	26.1	4629.4	
4-Methylheptane (t)	I	4MHP	26.1	924.0	
3-Methylheptane	I	3MHP	26.1	2219.5	
3-Ethylhexane	I	3EHX	26.1	890.9	
1,2-Dibromoethane (EDB)	ADD	EDB	26.1	26.1	U
1-Octene	O	1O	26.1	1055.3	
Octane (nC8)	P	C8	26.1	8088.7	
2,4-Dimethylheptane (t)	I	24DMHP	26.1	2698.5	
2,5-Dimethylheptane (t)	I	25DMHP	26.1	3344.8	
Ethylbenzene	A	EB	26.1	1490.3	
2-Ethylthiophene	S	2ETHIO	26.1	26.1	U
2,3-Dimethylheptane (t)	I	23DMHP	26.1	6532.4	
m-Xylene	A	MX	26.1	4607.3	
p-Xylene	A	PX	26.1	1219.6	



Client: Bethany Lucente
Stantec
2000 S. Colorado Blvd. Ste 2-300
Denver, CO

Project: RC4
Project #: 203720102
Collected by: Robert Gomez

Lab ID: 22131-1
Collected: 3/24/2017
Received:
Matrix: Product

Client ID: RC4-5038-FNG
Analyzed: 4/20/2017
Q Method: 041817.M

CONSTITUENTS	CLASS	ABBR.	ssRL mg/kg	RESULT mg/kg	QUALIFIER
4-Methyloctane (t)	I	4MO	26.1	1008.1	
2-Methyloctane (t)	I	2MO	26.1	1095.9	
3-Methyloctane (t)	I	3MO	26.1	2807.6	
Styrene	A	STRE	26.1	26.1	U
o-Xylene	A	OX	26.1	2169.1	
1-Nonene	O	1N	26.1	131.5	
Nonane (nC9)	P	C9	26.1	4563.6	
Isopropylbenzene (cumene)	A	IPROPB	26.1	452.3	
n-Propylbenzene	A	NPRPPB	26.1	747.9	
1-Methyl-3-ethylbenzene	A	1M3EB	26.1	1787.7	
1-Methyl-4-ethylbenzene	A	1M4EB	26.1	958.5	
1,3,5-Trimethylbenzene (mesitylene)	A	135TMB	26.1	1251.9	
1-Methyl-2-ethylbenzene	A	1M2EB	26.1	713.6	
1,2,4-Trimethylbenzene	A	124TMB	26.1	2826.7	
1-Decene	O	1D	26.1	244.5	
Decane (nC10)	P	C10	26.1	6496.0	
sec-Butylbenzene	A	SBUB	26.1	310.2	
1-Methyl-3-isopropylbenzene (m-cymene)	A	1M3IPROPE	26.1	422.5	
1-Methyl-4-isopropylbenzene (p-cymene)	A	1M4IPROPE	26.1	259.6	
Indane	A	IA	26.1	36.1	J
Indene	A	IE	26.1	26.1	U
1-Methyl-2-isopropylbenzene (o-cymene)	A	1M2IPROPE	26.1	70.3	
1-Methyl-3-propylbenzene	A	1M3PROPB	26.1	729.6	
1-Methyl-4-propylbenzene	A	1M4PROPB	26.1	340.3	
n-Butylbenzene	A	NBB	26.1	273.0	
1,3-Dimethyl-5-ethylbenzene	A	13DM5EB	26.1	572.0	
1,2-diethylbenzene	A	12DEB	26.1	87.1	
1-Methyl-2-propylbenzene	A	1M2PROPB	26.1	407.9	
1,4-Dimethyl-2-ethylbenzene	A	14DM2EB	26.1	358.4	
1,3-Dimethyl-4-ethylbenzene	A	13DM4EB	26.1	438.7	
1,2-Dimethyl-4-ethylbenzene	A	12DM4EB	26.1	551.8	
1,3-Dimethyl-2-ethylbenzene	A	13DM2EB	26.1	86.8	



Client: Bethany Lucente
Stantec
2000 S. Colorado Blvd. Ste 2-300
Denver, CO

Project: RC4
Project #: 203720102
Collected by: Robert Gomez

Lab ID: 22131-1
Collected: 3/24/2017
Received:
Matrix: Product
Client ID: RC4-5038-FNG
Analyzed: 4/20/2017
Q Method: 041817.M

CONSTITUENTS	CLASS	ABBR.	ssRL mg/kg	RESULT mg/kg	QUALIFIER
1,2-Dimethyl-3-ethylbenzene	A	12DM3EB	26.1	454.8	
Undecane (nC11)	P	C11	26.1	2856.0	
1,2,4,5-Tetramethylbenzene	A	1245TMB	26.1	260.3	
1,2,3,5-Tetramethylbenzene (t)	A	1235TMB	26.1	531.0	
n-Pentylbenzene	A	NPYB	26.1	71.4	
Naphthalene	A	N	26.1	447.3	
Benzothiophene	S	BTHIO	26.1	26.1	U
Dodecane (nC12)	P	C12	26.1	1765.0	
1,2,3,4-Tetramethylbenzene (t)	A	1234TMB	26.1	577.6	
MMT	ADD	MMT	26.1	26.1	U
2-Methylnaphthalene	A	2MN	26.1	641.2	
1-Methylnaphthalene	A	1MN	26.1	626.6	
1,2-Dichloroethane-d4 (RS)		84.02 %			
Toluene-d8 (RS)		125.86 %			
p-Bromofluorobenzene (RS)		116.82 %			

ssRL - Sample Specific Reporting Limit

Results listed as U would have been reported if present at or above the listed ssRL

J - Values greater than the ssRL but less than the PQL (3 x ssRL).

D - Secondary dilution performed

Q - Surrogate recovery limit exceedance

I - Matrix Interference

NC - Not calibrated

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
Pace Energy Services

US631

041817-4PROD.D & dilution 041817-4PROD.D



Supporting Quality Control Results



Client: Bethany Lucente
Stantec
2000 S. Colorado Blvd. Ste 2-300
Denver, CO 80222

Project: RC4
Project #: 203720102
Collected by:

Lab ID: 032517-BLK.D
Collected:
Received:
Matrix: Water
QC type: Method Blank
Analyzed: 3/25/2017
Q Method: 032317.M

CONSTITUENTS	ssRL	RESULT	
	ug/L	ug/L	QUAL
Isopentane (2-Methylbutane)	0.8	0.8	U
1-Pentene	0.8	0.8	U
2-Methyl-1-butene	0.8	0.8	U
Pentane (nC5)	0.8	0.8	U
trans-2-pentene	0.8	0.8	U
cis-2-pentene	0.8	0.8	U
2-Methyl-2-butene (t)	0.8	0.8	U
2,2-Dimethylbutane (t)	0.8	0.8	U
Cyclopentane	0.8	0.8	U
2,3-Dimethylbutane	0.8	0.8	U
2-Methylpentane	0.8	0.8	U
Methyl-tert-butyl ether (MTBE)	0.8	0.8	U
3-Methylpentane	0.8	0.8	U
1-Hexene	0.8	0.8	U
Hexane (nC6)	0.8	0.8	U
Di-isopropyl ether (DIPE)	0.8	0.8	U
trans-2-hexene (t)	0.8	0.8	U
2-Methyl-2-pentene (t)	0.8	0.8	U
cis-2-hexene (t)	0.8	0.8	U
cis-3-Methyl-2-pentene (t)	0.8	0.8	U
Ethyl-tert-butyl ether (ETBE)	0.8	0.8	U
2,2-Dimethylpentane (t)	0.8	0.8	U
Methylcyclopentane	0.8	0.8	U
2,4-Dimethylpentane	0.8	0.8	U
1,2-Dichloroethane (EDC)	0.8	0.8	U
Benzene	0.8	0.8	U
3,3-Dimethylpentane (t)	0.8	0.8	U
Thiophene	0.8	0.8	U
Cyclohexane	0.8	0.8	U
2-Methylhexane	0.8	0.8	U
2,3-Dimethylpentane	0.8	0.8	U
Tert-amyl methyl ether (TAME)	0.8	0.8	U



Client: Bethany Lucente
Stantec
2000 S. Colorado Blvd. Ste 2-300
Denver, CO 80222

Project: RC4
Project #: 203720102
Collected by:

Lab ID: 032517-BLK.D
Collected:
Received:
Matrix: Water
QC type: Method Blank
Analyzed: 3/25/2017
Q Method: 032317.M

CONSTITUENTS	ssRL	RESULT	
	ug/L	ug/L	QUAL
3-Methylhexane	0.8	0.8	U
trans-1,3-Dimethylcyclopentane (t)	0.8	0.8	U
cis-1,3-Dimethylcyclopentane (t)	0.8	0.8	U
trans-1,2-Dimethylcyclopentane (t)	0.8	0.8	U
2,2,4-Trimethylpentane (isooctane)	0.8	0.8	U
1-Heptene	0.8	0.8	U
Heptane (nC7)	0.8	0.8	U
trans-2-heptene (t)	0.8	0.8	U
Methylcyclohexane	0.8	0.8	U
2,5-Dimethylhexane	0.8	0.8	U
2,2,3-Trimethylpentane	0.8	0.8	U
2,4-Dimethylhexane	0.8	0.8	U
2,3,4-Trimethylpentane	0.8	0.8	U
2,3,3-Trimethylpentane	0.8	0.8	U
Toluene	0.8	0.8	U
2-Methylthiophene	0.8	0.8	U
2,3-Dimethylhexane	0.8	0.8	U
3-Methylthiophene	0.8	0.8	U
2-Methylheptane	0.8	0.8	U
4-Methylheptane (t)	0.8	0.8	U
3-Methylheptane	0.8	0.8	U
3-Ethylhexane	0.8	0.8	U
1,2-Dibromoethane (EDB)	0.8	0.8	U
1-Octene	0.8	0.8	U
Octane (nC8)	0.8	0.8	U
2,4-Dimethylheptane (t)	0.8	0.8	U
2,5-Dimethylheptane (t)	0.8	0.8	U
Ethylbenzene	0.8	0.8	U
2-Ethylthiophene	0.8	0.8	U
2,3-Dimethylheptane (t)	0.8	0.8	U
m-Xylene	0.8	0.8	U
p-Xylene	0.8	0.8	U



Client: Bethany Lucente
Stantec
2000 S. Colorado Blvd. Ste 2-300
Denver, CO 80222

Project: RC4
Project #: 203720102
Collected by:

Lab ID: 032517-BLK.D
Collected:
Received:
Matrix: Water
QC type: Method Blank
Analyzed: 3/25/2017
Q Method: 032317.M

CONSTITUENTS	ssRL	RESULT	
	ug/L	ug/L	QUAL
4-Methyloctane (t)	0.8	0.8	U
2-Methyloctane (t)	0.8	0.8	U
3-Methyloctane (t)	0.8	0.8	U
Styrene	0.8	0.8	U
o-Xylene	0.8	0.8	U
1-Nonene	0.8	0.8	U
Nonane (nC9)	0.8	0.8	U
Isopropylbenzene (cumene)	0.8	0.8	U
n-Propylbenzene	0.8	0.8	U
1-Methyl-3-ethylbenzene	0.8	0.8	U
1-Methyl-4-ethylbenzene	0.8	0.8	U
1,3,5-Trimethylbenzene (mesitylene)	0.8	0.8	U
1-Methyl-2-ethylbenzene	0.8	0.8	U
1,2,4-Trimethylbenzene	0.8	0.8	U
1-Decene	0.8	0.8	U
Decane (nC10)	0.8	0.8	U
sec-Butylbenzene	0.8	0.8	U
1-Methyl-3-isopropylbenzene (m-cymene)	0.8	0.8	U
1-Methyl-4-isopropylbenzene (p-cymene)	0.8	0.8	U
Indane	0.8	0.8	U
Indene	0.8	0.8	U
1-Methyl-2-isopropylbenzene (o-cymene)	0.8	0.8	U
1-Methyl-3-propylbenzene	0.8	0.8	U
1-Methyl-4-propylbenzene	0.8	0.8	U
n-Butylbenzene	0.8	0.8	U
1,3-Dimethyl-5-ethylbenzene	0.8	0.8	U
1,2-diethylbenzene	0.8	0.8	U
1-Methyl-2-propylbenzene	0.8	0.8	U
1,4-Dimethyl-2-ethylbenzene	0.8	0.8	U
1,3-Dimethyl-4-ethylbenzene	0.8	0.8	U
1,2-Dimethyl-4-ethylbenzene	0.8	0.8	U
1,3-Dimethyl-2-ethylbenzene	0.8	0.8	U



Client: Bethany Lucente
Stantec
2000 S. Colorado Blvd. Ste 2-300
Denver, CO 80222

Project: RC4
Project #: 203720102
Collected by:

Lab ID: 032517-BLK.D
Collected:
Received:
Matrix: Water
QC type: Method Blank
Analyzed: 3/25/2017
Q Method: 032317.M

CONSTITUENTS	ssRL	RESULT	
	ug/L	ug/L	QUAL
1,2-Dimethyl-3-ethylbenzene	0.8	0.8	U
Undecane (nC11)	0.8	0.8	U
1,2,4,5-Tetramethylbenzene	0.8	0.8	U
1,2,3,5-Tetramethylbenzene (t)	0.8	0.8	U
n-Pentylbenzene	0.8	0.8	U
Naphthalene	0.8	0.8	U
Benzo thiophene	0.8	0.8	U
Dodecane (nC12)	0.8	0.8	U
1,2,3,4-Tetramethylbenzene (t)	0.8	0.8	U
MMT	0.8	0.8	U
2-Methylnaphthalene	0.8	0.8	U
1-Methylnaphthalene	0.8	0.8	U
1,2-Dichloroethane-d4 (RS) %		106	
Toluene-d8 (RS) %		116	
p-Bromofluorobenzene (RS) %		95	

ssRL - Sample Specific Reporting Limit

Results listed as U would have been reported if present at or above the listed ssRL

B - Exceeds PQL - 3 x ssRL

Q - Surrogate recovery limit exceedance

NC - Not calibrated

J - Values greater than the ssRL but less than the PQL.

Note: Extracted by EPA 5030 (Purge and Trap).

US631
032517-BLK.D

Submitted by,
Pace Energy Services



Client: Bethany Lucente
 Stantec
 2000 S. Colorado Blvd. Ste 2-300
 Denver, CO 80222

Project: RC4
Project #: 203720102
Collected by:

Lab ID: 032617-2 WATER.D & 032617-3 WATER.D
Collected:
Received:
Matrix: Product
QC type: DUP
Analyzed:
Q Method: 032317.M

CONSTITUENTS	21880-5 50X 20ppb IS/SS	21880-5 DUP 50X 20ppb IS/SS	Passing Diff.	Actual Diff.	QUAL
	RESULT mg/kg	RESULT mg/kg	%	%	
Isopentane (2-Methylbutane)	301.1	346.0	30	13.0	
1-Pentene	U	U	30		
2-Methyl-1-butene	64.0	70.8	30	9.5	
Pentane (nC5)	215.3	235.0	30	8.4	
trans-2-pentene	U	U	30		
cis-2-pentene	U	U	30		
2-Methyl-2-butene (t)	306.1	377.9	30	19.0	
2,2-Dimethylbutane (t)	U	U	30		
Cyclopentane	207.7	268.7	30	22.7	
2,3-Dimethylbutane	39.6	45.2	30	12.4	
2-Methylpentane	62.7	74.6	30	16.0	
Methyl-tert-butyl ether (MTBE)	133.4	160.2	30	16.7	
3-Methylpentane	33.5	36.5	30	8.3	
1-Hexene	U	U	30		
Hexane (nC6)	U	25.4	30		
Di-isopropyl ether (DIPE)	U	U	30		
trans-2-hexene (t)	U	U	30		
2-Methyl-2-pentene (t)	33.6	46.8	30	28.2	
cis-2-hexene (t)	U	U	30		
cis-3-Methyl-2-pentene (t)	U	27.2	30		
Ethyl-tert-butyl ether (ETBE)	U	U	30		
2,2-Dimethylpentane (t)	U	U	30		
Methylcyclopentane	201.2	213.9	30	5.9	
2,4-Dimethylpentane	U	U	30		
1,2-Dichloroethane (EDC)	U	U	30		
Benzene	2582.5	2941.9	30	12.2	
3,3-Dimethylpentane (t)	U	U	30		
Thiophene	29.2	40.8	30	28.6	
Cyclohexane	68.8	85.6	30	19.6	
2-Methylhexane	U	U	30		
2,3-Dimethylpentane	U	U	30		
Tert-amyl methyl ether (TAME)	U	U	30		
3-Methylhexane	U	U	30		
trans-1,3-Dimethylcyclopentane (t)	U	U	30		
cis-1,3-Dimethylcyclopentane (t)	U	U	30		



Client: Bethany Lucente
 Stantec
 2000 S. Colorado Blvd. Ste 2-300
 Denver, CO 80222

Project: RC4
Project #: 203720102
Collected by:

Lab ID: 032617-2 WATER.D & 032617-3 WATER.D
Collected:
Received:
Matrix: Product
QC type: DUP
Analyzed:
Q Method: 032317.M

CONSTITUENTS	21880-5 50X 20ppb IS/SS	21880-5 DUP 50X 20ppb IS/SS	Passing Diff.	Actual Diff.	QUAL
	RESULT mg/kg	RESULT mg/kg	%	%	
trans-1,2-Dimethylcyclopentane (t)	U	U	30		
2,2,4-Trimethylpentane (isooctane)	U	U	30		
1-Heptene	U	U	30		
Heptane (nC7)	U	U	30		
trans-2-heptene (t)	U	U	30		
Methylcyclohexane	63.4	66.0	30	3.9	
2,5-Dimethylhexane	U	U	30		
2,2,3-Trimethylpentane	U	U	30		
2,4-Dimethylhexane	U	U	30		
2,3,4-Trimethylpentane	U	U	30		
2,3,3-Trimethylpentane	U	U	30		
Toluene	814.8	926.4	30	12.0	
2-Methylthiophene	U	U	30		
2,3-Dimethylhexane	U	U	30		
3-Methylthiophene	U	U	30		
2-Methylheptane	U	U	30		
4-Methylheptane (t)	U	U	30		
3-Methylheptane	U	U	30		
3-Ethylhexane	U	U	30		
1,2-Dibromoethane (EDB)	U	U	30		
1-Octene	U	U	30		
Octane (nC8)	U	U	30		
2,4-Dimethylheptane (t)	U	U	30		
2,5-Dimethylheptane (t)	U	U	30		
Ethylbenzene	918.8	1044.0	30	12.0	
2-Ethylthiophene	U	U	30		
2,3-Dimethylheptane (t)	U	U	30		
m-Xylene	2650.6	2708.6	30	2.1	
p-Xylene	1446.0	1515.5	30	4.6	
4-Methyloctane (t)	U	U	30		
2-Methyloctane (t)	U	U	30		
3-Methyloctane (t)	U	U	30		
Styrene	U	U	30		
o-Xylene	1022.5	1178.8	30	13.3	
1-Nonene	U	U	30		



Client: Bethany Lucente
 Stantec
 2000 S. Colorado Blvd. Ste 2-300
 Denver, CO 80222

Project: RC4
Project #: 203720102
Collected by:

Lab ID: 032617-2 WATER.D & 032617-3 WATER.D
Collected:
Received:
Matrix: Product
QC type: DUP
Analyzed:
Q Method: 032317.M

CONSTITUENTS	21880-5 50X 20ppb IS/SS	21880-5 DUP 50X 20ppb IS/SS	Passing Diff. %	Actual Diff. %	QUAL
	RESULT mg/kg	RESULT mg/kg			
Nonane (nC9)	96.0	80.3	30	19.5	
Isopropylbenzene (cumene)	54.0	59.2	30	8.8	
n-Propylbenzene	132.6	147.4	30	10.1	
1-Methyl-3-ethylbenzene	391.1	441.8	30	11.5	
1-Methyl-4-ethylbenzene	309.6	329.7	30	6.1	
1,3,5-Trimethylbenzene (mesitylene)	325.9	365.9	30	10.9	
1-Methyl-2-ethylbenzene	184.5	213.2	30	13.5	
1,2,4-Trimethylbenzene	1109.8	1271.8	30	12.7	
1-Decene	U	U	30		
Decane (nC10)	U	U	30		
sec-Butylbenzene	U	U	30		
1-Methyl-3-isopropylbenzene (m-cymene)	U	U	30		
1-Methyl-4-isopropylbenzene (p-cymene)	U	U	30		
Indane	410.8	448.0	30	8.3	
Indene	U	U	30		
1-Methyl-2-isopropylbenzene (o-cymene)	U	U	30		
1-Methyl-3-propylbenzene	35.7	37.8	30	5.4	
1-Methyl-4-propylbenzene	U	27.1	30		
n-Butylbenzene	U	U	30		
1,3-Dimethyl-5-ethylbenzene	67.0	66.8	30	0.2	
1,2-diethylbenzene	U	U	30		
1-Methyl-2-propylbenzene	34.7	35.7	30	2.7	
1,4-Dimethyl-2-ethylbenzene	50.5	56.1	30	9.9	
1,3-Dimethyl-4-ethylbenzene	43.3	42.6	30	1.8	
1,2-Dimethyl-4-ethylbenzene	119.2	128.5	30	7.2	
1,3-Dimethyl-2-ethylbenzene	U	U	30		
1,2-Dimethyl-3-ethylbenzene	U	25.5	30		
Undecane (nC11)	U	U	30		
1,2,4,5-Tetramethylbenzene	77.6	80.9	30	4.2	
1,2,3,5-Tetramethylbenzene (t)	77.5	79.3	30	2.2	
n-Pentylbenzene	U	U	30		
Naphthalene	442.5	470.7	30	6.0	
Benzothiophene	U	U	30		
Dodecane (nC12)	64.2	52.2	30	23.0	
1,2,3,4-Tetramethylbenzene (t)	47.5	50.7	30	6.2	



Client: Bethany Lucente
Stantec
2000 S. Colorado Blvd. Ste 2-300
Denver, CO 80222

Project: RC4
Project #: 203720102
Collected by:

Lab ID: 032617-2 WATER.D & 032617-3 WATER.D
Collected:
Received:
Matrix: Product
QC type: DUP
Analyzed:
Q Method: 032317.M

CONSTITUENTS	21880-5 50X 20ppb IS/SS	21880-5 DUP 50X 20ppb IS/SS	Passing Diff. Actual Diff.		QUAL
	RESULT mg/kg	RESULT mg/kg	%	%	
MMT	U	U	30		
2-Methylnaphthalene	30.6	33.5	30	8.5	
1-Methylnaphthalene	25.5	U	30		
1,2-Dichloroethane-d4 (RS) (%)	99	117	30	15.5	
Toluene-d8 (RS) (%)	116	117	30	0.7	
p-Bromofluorobenzene (RS) (%)	99	101	30	2.3	

ssRL - Sample Specific Reporting Limit

Results listed as U would have been reported if present at or above the listed ssRL

QD - Exceeds RSD limit

Q - Surrogate recovery limit exceedance

NC - Not calibrated

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
Pace Energy Services

US631
032517-BLK.D



Client: Bethany Lucente
Stantec
2000 S. Colorado Blvd. Ste 2-300
Denver, CO 80222

Project: RC4
Project #: 203720102
Collected by:

Lab ID: 032617-LCS25.D

Collected:

Received:

Matrix: Water

QC type: LCS

Analyzed: 3/25/2017

Q Method: 032317.M

CONSTITUENTS	RESULT ug/L	Recovery %	Spike Conc. ug/L	QUAL
1-Pentene	26.7	106.8	25.0	
Pentane (nC5)	30.5	122.0	25.0	
Cyclopentane	25.9	103.8	25.0	
1-Hexene	28.3	113.1	25.0	
Hexane (nC6)	29.7	118.7	25.0	
Di-isopropyl ether (DIPE)	28.9	115.5	25.0	
Ethyl-tert-butyl ether (ETBE)	24.7	98.8	25.0	
2,4-Dimethylpentane	33.1	132.4	25.0	
Benzene	23.7	95.0	25.0	
Cyclohexane	30.1	120.3	25.0	
Tert-amyl methyl ether (TAME)	26.7	106.6	25.0	
2,2,4-Trimethylpentane (isooctane)	28.1	112.5	25.0	
Heptane (nC7)	32.7	130.6	25.0	
Toluene	27.2	108.6	25.0	
Octane (nC8)	27.7	110.6	25.0	
Ethylbenzene	27.3	109.2	25.0	
m-Xylene	23.0	92.1	25.0	
p-Xylene	17.6	70.4	25.0	
o-Xylene	25.7	102.8	25.0	
Nonane (nC9)	23.7	94.6	25.0	
n-Propylbenzene	25.9	103.4	25.0	
1,3,5-Trimethylbenzene (mesitylene)	24.8	99.4	25.0	
1-Decene	19.7	78.7	25.0	
Decane (nC10)	25.3	101.2	25.0	
n-Butylbenzene	26.6	106.4	25.0	
n-Pentylbenzene	34.5	138.1	25.0	
Dodecane (nC12)	80.6	128.9	62.5	
1,2-Dichloroethane-d4 (RS)		109		
Toluene-d8 (RS)		118		
p-Bromofluorobenzene (RS)		102		

ssRL - Sample Specific Reporting Limit

NC - Not calibrated

Q - Surrogate recovery limit exceedance

LQ - Percent difference exceedance (50 - 140)

I - Matrix Interference

Note: Extracted by EPA 5030 (Purge and Trap).

US631

**Submitted by,
Pace Energy Services**

032617-LCS25.D



Client: Bethany Lucente
Stantec
2000 S. Colorado Blvd. Ste 2-300
Denver, CO 80222

Project: RC4
Project #: 203720102
Collected by:

Lab ID: 032617-LCSD25.D
Collected:
Received:
Matrix: Water
QC type: LCSD
Analyzed: 3/25/2017
Q Method: 032317.M

CONSTITUENTS	RESULT ug/L	Recovery %	Spike Conc. ug/L	RPD %	QUAL
1-Pentene	30.9	123.8	25.0	14.7	
Pentane (nC5)	32.6	130.5	25.0	6.7	
Cyclopentane	26.0	103.9	25.0	0.1	
1-Hexene	27.6	110.6	25.0	2.3	
Hexane (nC6)	29.1	116.2	25.0	2.1	
Di-isopropyl ether (DIPE)	30.5	121.8	25.0	5.3	
Ethyl-tert-butyl ether (ETBE)	25.7	102.6	25.0	3.8	
2,4-Dimethylpentane	32.1	128.3	25.0	3.1	
Benzene	24.6	98.6	25.0	3.7	
Cyclohexane	30.3	121.2	25.0	0.8	
Tert-amyl methyl ether (TAME)	26.1	104.4	25.0	2.1	
2,2,4-Trimethylpentane (isooctane)	25.0	100.0	25.0	11.7	
Heptane (nC7)	30.2	120.6	25.0	7.9	
Toluene	26.9	107.5	25.0	1.1	
Octane (nC8)	28.3	113.0	25.0	2.1	
Ethylbenzene	26.8	107.4	25.0	1.7	
m-Xylene	23.4	93.4	25.0	1.4	
p-Xylene	17.9	71.4	25.0	1.4	
o-Xylene	25.3	101.0	25.0	1.7	
Nonane (nC9)	20.7	82.8	25.0	13.3	
n-Propylbenzene	25.4	101.4	25.0	2.0	
1,3,5-Trimethylbenzene (mesitylene)	24.5	97.8	25.0	1.5	
1-Decene	18.3	73.2	25.0	7.2	
Decane (nC10)	22.8	91.2	25.0	10.4	
n-Butylbenzene	25.7	103.0	25.0	3.3	
n-Pentylbenzene	32.9	131.5	25.0	4.9	
Dodecane (nC12)	80.5	128.7	62.5	0.2	
1,2-Dichloroethane-d4 (RS)		115			
Toluene-d8 (RS)		119			
p-Bromofluorobenzene (RS)		103			

ssRL - Sample Specific Reporting Limit

Q - Surrogate recovery limit exceedance

I - Matrix Interference

US631

032617-LCSD25.D

NC - Not calibrated

RQ - Percent difference exceeded (15)

LQ - Percent difference exceedance (50 - 140)

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,
Pace Energy Services



Client: Bethany Lucente
 Stantec
 2000 S. Colorado Blvd. Ste 2-300
 Denver, CO 80222

Project: RC4
Project #: 203720102
Collected by:

Lab ID: 030617-QC.D & 030617-QC1.D

Collected:

Received:

Matrix: Product/Soil

QC type: NIST SRM 2295

Analyzed:

Q Method: 032317.M

CONSTITUENTS	RESULT mg/kg	ssRL mg/kg	D Flag	NIST Result mg/kg	Passing Diff. %	Actual Diff. %	QUAL
1-Pentene	7980.1	53.2		7400.0	40	7.5	
Pentane (nC5)	40002.4	252.5	D	35700.0	40	11.4	
Methyl-tert-butyl ether (MTBE)	120082.8	252.5	D	145400.0	40	19.1	
Hexane (nC6)	30693.5	252.5	D	37000.0	40	18.6	
2,4-Dimethylpentane	69060.1	252.5	D	79000.0	40	13.4	
Benzene	10886.3	53.2		9900.0	40	9.5	
Thiophene	273.4	53.2		260.0	40	5.0	
Cyclohexane	72607.1	252.5	D	88400.0	40	19.6	
2,2,4-Trimethylpentane (isooctane)	127998.0	252.5	D	118000.0	40	8.1	
1-Heptene	18227.3	252.5	D	15000.0	40	19.4	
Heptane (nC7)	90861.6	252.5	D	77700.0	40	15.6	
Toluene	85225.8	252.5	D	78900.0	40	7.7	
3-Methylthiophene	390.8	53.2		300.0	40	26.3	
Octane (nC8)	86675.3	252.5	D	79800.0	40	8.3	
Ethylbenzene	22493.6	252.5	D	19600.0	40	13.7	
m,p-Xylenes	64241.2	505.1	D	58700.0	40	9.0	
o-Xylene	21111.9	252.5	D	19700.0	40	6.9	
1,3,5-Trimethylbenzene (mesitylene)	19838.3	252.5	D	19700.0	40	0.7	
1,2,4-Trimethylbenzene	19445.4	252.5	D	20010.0	40	2.9	
Decane (nC10)	41.9	53.2		41400.0	40	199.6	SQ
1,2,4,5-Tetramethylbenzene	10082.8	53.2		9600.0	40	4.9	
Naphthalene	10363.0	53.2		11500.0	40	10.4	
Benzothiophene	352.5	53.2		440.0	40	22.1	
1,2-Dichloroethane-d4 (RS) %	112						
Toluene-d8 (RS) %	114						
p-Bromofluorobenzene (RS) %	115						

ssRL - Sample Specific Reporting Limit

D - Secondary dilution performed

Q - Surrogate recovery limit exceedance

SQ - SRM percent difference exceeded

I - Matrix Interference

NC - Not calibrated

Note: Extracted by EPA 5030 (Purge and Trap).

Submitted by,

US631

Pace Energy Services

030617-QC.D & 030617-QC1.D



**Oxygenated Gasoline Blending Agents
by GC/MS - SIM mode**

MtBE, DIPE, EtBE, tAME, tBA, and ethanol

REPORT OF ANALYTICAL RESULTS

Client: Bethany Lucente
Stantec
2000 S Colorado Blvd
Denver, CO 80222

Lab Number: 22131-1
Collected: 3/24/2017
Received: 3/27/2017
Matrix: Product

Project: RC4

Project Number: 203720102
Collected by: Roberto Gomez

Sample Description: RC4-5038-FNG

Analyzed: 4/5/2017
Method: EPA 1624 GC/MS

CONSTITUENT	PQL* mg/Kg	RESULT** mg/Kg
t-Amyl Methyl Ether (TAME)	100	ND
t-Butyl Alcohol (TBA)	10	ND
Diisopropyl Ether (DIPE)	100	ND
Ethanol	10	ND
Ethyl-t-Butyl Ether (ETBE)	50	ND
Methyl-t-Butyl Ether (MTBE)	50	ND
Percent Surrogate Recovery (1,4-difluorobenzene)		94

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

J: value below PQL

22131-1.oxy.xls
RL



**Organic Lead Speciation
by GC/ECD**

***EDB, TML, TMEL, DMDEL, MTEL, TEL
& MMT***

REPORT OF ANALYTICAL RESULTS

Client: Bethany Lucente
Stantec
2000 S Colorado Blvd
Denver, CO 80222

Lab Number: 22131
Collected: 3/24/2017
Received: 3/27/2017
Matrix: Product

Project: RC4
Project Number: 203720102
Collected by: -

Sample Description: See Below
Analyzed: 4/17/2017
Method: GC/ECD

EDB and ORGANIC LEAD SPECIATION

LAB NUMBER	SAMPLE DESCRIPTION	EDB mg/L	TML mg/L	TMEL mg/L	DMDEL mg/L	MTEL mg/L	TEL mg/L	MMT mg/L
22131-1	RC4-5038-FNG	<0.5	<5	<5	<5	<5	<5	<5
Detection Limit:		0.5	5.0	5.0	5.0	5.0	5.0	5.0
Method Blank:		<0.5	<5	<5	<5	<5	<5	<5

EDB: Ethylene Dibromide
TML: Tetramethyl Lead
TMEL: Trimethylethyl Lead
DMDEL: Dimethyldiethyl Lead
MTEL: Methyltriethyl Lead
TEL: Tetraethyl Lead
MMT: Methylcyclopentadienyl Manganese Tricarbonyl

22131e.xls
RL

QUALITY ASSURANCE REPORT

Client: Bethany Lucente
Stantec
2000 S Colorado Blvd
Denver, CO 80222

Lab Number: 22131
Analyzed: 4/17/2017
Method: GC/ECD

QA DATA FOR EDB and TEL

ANALYTES	RF	RF _D	%D	ACCEPTANCE
				LIMIT %
EDB	0.684	1	0.50	±15
TEL	0.038	0	13.50	±15

EDB: Ethylene Dibromide

TEL: Tetraethyl Lead

RF = Mean response factor from 3 point calibration

RF_D = Daily calibration standard response factor

% D = % Difference

Calibration file: ORG07168.M / MMT07168.M

22131e.xls
RL



**PAHs & Extended Akylated Isomers
by GC/MS - SIM mode**

*PAHs, alkylatedPAHs, sulfurPAHs - Parent,
Individual Isomers, and Homologous Series*

REPORT OF ANALYTICAL RESULTS
PAGE1



Client: Bethany Lucente
Stantec
2000 S Colorado Blvd, Ste 2-300
Denver CO 80222

Lab Number: 22131-1
Collected: 3/24/2017
Received: 3/27/2017
Matrix: Product

Project: RC4

Sample Description: RC4-5038-FNG

Project Number: 203720102
Collected by: Roberto Gomez

Analyzed: 4/19/2017
Method: FORGSIM2016_GAIN2.M

CONSTITUENT	ssRL mg/kg	RESULT mg/kg	QUALIFIER
Decalin (cis)	7.500	1707.000	
Decalin (trans)	7.500	91.000	
C1 Decalin	7.500	2562.250	
C2 decalin	7.500	2278.000	
C3 decalin	7.500	1291.500	
C4 Decalin	7.500	519.250	
Benzothiophene	7.500	7.500	U
C1 Benzothiophene	7.500	122.000	
C2 Benzothiophene	7.500	423.250	
C3 Benzothiophene	7.500	400.000	
C4 Benzothiophene	7.500	336.000	
Naphthalene	7.500	741.500	
2-methyl naphthalene	7.500	1169.250	
1-methyl naphthalene	7.500	1021.250	
C2 naphthalene	7.500	2598.250	
C3 Naphthalene	7.500	2275.000	
C4 Naphthalene	7.500	1617.250	
Biphenyl	7.500	395.250	
Acenaphthylene	7.500	7.500	U
Acenaphthene	7.500	7.500	U
Dibenzofuran	7.500	113.500	
Fluorene	7.500	64.250	
C1 Fluorene	7.500	249.750	
C2 Fluorene	7.500	504.750	
C3 Fluorene	7.500	591.750	
Dibenzothiophene	7.500	430.500	
C1 Dibenzothiophene	7.500	422.500	
C2 Dibenzothiophene	7.500	717.500	
C3 Dibenzothiophene	7.500	610.250	
C4 Dibenzothiophene	7.500	537.250	
Phenanthrene	7.500	259.750	
Anthracene	7.500	7.500	U
C1 Phenanthrene	7.500	679.750	
C2 Phenanthrene	7.500	943.500	
C3 Phenanthrene	7.500	740.750	
C4 Phenanthrene	7.500	319.750	
Fluoranthene	7.500	11.750	J
Pyrene	7.500	13.250	J
C1 Fluoranthenes/Pyrenes	7.500	77.000	
C2 Fluoranthenes/Pyrenes	7.500	129.750	
C3 Fluoranthenes/Pyrenes	7.500	205.500	
Benz(a)anthracene	7.500	7.500	U
Chrysene	7.500	64.000	
C1 Chrysene	7.500	125.750	

REPORT OF ANALYTICAL RESULTS
PAGE2



Client: Bethany Lucente
Stantec
2000 S Colorado Blvd, Ste 2-300
Denver CO 80222

Lab Number: 22131-1
Collected: 3/24/2017
Received: 3/27/2017
Matrix: Product

Project: RC4

Sample Description: RC4-5038-FNG

Project Number: 203720102
Collected by: Roberto Gomez

Analyzed: 4/19/2017
Method: FORGSIM2016_GAIN2.M

CONSTITUENT	ssRL mg/kg	RESULT mg/kg	QUALIFIER
C2 Chrysene	7.500	180.750	
C3 Chrysene	7.500	156.000	
C4 Chrysene	7.500	75.500	
Benzo(b)fluoranthene	7.500	7.500	U
Benzo(k)fluoranthene	7.500	7.500	U
Benzo(e)pyrene	7.500	24.000	
Benzo(a)pyrene	7.500	7.500	U
Perylene	7.500	7.500	U
Indeno(1,2,3,cd)pyrene	7.500	7.500	U
Dibenz(a,h)anthracene	7.500	7.500	U
Benzo(g,h,i)perylene	7.500	7.500	U

ssRL - Sample Specific Reporting Limit.

D - Secondary dilution performed.

B - Analyte detected in the blank at levels greater than the PQL - probable lab contamination.

J - Values greater than the ssRL of 0.03 ug/L but less than the PQL.

U - Not Detected

Note: Analyzed in the Selected Ion Monitoring (SIM) mode.

Submitted by,
Pace Energy Services

PAHFull Scan
22131-1_PAH_Report.xls
041917-10.D & 041917-10.D

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: <u>Stantec</u>		Report To: <u>Bethany Lucante @ Stantec.com</u>		Attention:	
Address: <u>2000 S Colorado Blvd</u>		Copy To: <u>Tom.Madsen @ Stantec.com</u>		Company Name:	
Email To: <u>Suite 2-300 Denver, CO</u>				Address:	
Phone: <u>303 758 4825</u>		Purchase Order No.: <u>203720102</u>		Pace Quote Reference:	
Fax:		Project Name: <u>RC4</u>		Pace Project Manager:	
Requested Due Date/TAT: <u>Normal</u>		Project Number: <u>203720102</u>		Pace Profile #:	

Page: 1 of 1

003681

REGULATORY AGENCY

NPDES ☒ GROUND WATER ☒ DRINKING WATER ☒

UST ☐ RCRA ☐ OTHER ☐

Site Location ☐

STATE: ☐

ITEM #	Section D Required Client Information		Matrix Codes MATRIX / CODE		COLLECTED				SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Section D Required Client Information	Matrix Codes MATRIX / CODE	COMPOSITE START	COMPOSITE END/GRAB	DATE	TIME	DATE	TIME									
1	SAMPLE ID (A-Z, 0-9 /, -) Sample IDs MUST BE UNIQUE	DW Drinking Water WT Waste Water WW Waste Water P Product SL Soil/Solid OL Oil WP Wipe AR Air TS Tissue OT Other															
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

Temp in °C	Received on ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
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Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07. 15-May-2007

Cooler Receipt Form

Client Name: Stantec Project: RC4 Lab Work Order: 22131

A. Shipping/Container Information (circle appropriate response)

Courier: FedEx UPS USPS Client Other: _____ Air bill Present: Yes No

Tracking Number: J 2242469298

Custody Seal on Cooler/Box Present: Yes No Seals Intact: Yes No

Cooler/Box Packing Material: Bubble Wrap Absorbent Foam Other: _____

Type of Ice: Wet Blue None Ice Intact: Yes Melted

Cooler Temperature: 2°C Radiation Screened: Yes No Chain of Custody Present: Yes No

Comments: _____

B. Laboratory Assignment/Log-in (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	<u>✓</u>			
Chain of Custody relinquished	<u>✓</u>			
Sampler Name & Signature on COC	<u>✓</u>			
Containers intact	<u>✓</u>			
Were samples in separate bags	<u>✓</u>			
Sample container labels match COC	<u>✓</u>			
Sample name/date and time collected	<u>✓</u>			
Sufficient volume provided	<u>✓</u>			
PAES containers used	<u>✓</u>			
Are containers properly preserved for the requested testing? (as labeled)			<u>✓</u>	
If an unknown preservation state, were containers checked? Exception: VOA's coliform			<u>✓</u>	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			<u>✓</u>	

Comments: _____

Cooler contents examined/received by: LY Date: 3.27.17

Project Manager Review: CM Date: 3/27/17