

Technical Report for

Renegade Oil & Gas

126 B7

SGS Accutest Job Number: D96256

Sampling Date: 07/31/17

Report to:

Renegade Oil & Gas
6155 S. Main Street
Aurora, CO 80016
jbcrog@aol.com; wrico2@kci.net

ATTN: JB Condill

Total number of pages in report: 49



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Scott Heideman
Laboratory Director

Client Service contact: Cristina Araujo 303-425-6021

Certifications: CO (CO00049), ID (CO00049), NE (NE-OS-06-04), ND (R-027), NJ (CO007), OK (D9942)
UT (NELAP CO00049), LA (LA150028), TX (T104704511), WY (8TMS-L)

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Test results relate only to samples analyzed.

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Sample Summary

Renegade Oil & Gas

Job No: D96256

126 B7

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
D96256-1	07/31/17	12:00 CB	07/31/17	SO	Soil	WEST
D96256-1A	07/31/17	12:00 CB	07/31/17	SO	Soil	WEST
D96256-2	07/31/17	12:00 CB	07/31/17	SO	Soil	EAST
D96256-2A	07/31/17	12:00 CB	07/31/17	SO	Soil	EAST

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Renegade Oil & Gas

Job No D96256

Site: 126 B7

Report Date 8/14/2017 2:03:35 PM

On 07/31/2017, 2 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at SGS Accutest Mountain States (SAMS) at a temperature of 30.1 °C. The samples were intact and properly preserved, unless noted below. An SAMS Job Number of D96256 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: SO

Batch ID: V5V2386

- All samples were analyzed within the recommended method holding time.
- Sample(s) D96117-7MS, D96117-7MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix: SO

Batch ID: V5V2387

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D96343-1MS, D96343-1MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8015B

Matrix: SO

Batch ID: GGB2036

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D96247-10MS, D96247-10MSD were used as the QC samples indicated.

Extractables by GC By Method SW846-8015B

Matrix: SO

Batch ID: OP15328

- All samples were extracted and analyzed within the recommended method holding time.
- Sample(s) D96256-2MS, D96256-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- The matrix spike (MS) recovery(s) of TPH-DRO (C10-C28) are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- Sample(s) D96256-2, OP15328-MSD have surrogates outside control limits. Probable cause due to matrix interference.
- D96256-2 for o-Terphenyl: Outside control limits due to dilution.
- OP15328-MSD for o-Terphenyl: Outside control limits due to dilution.

Metals By Method SW846 6010C

Matrix: AQ**Batch ID:** MP22565

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D96256-1AMS, D96256-1AMSD, D96256-1ASDL were used as the QC samples for the metals analysis.
- The serial dilution RPD(s) for Sodium are outside control limits for sample MP22565-SD1. Probable cause due to sample homogeneity.
- MP22565-SD1 for Sodium: Serial dilution indicates possible matrix interference.
- MP22565-MB1 for Sodium: All sample results < RL or > 10x MB concentration.

Wet Chemistry By Method SM2540G-2011 M

Matrix: SO**Batch ID:** GN39669

- Sample(s) D96302-1DUP were used as the QC samples for the Solids, Percent analysis.

Wet Chemistry By Method USDA HANDBOOK 60

Matrix: SO**Batch ID:** MP22565

- D96256-1A and -2A for Sodium Adsorption Ratio: Calculated as: $(\text{Na meq/L}) / \sqrt{[(\text{Ca meq/L}) + (\text{Mg meq/L})/2]}$

SAMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SAMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by SAMS indicated via signature on the report cover.

Summary of Hits

Job Number: D96256
Account: Renegade Oil & Gas
Project: 126 B7
Collected: 07/31/17



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D96256-1	WEST					
TPH-DRO (C10-C28)		41.5	11	9.8	mg/kg	SW846-8015B
D96256-1A	WEST					
Calcium		11.3	2.0		mg/l	SW846 6010C
Magnesium		3.62	1.0		mg/l	SW846 6010C
Sodium		13.8	2.0		mg/l	SW846 6010C
Sodium Adsorption Ratio ^a		0.914			ratio	USDA HANDBOOK 60
D96256-2	EAST					
Benzene		3200	330	170	ug/kg	SW846 8260B
Toluene		31000	670	330	ug/kg	SW846 8260B
Ethylbenzene		11700	670	170	ug/kg	SW846 8260B
Xylene (total)		169000	730	330	ug/kg	SW846 8260B
TPH-GRO (C6-C10)		2500	270	130	mg/kg	SW846 8015B
TPH-DRO (C10-C28)		5250	120	100	mg/kg	SW846-8015B
D96256-2A	EAST					
Calcium		104	2.0		mg/l	SW846 6010C
Magnesium		27.2	1.0		mg/l	SW846 6010C
Sodium		340	2.0		mg/l	SW846 6010C
Sodium Adsorption Ratio ^a		7.67			ratio	USDA HANDBOOK 60

(a) Calculated as: $(Na \text{ meq/L}) / \sqrt{[(Ca \text{ meq/L}) + (Mg \text{ meq/L})/2]}$

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: WEST Lab Sample ID: D96256-1 Matrix: SO - Soil Method: SW846 8260B Project: 126 B7	Date Sampled: 07/31/17 Date Received: 07/31/17 Percent Solids: 92.0
---	--

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V42895.D	1	08/01/17 17:30	MB	n/a	n/a	V5V2386
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.03 g	5.0 ml
Run #2		

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.1	0.54	ug/kg	
108-88-3	Toluene	ND	2.2	1.1	ug/kg	
100-41-4	Ethylbenzene	ND	2.2	0.54	ug/kg	
1330-20-7	Xylene (total)	ND	2.4	1.1	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	115%		70-130%
2037-26-5	Toluene-D8	94%		70-130%
460-00-4	4-Bromofluorobenzene	100%		65-142%
17060-07-0	1,2-Dichloroethane-D4	104%		70-130%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.1
4

Report of Analysis

Client Sample ID: WEST Lab Sample ID: D96256-1 Matrix: SO - Soil Method: SW846 8015B Project: 126 B7	Date Sampled: 07/31/17 Date Received: 07/31/17 Percent Solids: 92.0
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB41274.D	1	08/02/17 17:59	MB	n/a	n/a	GGB2036
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	12	5.9	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	85%		60-140%		

ND = Not detected RL = Reporting Limit E = Indicates value exceeds calibration range	MDL = Method Detection Limit J = Indicates an estimated value B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound
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4.1
4

Report of Analysis

Client Sample ID: WEST		Date Sampled: 07/31/17
Lab Sample ID: D96256-1		Date Received: 07/31/17
Matrix: SO - Soil		Percent Solids: 92.0
Method: SW846-8015B SW846 3546		
Project: 126 B7		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI56634.D	1	08/07/17 17:57	GN	08/07/17	OP15328	GFI2366
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	41.5	11	9.8	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	86%		41-134%		

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.1
4

Report of Analysis

Client Sample ID: WEST		Date Sampled: 07/31/17
Lab Sample ID: D96256-1A		Date Received: 07/31/17
Matrix: SO - Soil		Percent Solids: 92.0
Project: 126 B7		

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	11.3	2.0	mg/l	1	08/04/17	08/04/17 JM	SW846 6010C ¹	SW846 3010A/M ³
Magnesium	3.62	1.0	mg/l	1	08/04/17	08/07/17 JM	SW846 6010C ²	SW846 3010A/M ³
Sodium	13.8	2.0	mg/l	1	08/04/17	08/04/17 JM	SW846 6010C ¹	SW846 3010A/M ³

(1) Instrument QC Batch: MA8858

(2) Instrument QC Batch: MA8863

(3) Prep QC Batch: MP22565

RL = Reporting Limit

4.2
4

Report of Analysis

Client Sample ID: WEST		Date Sampled: 07/31/17
Lab Sample ID: D96256-1A		Date Received: 07/31/17
Matrix: SO - Soil		Percent Solids: 92.0
Project: 126 B7		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	0.914		ratio	1	08/07/17 19:36	JM	USDA HANDBOOK 60

(a) Calculated as: $(Na \text{ meq/L}) / \sqrt{[(Ca \text{ meq/L}) + (Mg \text{ meq/L})/2]}$

RL = Reporting Limit

4.2
4

Report of Analysis

Client Sample ID: EAST		Date Sampled: 07/31/17
Lab Sample ID: D96256-2		Date Received: 07/31/17
Matrix: SO - Soil		Percent Solids: 85.4
Method: SW846 8260B		
Project: 126 B7		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V42927.D	1	08/04/17 21:08	MB	n/a	n/a	V5V2387
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.03 g	5.0 ml	20.0 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	3200	330	170	ug/kg	
108-88-3	Toluene	31000	670	330	ug/kg	
100-41-4	Ethylbenzene	11700	670	170	ug/kg	
1330-20-7	Xylene (total)	169000	730	330	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		70-130%
2037-26-5	Toluene-D8	102%		70-130%
460-00-4	4-Bromofluorobenzene	90%		65-142%
17060-07-0	1,2-Dichloroethane-D4	97%		70-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: EAST Lab Sample ID: D96256-2 Matrix: SO - Soil Method: SW846 8015B Project: 126 B7	Date Sampled: 07/31/17 Date Received: 07/31/17 Percent Solids: 85.4
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB41275.D	1	08/02/17 18:36	MB	n/a	n/a	GGB2036
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	5.0 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	2500	270	130	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	89%		60-140%		

ND = Not detected RL = Reporting Limit E = Indicates value exceeds calibration range	MDL = Method Detection Limit J = Indicates an estimated value B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound
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4.3
4

Report of Analysis

Client Sample ID: EAST Lab Sample ID: D96256-2 Matrix: SO - Soil Method: SW846-8015B SW846 3546 Project: 126 B7	Date Sampled: 07/31/17 Date Received: 07/31/17 Percent Solids: 85.4
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI56696.D	10	08/08/17 16:04	GN	08/07/17	OP15328	GFI2368
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	5250	120	100	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	147% ^a		41-134%		

(a) Outside control limits due to dilution.

ND = Not detected RL = Reporting Limit E = Indicates value exceeds calibration range	MDL = Method Detection Limit J = Indicates an estimated value B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound
--	--

4.3
4

Report of Analysis

Client Sample ID: EAST	Date Sampled: 07/31/17
Lab Sample ID: D96256-2A	Date Received: 07/31/17
Matrix: SO - Soil	Percent Solids: 85.4
Project: 126 B7	

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	104	2.0	mg/l	1	08/04/17	08/04/17 JM	SW846 6010C ¹	SW846 3010A/M ³
Magnesium	27.2	1.0	mg/l	1	08/04/17	08/07/17 JM	SW846 6010C ²	SW846 3010A/M ³
Sodium	340	2.0	mg/l	1	08/04/17	08/04/17 JM	SW846 6010C ¹	SW846 3010A/M ³

(1) Instrument QC Batch: MA8858

(2) Instrument QC Batch: MA8863

(3) Prep QC Batch: MP22565

RL = Reporting Limit

4.4
4

Report of Analysis

Client Sample ID: EAST	Date Sampled: 07/31/17
Lab Sample ID: D96256-2A	Date Received: 07/31/17
Matrix: SO - Soil	Percent Solids: 85.4
Project: 126 B7	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	7.67		ratio	1	08/07/17 20:06	JM	USDA HANDBOOK 60

(a) Calculated as: $(Na \text{ meq/L}) / \sqrt{[(Ca \text{ meq/L}) + (Mg \text{ meq/L})/2]}$

RL = Reporting Limit

4.4
4

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



ACCUTEST

CHAIN OF CUSTODY

4036 Youngfield Street, Wheat Ridge, CO 80033
TEL: 303-425-6021 FAX: 303-425-6854
www.accutest.com

FED-EX Tracking #	Order Control #
SGS Account Code #	SGS Account Job # D96256

Client / Reporting Information		Project Information				Requested Analysis (see TEST CODE sheet)												Matrix Codes										
Company Name: Pengaple Oil & Gas		Project Name: 12687				<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> YEAR V8200BTLX-V8005-ARD B8005-DEO </div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> LAB USE ONLY </div> </div>												DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Sol SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank										
Street Address: Cross S. Main St. Ste. 210		Street:		Billing Information (if different from Report to)																								
City: Arvada		City, State: Arapahoe County, CO		Company Name:																								
Project Contact: Ed Irvine		Project #:		Street Address:																								
Phone # 303 680 4725 Email: ed@pengaple.com		Client Purchase Order #:		City, State ZIP:																								
Sample Name(s): Cody Bayles		Project Manager:		Attention:																								
SSS Account Sample #		Field ID / Point of Collection		MEQ/HDI Val #		Collection		Number of preserved bottles												LAB USE ONLY								
						Date		Time		Sampled by		Matrix		# of bottles		<input type="checkbox"/> V1 <input type="checkbox"/> V2 <input type="checkbox"/> V3 <input type="checkbox"/> V4 <input type="checkbox"/> V5 <input type="checkbox"/> V6 <input type="checkbox"/> V7 <input type="checkbox"/> V8 <input type="checkbox"/> V9 <input type="checkbox"/> V10 <input type="checkbox"/> V11 <input type="checkbox"/> V12 <input type="checkbox"/> V13 <input type="checkbox"/> V14 <input type="checkbox"/> V15 <input type="checkbox"/> V16 <input type="checkbox"/> V17 <input type="checkbox"/> V18 <input type="checkbox"/> V19 <input type="checkbox"/> V20 <input type="checkbox"/> V21 <input type="checkbox"/> V22 <input type="checkbox"/> V23 <input type="checkbox"/> V24 <input type="checkbox"/> V25 <input type="checkbox"/> V26 <input type="checkbox"/> V27 <input type="checkbox"/> V28 <input type="checkbox"/> V29 <input type="checkbox"/> V30 <input type="checkbox"/> V31 <input type="checkbox"/> V32 <input type="checkbox"/> V33 <input type="checkbox"/> V34 <input type="checkbox"/> V35 <input type="checkbox"/> V36 <input type="checkbox"/> V37 <input type="checkbox"/> V38 <input type="checkbox"/> V39 <input type="checkbox"/> V40 <input type="checkbox"/> V41 <input type="checkbox"/> V42 <input type="checkbox"/> V43 <input type="checkbox"/> V44 <input type="checkbox"/> V45 <input type="checkbox"/> V46 <input type="checkbox"/> V47 <input type="checkbox"/> V48 <input type="checkbox"/> V49 <input type="checkbox"/> V50 <input type="checkbox"/> V51 <input type="checkbox"/> V52 <input type="checkbox"/> V53 <input type="checkbox"/> V54 <input type="checkbox"/> V55 <input type="checkbox"/> V56 <input type="checkbox"/> V57 <input type="checkbox"/> V58 <input type="checkbox"/> V59 <input type="checkbox"/> V60 <input type="checkbox"/> V61 <input type="checkbox"/> V62 <input type="checkbox"/> V63 <input type="checkbox"/> V64 <input type="checkbox"/> V65 <input type="checkbox"/> V66 <input type="checkbox"/> V67 <input type="checkbox"/> V68 <input type="checkbox"/> V69 <input type="checkbox"/> V70 <input type="checkbox"/> V71 <input type="checkbox"/> V72 <input type="checkbox"/> V73 <input type="checkbox"/> V74 <input type="checkbox"/> V75 <input type="checkbox"/> V76 <input type="checkbox"/> V77 <input type="checkbox"/> V78 <input type="checkbox"/> V79 <input type="checkbox"/> V80 <input type="checkbox"/> V81 <input type="checkbox"/> V82 <input type="checkbox"/> V83 <input type="checkbox"/> V84 <input type="checkbox"/> V85 <input type="checkbox"/> V86 <input type="checkbox"/> V87 <input type="checkbox"/> V88 <input type="checkbox"/> V89 <input type="checkbox"/> V90 <input type="checkbox"/> V91 <input type="checkbox"/> V92 <input type="checkbox"/> V93 <input type="checkbox"/> V94 <input type="checkbox"/> V95 <input type="checkbox"/> V96 <input type="checkbox"/> V97 <input type="checkbox"/> V98 <input type="checkbox"/> V99 <input type="checkbox"/> V100												
1 West						7/31/17		12:00PM		CB		SO		3		<input checked="" type="checkbox"/> V1 <input checked="" type="checkbox"/> V2 <input checked="" type="checkbox"/> V3 <input type="checkbox"/> V4 <input type="checkbox"/> V5 <input type="checkbox"/> V6 <input type="checkbox"/> V7 <input type="checkbox"/> V8 <input type="checkbox"/> V9 <input type="checkbox"/> V10 <input type="checkbox"/> V11 <input type="checkbox"/> V12 <input type="checkbox"/> V13 <input type="checkbox"/> V14 <input type="checkbox"/> V15 <input type="checkbox"/> V16 <input type="checkbox"/> V17 <input type="checkbox"/> V18 <input type="checkbox"/> V19 <input type="checkbox"/> V20 <input type="checkbox"/> V21 <input type="checkbox"/> V22 <input type="checkbox"/> V23 <input type="checkbox"/> V24 <input type="checkbox"/> V25 <input type="checkbox"/> V26 <input type="checkbox"/> V27 <input type="checkbox"/> V28 <input type="checkbox"/> V29 <input type="checkbox"/> V30 <input type="checkbox"/> V31 <input type="checkbox"/> V32 <input type="checkbox"/> V33 <input type="checkbox"/> V34 <input type="checkbox"/> V35 <input type="checkbox"/> V36 <input type="checkbox"/> V37 <input type="checkbox"/> V38 <input type="checkbox"/> V39 <input type="checkbox"/> V40 <input type="checkbox"/> V41 <input type="checkbox"/> V42 <input type="checkbox"/> V43 <input type="checkbox"/> V44 <input type="checkbox"/> V45 <input type="checkbox"/> V46 <input type="checkbox"/> V47 <input type="checkbox"/> V48 <input type="checkbox"/> V49 <input type="checkbox"/> V50 <input type="checkbox"/> V51 <input type="checkbox"/> V52 <input type="checkbox"/> V53 <input type="checkbox"/> V54 <input type="checkbox"/> V55 <input type="checkbox"/> V56 <input type="checkbox"/> V57 <input type="checkbox"/> V58 <input type="checkbox"/> V59 <input type="checkbox"/> V60 <input type="checkbox"/> V61 <input type="checkbox"/> V62 <input type="checkbox"/> V63 <input type="checkbox"/> V64 <input type="checkbox"/> V65 <input type="checkbox"/> V66 <input type="checkbox"/> V67 <input type="checkbox"/> V68 <input type="checkbox"/> V69 <input type="checkbox"/> V70 <input type="checkbox"/> V71 <input type="checkbox"/> V72 <input type="checkbox"/> V73 <input type="checkbox"/> V74 <input type="checkbox"/> V75 <input type="checkbox"/> V76 <input type="checkbox"/> V77 <input type="checkbox"/> V78 <input type="checkbox"/> V79 <input type="checkbox"/> V80 <input type="checkbox"/> V81 <input type="checkbox"/> V82 <input type="checkbox"/> V83 <input type="checkbox"/> V84 <input type="checkbox"/> V85 <input type="checkbox"/> V86 <input type="checkbox"/> V87 <input type="checkbox"/> V88 <input type="checkbox"/> V89 <input type="checkbox"/> V90 <input type="checkbox"/> V91 <input type="checkbox"/> V92 <input type="checkbox"/> V93 <input type="checkbox"/> V94 <input type="checkbox"/> V95 <input type="checkbox"/> V96 <input type="checkbox"/> V97 <input type="checkbox"/> V98 <input type="checkbox"/> V99 <input type="checkbox"/> V100												C1
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Turnaround Time (Business days)		Data Deliverable Information				Comments / Special Instructions
<input type="checkbox"/> Std. 15 Business Days <input checked="" type="checkbox"/> Std. 16 Business Days <input type="checkbox"/> 6 Day RUSH <input type="checkbox"/> 3 Day Emergency <input type="checkbox"/> 2 Day Emergency <input type="checkbox"/> 1 Day Emergency <input type="checkbox"/> Emergency & Rush T/A's are available via LabLink		Approved By (SGS Accutest PM) / Date:		<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> COMMON <input type="checkbox"/> COMMON+ <input type="checkbox"/> EDD Format Commercial "A" = Results Only Commercial "B" = Results + QC Summary Commercial B+ = Results(QC/Summary) (+ emergency)		<input type="checkbox"/> State Forms Required <input type="checkbox"/> Send Forms to State <input type="checkbox"/> Report by Fax <input checked="" type="checkbox"/> Report by PDF <input type="checkbox"/> EDD Format
Sample Custody must be documented below each time samples change possession, including courier delivery.						
Relinquished by Sampler:	Date Time:	Received By:	Date Time:	Relinquished By:	Date Time:	Received By:
1	7/31/17 4:05PM	2/31/17 16:05	2	2	2	2
3	3	3	4	4	4	4
5	3	3	Custody Seal #	Intact	Not Intact	Preserved where applicable
			1-10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
				On Ice	Cooler Temp.	30.1

5.1
5

SGS Accutest Sample Receipt Summary

Job Number: D96256

Client: RENEGADE

Project: 126 B7

Date / Time Received: 7/31/2017 4:05:00 PM

Delivery Method: _____

Airbill #'s: HD

Cooler Temps (Initial/Adjusted): #1: (30.1/30.1):

Cooler Security

Y or N

Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature

Y or N

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | <u>IR Gun;</u> | |
| 3. Cooler media: | <u>Ice (Bag)</u> | |
| 4. No. Coolers: | <u>1</u> | |

Quality Control Preservation

Y or N

N/A

- | | | | |
|---------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Trip Blank listed on COC: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments

Sample Integrity - Documentation

Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | <u>Intact</u> | |

Sample Integrity - Instructions

Y or N

N/A

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume recvd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

5.1
5

D96256: Chain of Custody

Page 2 of 2

GC/MS Volatiles**QC Data Summaries**

Includes the following where applicable:

- **Method Blank Summaries**
- **Blank Spike Summaries**
- **Matrix Spike and Duplicate Summaries**

Method Blank Summary

Job Number: D96256
 Account: RENOGCOA Renegade Oil & Gas
 Project: 126 B7

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V2386-MB	5V42890.D	1	08/01/17	MB	n/a	n/a	V5V2386

The QC reported here applies to the following samples:

Method: SW846 8260B

D96256-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/kg	
100-41-4	Ethylbenzene	ND	2.0	0.50	ug/kg	
108-88-3	Toluene	ND	2.0	1.0	ug/kg	
1330-20-7	Xylene (total)	ND	2.2	1.0	ug/kg	

CAS No.	Surrogate Recoveries	Results	Limits
1868-53-7	Dibromofluoromethane	111%	70-130%
2037-26-5	Toluene-D8	96%	70-130%
460-00-4	4-Bromofluorobenzene	98%	65-142%
17060-07-0	1,2-Dichloroethane-D4	97%	70-130%

6.1.1
6

Method Blank Summary

Job Number: D96256
 Account: RENOGCOA Renegade Oil & Gas
 Project: 126 B7

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V2387-MB	5V42909.D	1	08/04/17	MB	n/a	n/a	V5V2387

The QC reported here applies to the following samples:

Method: SW846 8260B

D96256-2

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	50	25	ug/kg	
100-41-4	Ethylbenzene	ND	100	25	ug/kg	
108-88-3	Toluene	ND	100	50	ug/kg	
1330-20-7	Xylene (total)	ND	110	50	ug/kg	

CAS No.	Surrogate Recoveries	Results	Limits
1868-53-7	Dibromofluoromethane	109%	70-130%
2037-26-5	Toluene-D8	95%	70-130%
460-00-4	4-Bromofluorobenzene	99%	65-142%
17060-07-0	1,2-Dichloroethane-D4	96%	70-130%

6.1.2
6

Method Blank Summary

Job Number: D96256
 Account: RENOGCOA Renegade Oil & Gas
 Project: 126 B7

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V2387-MB	5V42910.D	1	08/04/17	MB	n/a	n/a	V5V2387

The QC reported here applies to the following samples:

Method: SW846 8260B

D96256-2

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/kg	
100-41-4	Ethylbenzene	ND	2.0	0.50	ug/kg	
108-88-3	Toluene	ND	2.0	1.0	ug/kg	
1330-20-7	Xylene (total)	ND	2.2	1.0	ug/kg	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	108%	70-130%
2037-26-5	Toluene-D8	95%	70-130%
460-00-4	4-Bromofluorobenzene	100%	65-142%
17060-07-0	1,2-Dichloroethane-D4	93%	70-130%

6.1.3

6

Blank Spike Summary

Job Number: D96256
 Account: RENOGCOA Renegade Oil & Gas
 Project: 126 B7

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V2386-BS	5V42886.D	1	08/01/17	MB	n/a	n/a	V5V2386

The QC reported here applies to the following samples:

Method: SW846 8260B

D96256-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	50	42.5	85	70-130
100-41-4	Ethylbenzene	50	42.3	85	70-130
108-88-3	Toluene	50	40.8	82	70-130
1330-20-7	Xylene (total)	150	128	85	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	115%	70-130%
2037-26-5	Toluene-D8	94%	70-130%
460-00-4	4-Bromofluorobenzene	98%	65-142%
17060-07-0	1,2-Dichloroethane-D4	102%	70-130%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: D96256
 Account: RENOGCOA Renegade Oil & Gas
 Project: 126 B7

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V2387-BS	5V42907.D	1	08/04/17	MB	n/a	n/a	V5V2387

The QC reported here applies to the following samples:

Method: SW846 8260B

D96256-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	50	43.3	87	70-130
100-41-4	Ethylbenzene	50	42.9	86	70-130
108-88-3	Toluene	50	41.7	83	70-130
1330-20-7	Xylene (total)	150	130	87	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	113%	70-130%
2037-26-5	Toluene-D8	94%	70-130%
460-00-4	4-Bromofluorobenzene	97%	65-142%
17060-07-0	1,2-Dichloroethane-D4	101%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D96256
 Account: RENOGCOA Renegade Oil & Gas
 Project: 126 B7

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D96117-7MS	5V42892.D	1	08/01/17	MB	n/a	n/a	V5V2386
D96117-7MSD	5V42893.D	1	08/01/17	MB	n/a	n/a	V5V2386
D96117-7	5V42891.D	1	08/01/17	MB	n/a	n/a	V5V2386

The QC reported here applies to the following samples:

Method: SW846 8260B

D96256-1

CAS No.	Compound	D96117-7 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	64.6	50.5	78	65.4	55.9	86	10	43-135/30
100-41-4	Ethylbenzene	ND	64.6	49.9	77	65.4	55.2	84	10	30-144/30
108-88-3	Toluene	ND	64.6	47.9	74	65.4	53.1	81	10	27-144/30
1330-20-7	Xylene (total)	ND	194	151	78	196	167	85	10	13-154/30

CAS No.	Surrogate Recoveries	MS	MSD	D96117-7	Limits
1868-53-7	Dibromofluoromethane	116%	115%	114%	70-130%
2037-26-5	Toluene-D8	95%	94%	94%	70-130%
460-00-4	4-Bromofluorobenzene	98%	98%	97%	65-142%
17060-07-0	1,2-Dichloroethane-D4	105%	103%	107%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D96256
 Account: RENOGCOA Renegade Oil & Gas
 Project: 126 B7

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D96343-1MS	5V42912.D	1	08/04/17	MB	n/a	n/a	V5V2387
D96343-1MSD	5V42913.D	1	08/04/17	MB	n/a	n/a	V5V2387
D96343-1	5V42911.D	1	08/04/17	MB	n/a	n/a	V5V2387

The QC reported here applies to the following samples:

Method: SW846 8260B

D96256-2

CAS No.	Compound	D96343-1 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	2.5	56.5	44.3	74	55.7	39.4	66	12	43-135/30
100-41-4	Ethylbenzene	31.7	56.5	59.3	49	55.7	63.3	57	7	30-144/30
108-88-3	Toluene	28.2	56.5	61.7	59	55.7	62.0	61	0	27-144/30
1330-20-7	Xylene (total)	184	170	252	40	167	297	68	16	13-154/30

CAS No.	Surrogate Recoveries	MS	MSD	D96343-1	Limits
1868-53-7	Dibromofluoromethane	115%	117%	117%	70-130%
2037-26-5	Toluene-D8	99%	99%	98%	70-130%
460-00-4	4-Bromofluorobenzene	106%	111%	105%	65-142%
17060-07-0	1,2-Dichloroethane-D4	104%	108%	107%	70-130%

* = Outside of Control Limits.

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- **Method Blank Summaries**
- **Blank Spike Summaries**
- **Matrix Spike and Duplicate Summaries**

Method Blank Summary

Job Number: D96256
Account: RENOGCOA Renegade Oil & Gas
Project: 126 B7

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB2036-MB	GB41257.D	1	08/02/17	MB	n/a	n/a	GGB2036

The QC reported here applies to the following samples:

Method: SW846 8015B

D96256-1, D96256-2

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	10	5.0	mg/kg	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	84% 60-140%

7.1.1
7

Method Blank Summary

Job Number: D96256
Account: RENOGCOA Renegade Oil & Gas
Project: 126 B7

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB2036-MB	GB41271.D	1	08/02/17	MB	n/a	n/a	GGB2036

The QC reported here applies to the following samples:

Method: SW846 8015B

D96256-1, D96256-2

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	10	5.0	mg/kg	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	84% 60-140%

7.1.2

7

Blank Spike Summary

Job Number: D96256
 Account: RENOGCOA Renegade Oil & Gas
 Project: 126 B7

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB2036-BS	GB41256.D	1	08/02/17	MB	n/a	n/a	GGB2036

The QC reported here applies to the following samples:

Method: SW846 8015B

D96256-1, D96256-2

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	110	117	106	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	87%	60-140%

7.2.1
7

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D96256
 Account: RENOGCOA Renegade Oil & Gas
 Project: 126 B7

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D96247-10MS	GB41259.D	1	08/02/17	MB	n/a	n/a	GGB2036
D96247-10MSD	GB41260.D	1	08/02/17	MB	n/a	n/a	GGB2036
D96247-10	GB41258.D	1	08/02/17	MB	n/a	n/a	GGB2036

The QC reported here applies to the following samples:

Method: SW846 8015B

D96256-1, D96256-2

CAS No.	Compound	D96247-10 mg/kg	Spike Q	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND	135	136	101	135	135	100	1	70-131/30

CAS No.	Surrogate Recoveries	MS	MSD	D96247-10	Limits
120-82-1	1,2,4-Trichlorobenzene	90%	85%	82%	60-140%

* = Outside of Control Limits.

7.3.1
7

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- **Method Blank Summaries**
- **Blank Spike Summaries**
- **Matrix Spike and Duplicate Summaries**

Method Blank Summary

Job Number: D96256
 Account: RENOGCOA Renegade Oil & Gas
 Project: 126 B7

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15328-MB	FI56620.D	1	08/07/17	GN	08/07/17	OP15328	GFI2366

The QC reported here applies to the following samples:

Method: SW846-8015B

D96256-1, D96256-2

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	10	9.0	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	86% 41-134%

Method Blank Summary

Job Number: D96256
Account: RENOGCOA Renegade Oil & Gas
Project: 126 B7

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15328-MB2	FI56633.D	1	08/07/17	GN	08/07/17	OP15328	GFI2367

The QC reported here applies to the following samples:

Method: SW846-8015B

D96256-1, D96256-2

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	40	36	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	83% 41-134%

8.1.2
8

Blank Spike Summary

Job Number: D96256
 Account: RENOGCOA Renegade Oil & Gas
 Project: 126 B7

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15328-BS	FI56622.D	1	08/07/17	GN	08/07/17	OP15328	GFI2366

The QC reported here applies to the following samples:

Method: SW846-8015B

D96256-1, D96256-2

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	250	156	62	35-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	81%	41-134%

8.2.1
8

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D96256
 Account: RENOGCOA Renegade Oil & Gas
 Project: 126 B7

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15328-MS	FI56692.D	10	08/08/17	GN	08/07/17	OP15328	GFI2368
OP15328-MSD	FI56694.D	10	08/08/17	GN	08/07/17	OP15328	GFI2368
D96256-2	FI56696.D	10	08/08/17	GN	08/07/17	OP15328	GFI2368

The QC reported here applies to the following samples:

Method: SW846-8015B

D96256-1, D96256-2

CAS No.	Compound	D96256-2 mg/kg	Spike mg/kg	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	5250	293	4670	-75* a	293	5580	236* a	23	10-171/30

CAS No.	Surrogate Recoveries	MS	MSD	D96256-2	Limits
84-15-1	o-Terphenyl	125%	150%* b	147%* b	41-134%

(a) Outside control limits due to high level in sample relative to spike amount.

(b) Outside control limits due to dilution.

* = Outside of Control Limits.

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- **Method Blank Summaries**
- **Matrix Spike and Duplicate Summaries**
- **Blank Spike and Lab Control Sample Summaries**
- **Serial Dilution Summaries**

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D96256
Account: RENOGCOA - Renegade Oil & Gas
Project: 126 B7

QC Batch ID: MP22565
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date: 08/04/17

Metal	RL	IDL	MDL	MB raw	final
Aluminum	500	55	65		
Antimony	150	11	44		
Arsenic	130	19	60		
Barium	50	1	6.5		
Beryllium	50	4.5	8		
Boron	250	4	18		
Cadmium	50	1	9.5		
Calcium	2000	12	50	2.0	<2000
Chromium	50	1.5	5.5		
Cobalt	25	2.5	6		
Copper	50	4	19		
Iron	350	7.5	35		
Lead	250	11	25		
Lithium	25	2	3.5		
Magnesium	1000	250	200	63.0	<1000
Manganese	25	2.5	4.5		
Molybdenum	50	2	18		
Nickel	150	2.5	14		
Phosphorus	500	75	170		
Potassium	5000	420	360		
Selenium	250	36	55		
Silicon	250	24	42		
Silver	150	1.5	3.1		
Sodium	2000	37	70	1590	* (a)
Strontium	25	.05	1.5		
Thallium	50	9	40		
Tin	250	60	60		
Titanium	50	.5	14		
Uranium	250	15	22		
Vanadium	50	2	3		
Zinc	150	2	18		

Associated samples MP22565: D96256-1A, D96256-2A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D96256
Account: RENOGCOA - Renegade Oil & Gas
Project: 126 B7

QC Batch ID: MP22565
Matrix Type: AQUEOUS

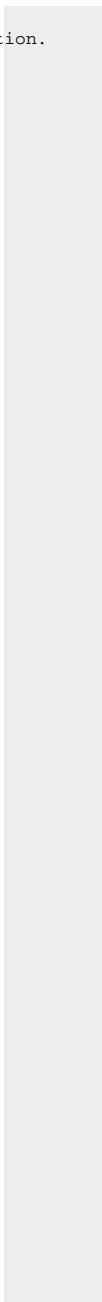
Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date: 08/04/17

Metal	RL	IDL	MDL	MB raw	final
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(anr) Analyte not requested

(a) All sample results < RL or > 10x MB concentration.



9.1.1
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D96256
 Account: RENOGCOA - Renegade Oil & Gas
 Project: 126 B7

QC Batch ID: MP22565
 Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
 Units: ug/l

Prep Date: 08/04/17

Metal	D96256-1A Original MS	Spikelot ICPALL2	% Rec	QC Limits	
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Boron					
Cadmium					
Calcium	11300	138000	125000	101.4	75-125
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Lithium					
Magnesium	3620	134000	125000	104.3	75-125
Manganese					
Molybdenum					
Nickel					
Phosphorus					
Potassium					
Selenium					
Silicon					
Silver					
Sodium	12400	145000	125000	105.0	75-125
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc					

Associated samples MP22565: D96256-1A, D96256-2A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

9.1.2
 9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D96256
Account: RENOGCOA - Renegade Oil & Gas
Project: 126 B7

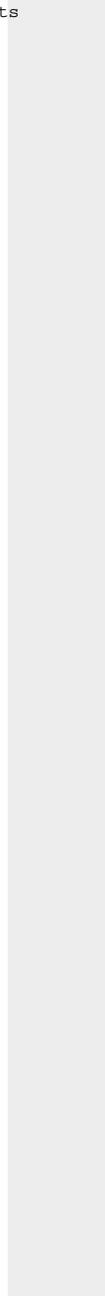
QC Batch ID: MP22565
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date: 08/04/17

Metal	D96256-1A Original MS	SpikeLot ICPALL2	% Rec	QC Limits
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(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested



9.1.2
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D96256
 Account: RENOGCOA - Renegade Oil & Gas
 Project: 126 B7

QC Batch ID: MP22565
 Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
 Units: ug/l

Prep Date: 08/04/17

Metal	D96256-1A Original MSD		SpikeLot ICPALL2 % Rec		MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium						
Boron						
Cadmium						
Calcium	11300	137000	125000	100.6	0.7	20
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Lithium						
Magnesium	3620	132000	125000	102.7	1.5	20
Manganese						
Molybdenum						
Nickel						
Phosphorus						
Potassium						
Selenium						
Silicon						
Silver						
Sodium	12400	140000	125000	101.0	3.5	20
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc						

Associated samples MP22565: D96256-1A, D96256-2A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

9.1.2
 9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D96256
Account: RENOGCOA - Renegade Oil & Gas
Project: 126 B7

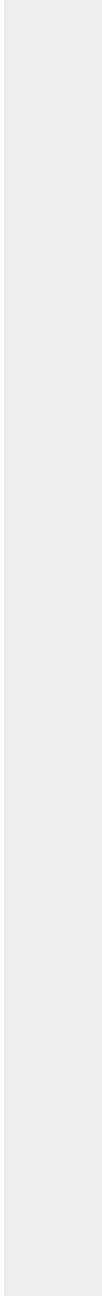
QC Batch ID: MP22565
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date: 08/04/17

Metal	D96256-1A Original MSD	SpikeLot ICPALL2	% Rec	MSD RPD	QC Limit
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(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested



SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D96256
 Account: RENOGCOA - Renegade Oil & Gas
 Project: 126 B7

QC Batch ID: MP22565
 Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
 Units: ug/l

Prep Date: 08/04/17

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium	127000	125000	101.6	80-120
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Lithium				
Magnesium	127000	125000	101.6	80-120
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium	131000	125000	104.8	80-120
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP22565: D96256-1A, D96256-2A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

9.1.3
 9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D96256
Account: RENOGCOA - Renegade Oil & Gas
Project: 126 B7

QC Batch ID: MP22565
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date: 08/04/17

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
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(anr) Analyte not requested



SERIAL DILUTION RESULTS SUMMARY

Login Number: D96256
 Account: RENOGCOA - Renegade Oil & Gas
 Project: 126 B7

QC Batch ID: MP22565
 Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
 Units: ug/l

Prep Date: 08/04/17

Metal	D96256-1A Original SDL 1:5		%DIF	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium	2270	2390	5.3	0-10
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Lithium				
Magnesium	723	776	7.3	0-10
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium	2480	4120	50.0*(a)	0-10
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP22565: D96256-1A, D96256-2A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

9.1.4
9

SERIAL DILUTION RESULTS SUMMARY

Login Number: D96256
Account: RENOGCOA - Renegade Oil & Gas
Project: 126 B7

QC Batch ID: MP22565
Matrix Type: AQUEOUS

Methods: SW846 6010C, USDA HANDBOOK 60
Units: ug/l

Prep Date: 08/04/17

Metal	D96256-1A	QC
	Original SDL 1:5 %DIF	Limits

(anr) Analyte not requested
(a) Serial dilution indicates possible matrix interference.