Mountain States ACCUTEST LABORATORIES

12/16/11

Technical Report for

KRW Consulting, Inc.

XOM FRU 297-20A

1108-10A

Accutest Job Number: D29894

Sampling Date: 11/30/11

Report to:

KRW Consulting, Inc.
8000 West 14th Avenue Suite 200
Lakewood, CO 80214
cburger@krwconsulting.com; gknell@krwconsulting.com;
dknudson@krwconsulting.com; jhess@krwconsulting.com;
ATTN: Dwayne Knudson

Total number of pages in report: **74**

ACCREDITED IN ACCORDANCE WITH nelac

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

Brad Madadian
Laboratory Director

Client Service contact: 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW) UT (NELAP CO00049)

Test results relate only to samples analyzed.

Sections: 1 2 3 4 5 6 7 8 9 10 11 12

Table of Contents

Sample Summary

KRW Consulting, Inc.

Job No: D29894

XOM FRU 297-20A
Project No: 1108-10A

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
D29894-1	11/30/11	13:00	CB	12/01/11	SO	Soil	RESERVE CONTENTS
D29894-1R	11/30/11	13:00	CB	12/01/11	SO	Soil	RESERVE CONTENTS
D29894-1RA	11/30/11	13:00	CB	12/01/11	SO	Soil	RESERVE CONTENTS

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

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	KRW Consulting, Inc.	**Job No**	D29894
Site:	XOM FRU 297-20A	**Report Dat**	12/16/2011 3:07:04 PM

On 12/01/2011, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 5.9 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D29894 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:** V3V860

- All samples were analyzed within the recommended method holding time.
- Sample(s) D29909-9MS, D29909-9MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix SO **Batch ID:** M:OP27236

- The data for SW846 8270C BY SIM meets quality control requirements.
- D29894-1R: Analysis performed at Accutest Laboratories, Marlborough, MA.

Volatiles by GC By Method SW846 8015B

Matrix SO **Batch ID:** GGB800

- All samples were analyzed within the recommended method holding time.
- Sample(s) D29895-1MS, D29895-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Extractables by GC By Method SW846-8015B

Matrix SO **Batch ID:** OP4986

- All samples were extracted and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D30152-1MS, D30152-1MSD were used as the QC samples indicated.

Metals By Method SW846 6010B

Matrix AQ **Batch ID:** MP6487

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D29894-1RAMS, D29894-1RAMSD were used as the QC samples for the metals analysis.

Matrix SO **Batch ID:** MP6454

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D29894-1RMS, D29894-1RMSD, D29894-1RSDL were used as the QC samples for the metals analysis.
- The matrix spike (MS) and matrix spike duplicate (MSD) recovery(s) of Cadmium, Nickel, Zinc are outside control limits. Spike recovery indicates possible matrix interference.
- The matrix spike (MS) recovery(s) of Barium are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- The serial dilution RPD(s) for Selenium, Lead are outside control limits for sample MP6454-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- The serial dilution RPD(s) for Copper are outside control limits for sample MP6454-SD1. Serial dilution indicates possible matrix interference.
- D29894-1R for Selenium: Elevated detection limit due to dilution required for possible matrix interference.

Metals By Method SW846 6020

Matrix SO **Batch ID:** MP6455

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D29894-1RMS, D29894-1RMSD, D29894-1RSDL were used as the QC samples for the metals analysis.

Metals By Method SW846 7471A

Matrix SO **Batch ID:** MP6451

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D30070-8MS, D30070-8MSD were used as the QC samples for the metals analysis.

Wet Chemistry By Method ASTM D1498-76M

Matrix SO **Batch ID:** GN12893

- Sample(s) D30239-1DUP were used as the QC samples for the Redox Potential Vs H2 analysis.

Wet Chemistry By Method SM19 2540B M

Matrix SO **Batch ID:** GN12737

- The data for SM19 2540B M meets quality control requirements.

Matrix SO **Batch ID:** GN12856

- The data for SM19 2540B M meets quality control requirements.

Wet Chemistry By Method SW846 3060/7196A M

Matrix SO **Batch ID:** R11116

- The data for SW846 3060/7196A M meets quality control requirements.
- D29894-1R for Chromium, Trivalent: Calculated as: (Chromium) - (Chromium, Hexavalent)

Wet Chemistry By Method SW846 3060A/7196A

Matrix	SO	Batch ID:	M:GP13918

- The data for SW846 3060A/7196A meets quality control requirements.
- D29894-1R for Chromium, Hexavalent: Analysis performed at Accutest Laboratories, Marlborough, MA.

Wet Chemistry By Method SW846 9045C

Matrix	SO	Batch ID:	GN12889

- The following sample was run outside of holding time for method SW846 9045C: D29894-1R.

Wet Chemistry By Method USDA HANDBOOK 60

Matrix	SO	Batch ID:	MP6487

- D29894-1RA for Sodium Adsorption Ratio: Calculated as: (Na meq/L) / sqrt [(Ca meq/L)+(Mg meq/L)/2]

AMS 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.

AMS 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 AMS indicated via signature on the report cover.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Accutest Mountain States	**Job No**	D29894
Site:	KRWCCOL: XOM FRU 297-20A	**Report Date**	12/16/2011 4:30:42 PM

1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 11/30/2011 and were received at Accutest on 12/01/2011 properly preserved, at 1.7 Deg. C and intact. These Samples received an Accutest job number of D29894. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix SO **Batch ID:** OP27236

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC6398-4MS, MC6398-4MSD were used as the QC samples indicated.
- Matrix Spike Duplicate Recovery(s) for Benzo(a)anthracene are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.are out
- Matrix Spike Duplicate Recovery(s) for Fluoranthene, Pyrene are outside control limits. Outside control limits due to high level in sample relative to spike amount.

Wet Chemistry By Method SW846 3060A/7196A

Matrix SO **Batch ID:** GP13918

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D30086-11DUP, D30086-11MS were used as the QC samples for Chromium, Hexavalent.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(D29894).

Mountain States ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: RESERVE CONTENTS
Lab Sample ID: D29894-1
Matrix: SO - Soil
Method: SW846 8260B
Project: XOM FRU 297-20A

Date Sampled: 11/30/11
Date Received: 12/01/11
Percent Solids: 33.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V14844.D	1	12/02/11	KV	n/a	n/a	V3V860
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.07 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	250	110	ug/kg	
108-88-3	Toluene	ND	490	250	ug/kg	
100-41-4	Ethylbenzene	ND	490	120	ug/kg	
1330-20-7	Xylene (total)	668	990	490	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	110%		61-130%
460-00-4	4-Bromofluorobenzene	119%		53-131%
17060-07-0	1,2-Dichloroethane-D4	101%		62-130%

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: RESERVE CONTENTS
Lab Sample ID: D29894-1
Matrix: SO - Soil
Method: SW846 8015B
Project: XOM FRU 297-20A

Date Sampled: 11/30/11
Date Received: 12/01/11
Percent Solids: 33.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB14155.D	1	12/02/11	SK	n/a	n/a	GGB800
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.1 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	49.6	49	25	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	91%		60-140%

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: RESERVE CONTENTS
Lab Sample ID: D29894-1
Matrix: SO - Soil
Method: SW846-8015B SW846 3546
Project: XOM FRU 297-20A

Date Sampled: 11/30/11
Date Received: 12/01/11
Percent Solids: 33.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FD12214.D	1	12/11/11	TR	12/10/11	OP4986	GFD631
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	37.3	40	26	mg/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	66%		43-136%

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:	RESERVE CONTENTS		
Lab Sample ID:	D29894-1R	**Date Sampled:**	11/30/11
Matrix:	SO - Soil	**Date Received:**	12/01/11
Method:	SW846 8270C BY SIM SW846 3546	**Percent Solids:**	33.8
Project:	XOM FRU 297-20A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	U3949.D	1	12/15/11	AMA	12/14/11	M:OP27236	M:MSU239
Run #2							

	Initial Weight	Final Volume
Run #1	20.8 g	1.0 ml
Run #2		

COGCC Table 910-1 PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	14	1.7	ug/kg	
120-12-7	Anthracene	ND	14	2.3	ug/kg	
56-55-3	Benzo(a)anthracene	10.1	14	1.8	ug/kg	J
50-32-8	Benzo(a)pyrene	6.7	14	2.1	ug/kg	J
205-99-2	Benzo(b)fluoranthene	12.2	14	1.7	ug/kg	J
207-08-9	Benzo(k)fluoranthene	5.3	14	2.7	ug/kg	J
218-01-9	Chrysene	26.5	14	2.2	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	14	4.1	ug/kg	
206-44-0	Fluoranthene	14.2	14	2.3	ug/kg	
86-73-7	Fluorene	98.2	14	1.3	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	6.4	14	3.6	ug/kg	J
91-20-3	Naphthalene	228	14	3.1	ug/kg	
129-00-0	Pyrene	34.4	14	5.0	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	33%		30-130%
321-60-8	2-Fluorobiphenyl	38%		30-130%
1718-51-0	Terphenyl-d14	38%		30-130%

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

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:	RESERVE CONTENTS		
Lab Sample ID:	D29894-1R	**Date Sampled:**	11/30/11
Matrix:	SO - Soil	**Date Received:**	12/01/11
		Percent Solids:	33.8
Project:	XOM FRU 297-20A		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	4.3	1.2	mg/kg	5	12/13/11	12/14/11	GJ	SW846 6020 [3]	SW846 3050B [6]
Barium	17800	30	mg/kg	10	12/13/11	12/14/11	JB	SW846 6010B [2]	SW846 3050B [5]
Cadmium	< 3.0	3.0	mg/kg	1	12/13/11	12/13/11	JB	SW846 6010B [2]	SW846 3050B [5]
Chromium	23.9	3.0	mg/kg	1	12/13/11	12/13/11	JB	SW846 6010B [2]	SW846 3050B [5]
Copper	15.7	3.0	mg/kg	1	12/13/11	12/13/11	JB	SW846 6010B [2]	SW846 3050B [5]
Lead	< 15	15	mg/kg	1	12/13/11	12/13/11	JB	SW846 6010B [2]	SW846 3050B [5]
Mercury	< 0.27	0.27	mg/kg	1	12/13/11	12/13/11	JB	SW846 7471A [1]	SW846 7471A [4]
Nickel	9.3	8.9	mg/kg	1	12/13/11	12/13/11	JB	SW846 6010B [2]	SW846 3050B [5]
Selenium [a]	< 150	150	mg/kg	10	12/13/11	12/14/11	JB	SW846 6010B [2]	SW846 3050B [5]
Silver	< 8.9	8.9	mg/kg	1	12/13/11	12/13/11	JB	SW846 6010B [2]	SW846 3050B [5]
Zinc	24.0	8.9	mg/kg	1	12/13/11	12/13/11	JB	SW846 6010B [2]	SW846 3050B [5]

(1) Instrument QC Batch: MA2045
(2) Instrument QC Batch: MA2048
(3) Instrument QC Batch: MA2051
(4) Prep QC Batch: MP6451
(5) Prep QC Batch: MP6454
(6) Prep QC Batch: MP6455

(a) Elevated detection limit due to dilution required for possible matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	RESERVE CONTENTS		
Lab Sample ID:	D29894-1R	**Date Sampled:**	11/30/11
Matrix:	SO - Soil	**Date Received:**	12/01/11
		Percent Solids:	33.8
Project:	XOM FRU 297-20A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent [a]	< 1.2	1.2	mg/kg	1	12/15/11 15:44	AMA	SW846 3060A/7196A
Chromium, Trivalent [b]	23.2	4.2	mg/kg	1	12/15/11 15:44	AMA	SW846 3060/7196A M
Redox Potential Vs H2	82.3		mv	1	12/14/11 09:00	JK	ASTM D1498-76M
Solids, Percent	33.8		%	1	12/13/11	SWT	SM19 2540B M
Specific Conductivity	11200	1.0	umhos/cm	1	12/15/11	JD	DEPT.OF AG, BOOK N9
pH	12.87		su	1	12/14/11 09:00	JK	SW846 9045C

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.
(b) Calculated as: (Chromium) - (Chromium, Hexavalent)

RL = Reporting Limit

Report of Analysis

Client Sample ID: RESERVE CONTENTS
Lab Sample ID: D29894-1RA
Matrix: SO - Soil
Project: XOM FRU 297-20A

Date Sampled: 11/30/11
Date Received: 12/01/11
Percent Solids: 33.4

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	269	2.0	mg/l	1	12/15/11	12/15/11	JB	SW846 6010B [1]	EPA 200.7 [2]
Magnesium	< 1.0	1.0	mg/l	1	12/15/11	12/15/11	JB	SW846 6010B [1]	EPA 200.7 [2]
Sodium	1020	2.0	mg/l	1	12/15/11	12/15/11	JB	SW846 6010B [1]	EPA 200.7 [2]

(1) Instrument QC Batch: MA2052
(2) Prep QC Batch: MP6487

RL = Reporting Limit

Report of Analysis

Client Sample ID:	RESERVE CONTENTS		
Lab Sample ID:	D29894-1RA	**Date Sampled:**	11/30/11
Matrix:	SO - Soil	**Date Received:**	12/01/11
		Percent Solids:	33.4
Project:	XOM FRU 297-20A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio [a]	17.1		ratio	1	12/15/11 10:33	JB	USDA HANDBOOK 60

(a) Calculated as: (Na meq/L) / sqrt [(Ca meq/L)+ (Mg meq/L)/2]

RL = Reporting Limit

Mountain States ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

PAGE 1 OF 1

ACCUTEST LABORATORIES

Accutest Laboratories Mountain States
4036 Youngfield Street Wheat Ridge, Co 80033
TEL. 303-425-6021 877-737-4521
FAX 303-425-6021

FED-EX Tracking # | Bottle Order Control #
Accutest Quote # | Accutest Job # D29894

Client / Reporting Information

Company Name: KRW Consulting Inc
Street Address: 8000 W. 14th Ave Ste 200
City: Lakewood State: CO Zip: 80214
Project Contact: Dwayne Knudson E-mail:
Phone #: 9706754066 Fax #:
Sampler(s) Name(s): Craig Burger Phone #: 970 756 2993

Project Information

Project Name: Xom FRU 297-20A
Street:
City:
Project#: 1108-10A
Client PO#:
Project Manager: Joe Hess

Billing Information (If different from Report to)

Company Name:
Street Address:
City State Zip:
Attention: PO#:

Requested Analysis (see TEST CODE sheet)

Table 910-1

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
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

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Bisulfite	LAB USE ONLY
	Reserve Contents		11-30-11	13:00	CAB	SO	5					5					01

Turnaround Time (Business days)

- [ ] Std. 10 Business Days
- [ ] Std. 5 Business Days (By Contract only)
- [ ] 5 Day RUSH
- [x] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] Commercial "B" +Narrative
- [ ] FULLT1 (Level 3+4)
- [ ] State Forms
- [ ] EDD Format
- [x] PDF

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Comments / Special Instructions

Please email results to KRW
Pilcante & XOM Team
Please run TPH + BTEX, hold
other analytes pending results

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		16:00 11/30/11	1 Rifle Service Center	2		2 12/1 2:20
3			3	4		4
5			5			

Custody Seal # HDCO [x] Intact [ ] Not Intact | Preserved where applicable [ ] | On Ice [x] | Cooler Temp. 5.9

D29894: Chain of Custody
Page 1 of 3

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D29894 **Client:** KRW CONSULTING INC. **Immediate Client Services Action Required:** No

Date / Time Received: 12/1/2011 2:20:00 PM **No. Coolers:** 1 **Client Service Action Required at Login:** No

Project: XOM FRU 297-20A **Airbill #'s:** HD/CO

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	Infared gun		
3. Cooler media:	Ice (bag)		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	
2. Trip Blank listed on COC:	☐		☐	
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume rec'd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V:(303) 425-6021

4036 Youngfield Street
F: (303) 425-6854

Wheat Ridge, CO
www/accutest.com

D29894: Chain of Custody
Page 2 of 3

Job Change Order: D29894_12/12/2011

Requested	12/12/2011	**Received Date:**	12/1/2011
Account Name:	KRW Consulting, Inc.	**Due Date:**	12/6/2011
Project	XOM FRU 297-20A	**Deliverable:**	COMMBN
CSR:	RR	**TAT (Days):**	3

Sample #:
D29894-1

Change: Please log the remainder of Table 9-10 to an R sample and analyze on a 3 day turn. Thank you.

RESERVE CONTENTS

Above Changes Per: Dwayne Knudson - Client **Date:** 12/12/2011

To Client: This Change Order is confirmation of the revisions, previously discussed with the Accutest Client Service Representative.

D29894: Chain of Custody
Page 3 of 3

ACCUTEST LABORATORIES
D29894

Mountain States ACCUTEST LABORATORIES

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: D29894
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM FRU 297-20A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V860-MB	3V14831.D	1	12/02/11	KV	n/a	n/a	V3V860

The QC reported here applies to the following samples: **Method:** SW846 8260B

D29894-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	50	22	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	200	100	ug/kg	

CAS No.	Surrogate Recoveries		Limits
2037-26-5	Toluene-D8	116%	61-130%
460-00-4	4-Bromofluorobenzene	116%	53-131%
17060-07-0	1,2-Dichloroethane-D4	104%	62-130%

Blank Spike Summary

Job Number: D29894
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM FRU 297-20A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V860-BS	3V14832.D	1	12/02/11	KV	n/a	n/a	V3V860

The QC reported here applies to the following samples: **Method:** SW846 8260B

D29894-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	2500	2460	98	70-130
100-41-4	Ethylbenzene	2500	2440	98	70-130
108-88-3	Toluene	2500	2410	96	70-130
1330-20-7	Xylene (total)	7500	7250	97	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	112%	61-130%
460-00-4	4-Bromofluorobenzene	119%	53-131%
17060-07-0	1,2-Dichloroethane-D4	102%	62-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D29894
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM FRU 297-20A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D29909-9MS	3V14834.D	1	12/02/11	KV	n/a	n/a	V3V860
D29909-9MSD	3V14835.D	1	12/02/11	KV	n/a	n/a	V3V860
D29909-9	3V14833.D	1	12/02/11	KV	n/a	n/a	V3V860

The QC reported here applies to the following samples: **Method:** SW846 8260B

D29894-1

CAS No.	Compound	D29909-9 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		2810	2830	101	2890	103	2	70-134/30
100-41-4	Ethylbenzene	ND		2810	2790	99	2780	99	0	70-137/30
108-88-3	Toluene	ND		2810	2760	98	2740	98	1	70-130/30
1330-20-7	Xylene (total)	ND		8420	8440	100	8410	100	0	61-131/30

CAS No.	Surrogate Recoveries	MS	MSD	D29909-9	Limits
2037-26-5	Toluene-D8	111%	110%	113%	61-130%
460-00-4	4-Bromofluorobenzene	127%	130%	121%	53-131%
17060-07-0	1,2-Dichloroethane-D4	103%	101%	106%	62-130%

Mountain States ACCUTEST LABORATORIES

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: D29894
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM FRU 297-20A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB800-MB	GB14150.D	1	12/02/11	SK	n/a	n/a	GGB800

The QC reported here applies to the following samples: **Method:** SW846 8015B

D29894-1

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	94%	60-140%

Blank Spike Summary

Job Number: D29894
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM FRU 297-20A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB800-BS	GB14151.D	1	12/02/11	SK	n/a	n/a	GGB800

The QC reported here applies to the following samples: **Method:** SW846 8015B

D29894-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	110	112	102	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	108%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D29894
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM FRU 297-20A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D29895-1MS	GB14153.D	1	12/02/11	SK	n/a	n/a	GGB800
D29895-1MSD	GB14154.D	1	12/02/11	SK	n/a	n/a	GGB800
D29895-1	GB14152.D	1	12/02/11	SK	n/a	n/a	GGB800

The QC reported here applies to the following samples: **Method:** SW846 8015B

D29894-1

CAS No.	Compound	D29895-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		130	131	101	131	101	0	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D29895-1	Limits
120-82-1	1,2,4-Trichlorobenzene	104%	101%	96%	60-140%

Mountain States ACCUTEST LABORATORIES

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: D29894
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM FRU 297-20A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4986-MB	FD12197.D	1	12/10/11	TR	12/10/11	OP4986	GFD631

The QC reported here applies to the following samples: **Method:** SW846-8015B

D29894-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	13	8.7	mg/kg	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	85%	43-136%

Blank Spike Summary

Job Number: D29894
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM FRU 297-20A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4986-BS	FD12198.D	1	12/10/11	TR	12/10/11	OP4986	GFD631

The QC reported here applies to the following samples: **Method:** SW846-8015B

D29894-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	534	80	58-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	82%	43-136%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D29894
Account: KRWCCOL KRW Consulting, Inc.
Project: XOM FRU 297-20A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP4986-MS	FD12199.D	1	12/10/11	TR	12/10/11	OP4986	GFD631
OP4986-MSD	FD12200.D	1	12/11/11	TR	12/10/11	OP4986	GFD631
D30152-1	FD12213.D	1	12/11/11	TR	12/10/11	OP4986	GFD631

The QC reported here applies to the following samples: **Method:** SW846-8015B

D29894-1

CAS No.	Compound	D30152-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	13.2	J	793	596	73	581	72	3	20-183/43

CAS No.	Surrogate Recoveries	MS	MSD	D30152-1	Limits
84-15-1	o-Terphenyl	75%	62%	71%	43-136%

Mountain States ACCUTEST LABORATORIES

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: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6451 Methods: SW846 7471A
Matrix Type: SOLID Units: mg/kg

Prep Date: 12/13/11

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.10	.0011	.013	-0.0016	<0.10

Associated samples MP6451: D29894-1R

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6451 Methods: SW846 7471A
Matrix Type: SOLID Units: mg/kg

Prep Date: 12/13/11

Metal	D30070-8 Original	MS	Spikelot HGWSR1	% Rec	QC Limits
Mercury	0.032	0.48	0.47	95.4	85-115

Associated samples MP6451: D29894-1R

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6451 Methods: SW846 7471A
Matrix Type: SOLID Units: mg/kg

Prep Date: 12/13/11

Metal	D30070-8 Original	MSD	Spikelot HGWSR1	% Rec	MSD RPD	QC Limit
Mercury	0.032	0.52	0.507	96.3	8.0	20

Associated samples MP6451: D29894-1R

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

8.1.2
8

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6451
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 12/13/11

Metal	BSP Result	Spikelot HGWSR1	% Rec	QC Limits
Mercury	0.40	0.4	100.0	80-120

Associated samples MP6451: D29894-1R

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6454
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 12/13/11

Metal	RL	IDL	MDL	MB raw	final
Aluminum	10	.59	.59		
Antimony	3.0	.31	.31		
Arsenic	2.5	.59	.59		
Barium	1.0	.11	.11	0.070	<1.0
Beryllium	1.0	.044	.1		
Boron	5.0	.48	.48		
Cadmium	1.0	.027	.27	0.030	<1.0
Calcium	40	.96	1.1		
Chromium	1.0	.018	.031	0.38	<1.0
Cobalt	0.50	.035	.035		
Copper	1.0	.085	.16	-0.080	<1.0
Iron	7.0	.34	2		
Lead	5.0	.16	.21	0.020	<5.0
Lithium	0.20	.028	.031		
Magnesium	20	.58	1.4		
Manganese	0.50	.0053	.012		
Molybdenum	1.0	.045	.054		
Nickel	3.0	.043	.099	0.0	<3.0
Phosphorus	10	1.1	1.2		
Potassium	200	5.5	9.2		
Selenium	5.0	.38	.5	-0.070	<5.0
Silicon	5.0	.38	.51		
Silver	3.0	.018	.051	0.020	<3.0
Sodium	40	11	11		
Strontium	5.0		.017		
Thallium	1.0	.29	.34		
Tin	5.0	.55	1.3		
Titanium	1.0	.011	.1		
Uranium	5.0	.15	.2		
Vanadium	1.0	.016	.025		
Zinc	3.0	.028	.06	1.2	<3.0

Associated samples MP6454: D29894-1R

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

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6454
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date:

Metal

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6454
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 12/13/11

Metal	D29894-1R Original	MS	Spikelot MPICPALL	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic					
Barium	17800	26700	580	1534.2(a	75-125
Beryllium					
Boron					
Cadmium	0.0	108	145	74.5N(b)	75-125
Calcium					
Chromium	23.9	135	145	76.6	75-125
Cobalt					
Copper	15.7	136	145	82.9	75-125
Iron					
Lead	9.3	232	290	76.8	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel	9.3	115	145	72.9N(b)	75-125
Phosphorus	anr				
Potassium					
Selenium	18.0	339	290	110.7	75-125
Silicon					
Silver	0.0	47.3	58	81.5	75-125
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc	24.0	126	145	70.3N(b)	75-125

Associated samples MP6454: D29894-1R

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

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6454 Methods: SW846 6010B
Matrix Type: SOLID Units: mg/kg

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
(b) Spike recovery indicates possible matrix interference.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6454 Methods: SW846 6010B
Matrix Type: SOLID Units: mg/kg

Prep Date: 12/13/11

Metal	D29894-1R Original	MSD	Spikelot MPICPALL	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium	17800	24800	569	1230.3(a	7.4	20
Beryllium						
Boron						
Cadmium	0.0	105	142	73.8N(b)	2.8	20
Calcium						
Chromium	23.9	132	142	76.0	2.2	20
Cobalt						
Copper	15.7	133	142	82.5	2.2	20
Iron						
Lead	9.3	227	284	76.5	2.2	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel	9.3	112	142	72.2N(b)	2.6	20
Phosphorus	anr					
Potassium						
Selenium	18.0	332	284	110.4	2.1	20
Silicon						
Silver	0.0	45.6	56.9	80.1	3.7	20
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc	24.0	123	142	69.6N(b)	2.4	20

Associated samples MP6454: D29894-1R

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

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6454 Methods: SW846 6010B
Matrix Type: SOLID Units: mg/kg

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
(b) Spike recovery indicates possible matrix interference.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6454
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 12/13/11

Metal	BSP Result	Spikelot MPICPALL	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium	172	200	86.0	80-120
Beryllium				
Boron				
Cadmium	41.4	50	82.8	80-120
Calcium				
Chromium	42.5	50	85.0	80-120
Cobalt				
Copper	42.6	50	85.2	80-120
Iron				
Lead	84.1	100	84.1	80-120
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	41.2	50	82.4	80-120
Phosphorus	anr			
Potassium				
Selenium	85.6	100	85.6	80-120
Silicon				
Silver	17.7	20	88.5	80-120
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	40.9	50	81.8	80-120

Associated samples MP6454: D29894-1R

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

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6454
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date:

Metal

(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6454
Matrix Type: SOLID

Methods: SW846 6010B
Units: ug/l

Prep Date: 12/13/11

Metal	D29894-1R Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium	58200	63700	5.7	0-10
Beryllium				
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	80.7	83.0	2.9	0-10
Cobalt				
Copper	53.0	40.0	24.5*(a)	0-10
Iron				
Lead	31.3	0.00	100.0(b)	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	31.6	30.0	5.1	0-10
Phosphorus	anr			
Potassium				
Selenium	15.1	270	342.6(b)	0-10
Silicon				
Silver	0.00	2.50		0-10
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	81.0	87.5	8.0	0-10

Associated samples MP6454: D29894-1R

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

SERIAL DILUTION RESULTS SUMMARY

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6454
Matrix Type: SOLID

Methods: SW846 6010B
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested
(a) Serial dilution indicates possible matrix interference.
(b) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6455 Methods: SW846 6020
Matrix Type: SOLID Units: mg/kg

Prep Date: 12/13/11

Metal	RL	IDL	MDL	MB raw	final
Aluminum	25	.14	1.2		
Antimony	0.20	.001	.0095		
Arsenic	0.40	.049	.22	-0.055	<0.40
Barium	1.0	.0035	.1		
Beryllium	0.10	.0075	.014		
Boron	20	.97	1		
Cadmium	0.050	.023	.048		
Calcium	200	1.8	8.2		
Chromium	1.0	.021	.24		
Cobalt	0.10	.0033	.003		
Copper	1.0	.011	.063		
Iron	20	.81	3.7		
Lead	0.25	.0012	.015		
Magnesium	50	.067	2.6		
Manganese	0.50	.007	.029		
Molybdenum	0.50	.0044	.023		
Nickel	1.0	.0029	.031		
Phosphorus	30	1.8	3.5		
Potassium	100	2	3.2		
Selenium	0.20	.075	.19		
Silver	0.050	.0008	.002		
Sodium	250	.8	4.4		
Strontium	10	.004	.04		
Thallium	0.10	.015	.02		
Tin	5.0	.006	.028		
Titanium	1.0	.035	.062		
Uranium	0.25	.00038	.0009		
Vanadium	2.0	.052	.29		
Zinc	5.0	.039	.12		

Associated samples MP6455: D29894-1R

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6455
Matrix Type: SOLID

Methods: SW846 6020
Units: mg/kg

Prep Date: 12/13/11

Metal	D29894-1R Original	MS	Spikelot MPICPALL	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	4.3	253	290	85.7	75-125
Barium					
Beryllium					
Boron					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead	anr				
Magnesium					
Manganese					
Molybdenum					
Nickel					
Phosphorus					
Potassium					
Selenium					
Silver					
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc					

Associated samples MP6455: D29894-1R

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6455 Methods: SW846 6020
Matrix Type: SOLID Units: mg/kg

Prep Date: 12/13/11

Metal	D29894-1R Original	MSD	Spikelot MPICPALL	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	4.3	246	284	85.0	2.8	20
Barium						
Beryllium						
Boron						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead	anr					
Magnesium						
Manganese						
Molybdenum						
Nickel						
Phosphorus						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc						

Associated samples MP6455: D29894-1R

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6455
Matrix Type: SOLID

Methods: SW846 6020
Units: mg/kg

Prep Date: 12/13/11

Metal	BSP Result	Spikelot MPICPALL	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	91.2	100	91.2	80-120
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	anr			
Magnesium				
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP6455: D29894-1R

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6455
Matrix Type: SOLID

Methods: SW846 6020
Units: ug/l

Prep Date: 12/13/11

Metal	D29894-1R Original	SDL 5:25	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	14.5	14.9	3.1	0-10
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	anr			
Magnesium				
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP6455: D29894-1R

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6487
Matrix Type: AQUEOUS

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

Prep Date: 12/15/11

Metal	RL	IDL	MDL	MB raw	final
Aluminum	500	30	30		
Antimony	150	16	16		
Arsenic	130	30	30		
Barium	50	5.5	5.5		
Beryllium	50	2.2	2.5		
Boron	250	24	24		
Cadmium	50	1.4	1.4		
Calcium	2000	48	75	-27	<2000
Chromium	50	.9	4		
Cobalt	25	1.8	1.8		
Copper	50	4.3	14		
Iron	350	17	65		
Lead	250	8	11		
Lithium	10	1.4	6		
Magnesium	1000	29	50	8.0	<1000
Manganese	25	.27	1.6		
Molybdenum	50	2.3	4.4		
Nickel	150	2.2	5		
Phosphorus	500	55	100		
Potassium	5000	280	280		
Selenium	250	19	19		
Silicon	250	19	19		
Silver	150	.9	1.6		
Sodium	2000	570	570	-34	<2000
Strontium	25		1.3		
Thallium	50	15	15		
Tin	250	28	50		
Titanium	50	.55	1.6		
Uranium	250	7.5	18		
Vanadium	50	.8	1.1		
Zinc	150	1.4	9		

Associated samples MP6487: D29894-1RA

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

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6487
Matrix Type: AQUEOUS

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

Prep Date:

Metal

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6487
Matrix Type: AQUEOUS

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

Prep Date: 12/15/11

Metal	D29894-1RA Original MS		Spikelot MPICPALL	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Boron					
Cadmium					
Calcium	269000	417000	125000	118.4	75-125
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Lithium					
Magnesium	107	127000	125000	101.5	75-125
Manganese					
Molybdenum					
Nickel					
Phosphorus					
Potassium					
Selenium					
Silicon					
Silver					
Sodium	1020000	1130000	125000	88.0	75-125
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc					

Associated samples MP6487: D29894-1RA

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

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6487
Matrix Type: AQUEOUS

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

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6487
Matrix Type: AQUEOUS

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

Prep Date: 12/15/11

Metal	D29894-1RA Original	MSD	Spikelot MPICPALL	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium						
Boron						
Cadmium						
Calcium	269000	422000	125000	122.4	1.2	20
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Lithium						
Magnesium	107	125000	125000	99.9	1.6	20
Manganese						
Molybdenum						
Nickel						
Phosphorus						
Potassium						
Selenium						
Silicon						
Silver						
Sodium	1020000	1150000	125000	104.0	1.8	20
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc						

Associated samples MP6487: D29894-1RA

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

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6487
Matrix Type: AQUEOUS

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

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6487
Matrix Type: AQUEOUS

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

Prep Date: 12/15/11

Metal	BSP Result	Spikelot MPICPALL	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium	145000	125000	116.0	80-120
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Lithium				
Magnesium	126000	125000	100.8	80-120
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium	123000	125000	98.4	80-120
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP6487: D29894-1RA

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

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

QC Batch ID: MP6487
Matrix Type: AQUEOUS

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

Prep Date:

Metal

(anr) Analyte not requested

Mountain States ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

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

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Specific Conductivity	GP6125/GN12904			umhos/cm	10008	9880	98.7	90-110%
pH	GN12889			su	8.00	7.99	99.9	99.3-100.7%

Associated Samples:
Batch GN12889: D29894-1R
Batch GP6125: D29894-1R
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D29894
Account: KRWCCOL - KRW Consulting, Inc.
Project: XOM FRU 297-20A

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Redox Potential Vs H2	GN12893	D30239-1	mv	375	384	2.4	0-20%

Associated Samples:
Batch GN12893: D29894-1R
(*) Outside of QC limits

Mountain States ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

ACCUTEST

4036 Youngfield St., Wheat Ridge, CO 80033
303-425-6021 FAX: 303-425-6854

Accutest Job #:	D29894
Accutest Quote #:	0
AMS P.O. #:	
Project No.:	

Client Information			Subcontract Laboratory Information			Analytical Information
Name: Accutest Mountain States (AMS)			Name: Accutest - New England			
Address: 4036 Youngfield St.			Address: 495 Technology Center West, BLDG C			
City: Wheat Ridge,	State: CO	Zip: 80033	City: Marlborough	State: MA	Zip: 01752	
Send Report to: Tiffany Pham			Contact: Sample Management			
Any questions contact: Shea Greiner						
Phone/Fax #: (303) 425-6021; (303)425-6854			Phone: (508) 481-6200			

Field ID / Point of Collection	Collection Date	Collection Time	Matrix	# of bottles	Preservation: HCL	NaOH	HNO3	H2So4	None	XCRA	B8270SIMPAH910L				Comments
D29894 -1R	11/30/11	1:00 PM	Soil	1						X	X				

Turnaround Information

[X] 1 - 2 Business Day Rush
[ ] Other (Days)

RUSH!

Approved By:

10 Day Turnaround Hardcopy, RUSH is FAX Data unless previously approved.

Data Deliverable Information

- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] Commercial "BN"
- [ ] Reduced Tier 1
- [ ] Full Tier 1
- [ ] PDF
- [ ] Compact Disk Deliverable
- [ ] Electronic Delivery:
- [ ] State Forms
- [ ] Other (Specify)

Comments / Remarks

Please use Colorado regulations and RLs.

11E

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by:	Date & Time:	Received By:	Date & Time:
1	Jacob Dorfman	12/13/11 1700	1 FedEx	1
2	FedEx	12/14/11 9:30	2	2
3			3	3

For Subcontract Laborartory Use Only

Seal #: Headspace: Yes [ ] No [ ] NA [ ]

Preserved where applicable: [ ]

Temperature °C 1.7° On Ice [X]

10.1 10

D29894: Chain of Custody
Page 1 of 2
Accutest Labs of New England, Inc.

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D29894 **Client:** AMS **Immediate Client Services Action Required:** No

Date / Time Received: 12/14/2011 **Delivery Method:** **Client Service Action Required at Login:** No

Project: **No. Coolers:** 1 **Airbill #'s:**

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	Infared gun		
3. Cooler media:	Ice (bag)		

Quality Control Preservatio	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V:508.481.6200

495 Technology Center West, Bldg One
F: 508.481.7753

Marlborough, MA
www/accutest.com

D29894: Chain of Custody
Page 2 of 2

Mountain States ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

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

Method Blank Summary

Job Number: D29894
Account: ALMS Accutest Mountain States
Project: KRWCCOL: XOM FRU 297-20A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP27236-MB	U3947.D	1	12/15/11	KR	12/14/11	OP27236	MSU239

The QC reported here applies to the following samples: **Method:** SW846 8270C BY SIM

D29894-1R

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	0.56	ug/kg	
120-12-7	Anthracene	ND	4.8	0.78	ug/kg	
56-55-3	Benzo(a)anthracene	ND	4.8	0.60	ug/kg	
50-32-8	Benzo(a)pyrene	ND	4.8	0.70	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.59	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.93	ug/kg	
218-01-9	Chrysene	ND	4.8	0.75	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.4	ug/kg	
206-44-0	Fluoranthene	ND	4.8	0.77	ug/kg	
86-73-7	Fluorene	ND	4.8	0.43	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.2	ug/kg	
91-20-3	Naphthalene	ND	4.8	1.1	ug/kg	
129-00-0	Pyrene	ND	4.8	1.7	ug/kg	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	84%	30-130%
321-60-8	2-Fluorobiphenyl	86%	30-130%
1718-51-0	Terphenyl-d14	96%	30-130%

Blank Spike Summary

Job Number: D29894
Account: ALMS Accutest Mountain States
Project: KRWCCOL: XOM FRU 297-20A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP27236-BS	U3948.D	1	12/15/11	KR	12/14/11	OP27236	MSU239

The QC reported here applies to the following samples: **Method:** SW846 8270C BY SIM

D29894-1R

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
83-32-9	Acenaphthene	2470	2210	90	40-140
120-12-7	Anthracene	2470	2150	87	40-140
56-55-3	Benzo(a)anthracene	2470	2620	106	40-140
50-32-8	Benzo(a)pyrene	2470	1950	79	40-140
205-99-2	Benzo(b)fluoranthene	2470	2260	92	40-140
207-08-9	Benzo(k)fluoranthene	2470	2280	92	40-140
218-01-9	Chrysene	2470	2280	92	40-140
53-70-3	Dibenzo(a,h)anthracene	2470	2150	87	40-140
206-44-0	Fluoranthene	2470	2170	88	40-140
86-73-7	Fluorene	2470	2260	92	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	2470	2180	88	40-140
91-20-3	Naphthalene	2470	2100	85	40-140
129-00-0	Pyrene	2470	2250	91	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	86%	30-130%
321-60-8	2-Fluorobiphenyl	88%	30-130%
1718-51-0	Terphenyl-d14	94%	30-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D29894
Account: ALMS Accutest Mountain States
Project: KRWCCOL: XOM FRU 297-20A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP27236-MS	U3983.D	5	12/16/11	KR	12/14/11	OP27236	MSU243
OP27236-MSD	U3984.D	5	12/16/11	KR	12/14/11	OP27236	MSU243
MC6398-4	U3985.D	5	12/16/11	KR	12/14/11	OP27236	MSU243

The QC reported here applies to the following samples: **Method:** SW846 8270C BY SIM

D29894-1R

CAS No.	Compound	MC6398-4 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	265		2470	2780	102	2920	109	5	40-140/30
120-12-7	Anthracene	712		2470	3330	106	3390	110	2	40-140/30
56-55-3	Benzo(a)anthracene	3040		2470	6180	127	6520	144* [a]	5	40-140/30
50-32-8	Benzo(a)pyrene	2480		2470	4590	85	4880	99	6	40-140/30
205-99-2	Benzo(b)fluoranthene	2390		2470	4900	102	5170	115	5	40-140/30
207-08-9	Benzo(k)fluoranthene	2460		2470	4880	98	5070	108	4	40-140/30
218-01-9	Chrysene	3240		2470	5860	106	6350	128	8	40-140/30
53-70-3	Dibenzo(a,h)anthracene	986		2470	3210	90	3630	109	12	40-140/30
206-44-0	Fluoranthene	5740		2470	9200	140	10100	180* [b]	9	40-140/30
86-73-7	Fluorene	345		2470	2790	99	2930	107	5	40-140/30
193-39-5	Indeno(1,2,3-cd)pyrene	1940		2470	4390	99	5070	129	14	40-140/30
91-20-3	Naphthalene	190		2470	2450	92	2500	95	2	40-140/30
129-00-0	Pyrene	4900		2470	7530	107	8330	141* [b]	10	40-140/30

CAS No.	Surrogate Recoveries	MS	MSD	MC6398-4	Limits
4165-60-0	Nitrobenzene-d5	84%	87%	86%	30-130%
321-60-8	2-Fluorobiphenyl	100%	101%	98%	30-130%
1718-51-0	Terphenyl-d14	93%	95%	97%	30-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(b) Outside control limits due to high level in sample relative to spike amount.

Mountain States ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

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

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D29894
Account: ALMS - Accutest Mountain States
Project: KRWCCOL: XOM FRU 297-20A

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chromium, Hexavalent	GP13918/GN37214	0.40	0.17	mg/kg	40	37.4	93.5	80-120%
Chromium, Hexavalent	GP13918/GN37214			mg/kg	837	883	105.5	80-120%

Associated Samples:
Batch GP13918: D29894-1R
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D29894
Account: ALMS - Accutest Mountain States
Project: KRWCCOL: XOM FRU 297-20A

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chromium, Hexavalent	GP13918/GN37214	D30086-11	mg/kg	0.0	0.0	0.0	0-20%

Associated Samples:
Batch GP13918: D29894-1R
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D29894
Account: ALMS - Accutest Mountain States
Project: KRWCCOL: XOM FRU 297-20A

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chromium, Hexavalent	GP13918/GN37214	D30086-11	mg/kg	0.0	41.1	43.9	106.9	75-125%
Chromium, Hexavalent	GP13918/GN37214	D30086-11	mg/kg	0.0	742	882	118.8	75-125%

Associated Samples:
Batch GP13918: D29894-1R
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits